

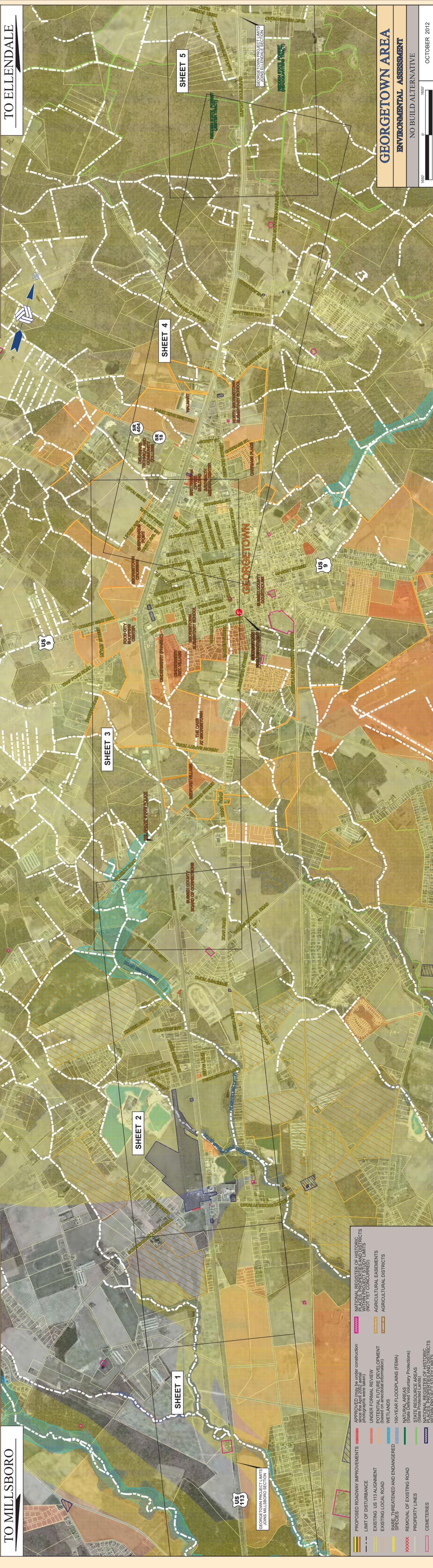


## APPENDIX A: ALIGNMENT SHEETS



TO MILLSBORO

TO ELLENDALE



	PROPOSED ROADWAY IMPROVEMENTS		NATIONAL REGISTER OF HISTORIC PLACES PROJECT LIMITS AND DISTRICTS WITHIN PROJECT STUDY LIMITS (NOT YET CONURRED)
	LIMIT OF DISTURBANCE		AGRICULTURAL EASEMENTS
	EXISTING US 113 ALIGNMENT		AGRICULTURAL DISTRICTS
	EXISTING LOCAL ROAD		WETLANDS
	RARE, THREATENED AND ENDANGERED SPECIES		100-YEAR FLOODPLAINS (FEMA)
	REMOVAL OF EXISTING ROAD		NATURAL AREAS (State Defined Voluntary Protections)
	PROPERTY LINES		STATE RESOURCE AREAS (State Protected Lands)
	CEMETERIES		NATIONAL REGISTER OF HISTORIC PLACES PROJECT STUDY LIMITS

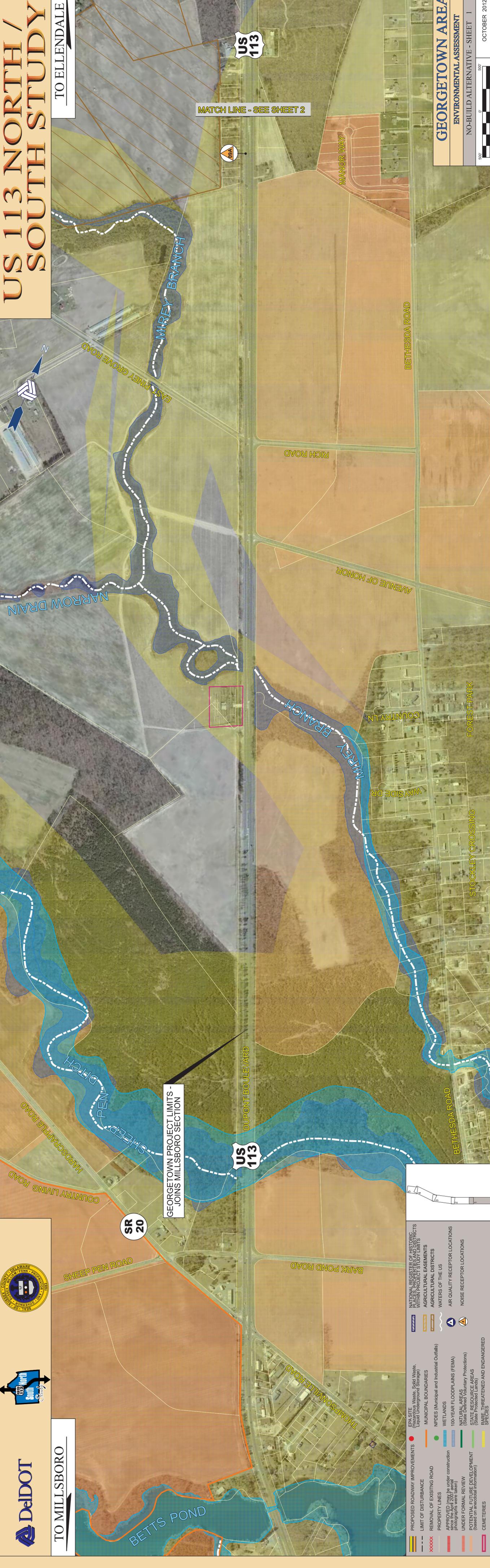
**GEORGETOWN AREA**  
**ENVIRONMENTAL ASSESSMENT**  
 NO BUILD ALTERNATIVE  
 1850' 0' 1850'  
 OCTOBER 2012



# US 113 NORTH / SOUTH STUDY

TO MILLSBORO

TO ELLENDALE



GEORGETOWN PROJECT LIMITS - JOINS MILLSBORO SECTION

MATCH LINE - SEE SHEET 2

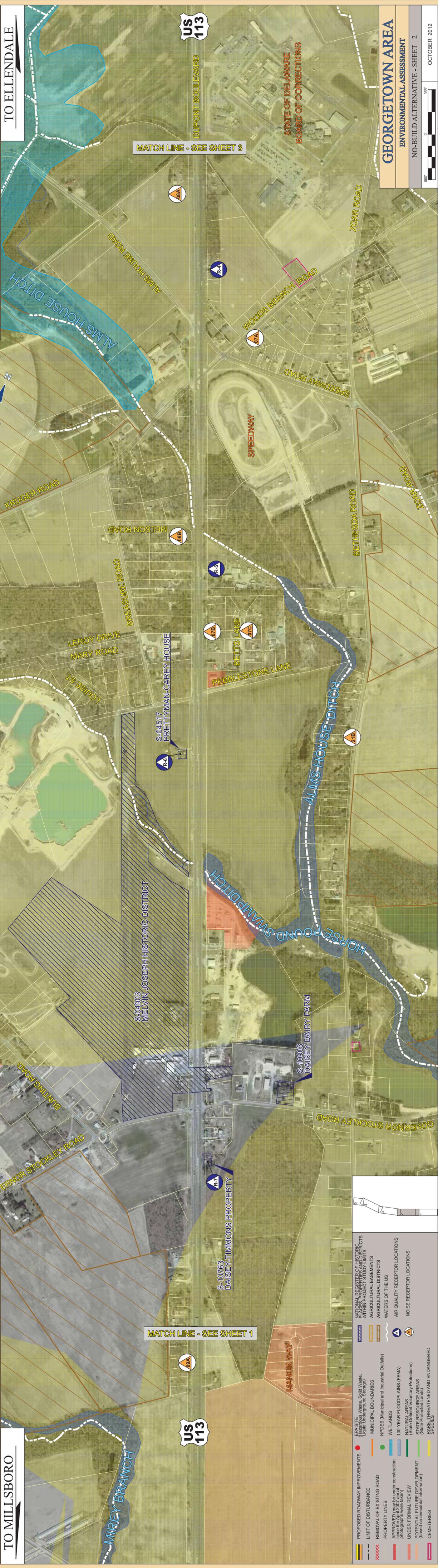
- PROPOSED ROADWAY IMPROVEMENTS
- LIMIT OF DISTURBANCE
- REMOVAL OF EXISTING ROAD
- PROPERTY LINES
- APPROVED (may be under construction)
- UNDER FORMAL REVIEW
- POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)
- CEMETERIES
- EPA SITE (Hazardous Waste, Solid Waste, Liquid Underground Storage)
- MUNICIPAL BOUNDARIES
- NPDES (Municipal and Industrial Outfalls)
- WETLANDS
- 100-YEAR FLOODPLAINS (FEWA)
- NATURAL AREAS (State Defined Voluntary Protections)
- STATE RESOURCE AREAS (State Protected Lands)
- RARE, THREATENED AND ENDANGERED SPECIES
- NATIONAL REGISTER OF HISTORIC PLACES, PROJECT STUDY LIMITS WITHIN PROJECT STUDY LIMITS
- AGRICULTURAL EASEMENTS
- AGRICULTURAL DISTRICTS
- WATERS OF THE US
- AIR QUALITY RECEPTOR LOCATIONS
- NOISE RECEPTOR LOCATIONS

**GEORGETOWN AREA**  
 ENVIRONMENTAL ASSESSMENT  
 NO-BUILD ALTERNATIVE - SHEET 1  
 OCTOBER 2012



TO MILLSBORO

TO ELLENDALE



MATCH LINE - SEE SHEET 1

MATCH LINE - SEE SHEET 3

	PROPOSED ROADWAY IMPROVEMENTS		EPA SITE (Hazardous Waste, Solid Waste, Liquid Underground Storage)
	LIMIT OF DISTURBANCE		MUNICIPAL BOUNDARIES
	REMOVAL OF EXISTING ROAD		NPDES (Municipal and Industrial Outfalls)
	PROPERTY LINES		WETLANDS
	APPROVED (may be under construction)		100-YEAR FLOODPLAINS (FEMA)
	UNDER FORMAL REVIEW (State Defined Voluntary Protections)		NATURAL AREAS (State Defined Voluntary Protections)
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		STATE RESOURCE AREAS (State Protected Lands)
	CEMETERIES		RARE, THREATENED AND ENDANGERED SPECIES
	NATIONAL REGISTER OF HISTORIC PLACES, PROJECT STUDY LIMITS WITHIN PROJECT STUDY LIMITS		AGRICULTURAL EASEMENTS
	AGRICULTURAL DISTRICTS		WATERS OF THE US
	AIR QUALITY RECEPTOR LOCATIONS		NOISE RECEPTOR LOCATIONS

**GEORGETOWN AREA**  
 ENVIRONMENTAL ASSESSMENT  
 NO-BUILD ALTERNATIVE - SHEET 2  
 OCTOBER 2012





# US 113 NORTH / SOUTH STUDY

TO ELLENDALE

TO MILLSBORO



MATCH LINE - SHEET 5

MATCH LINE - SEE SHEET 3

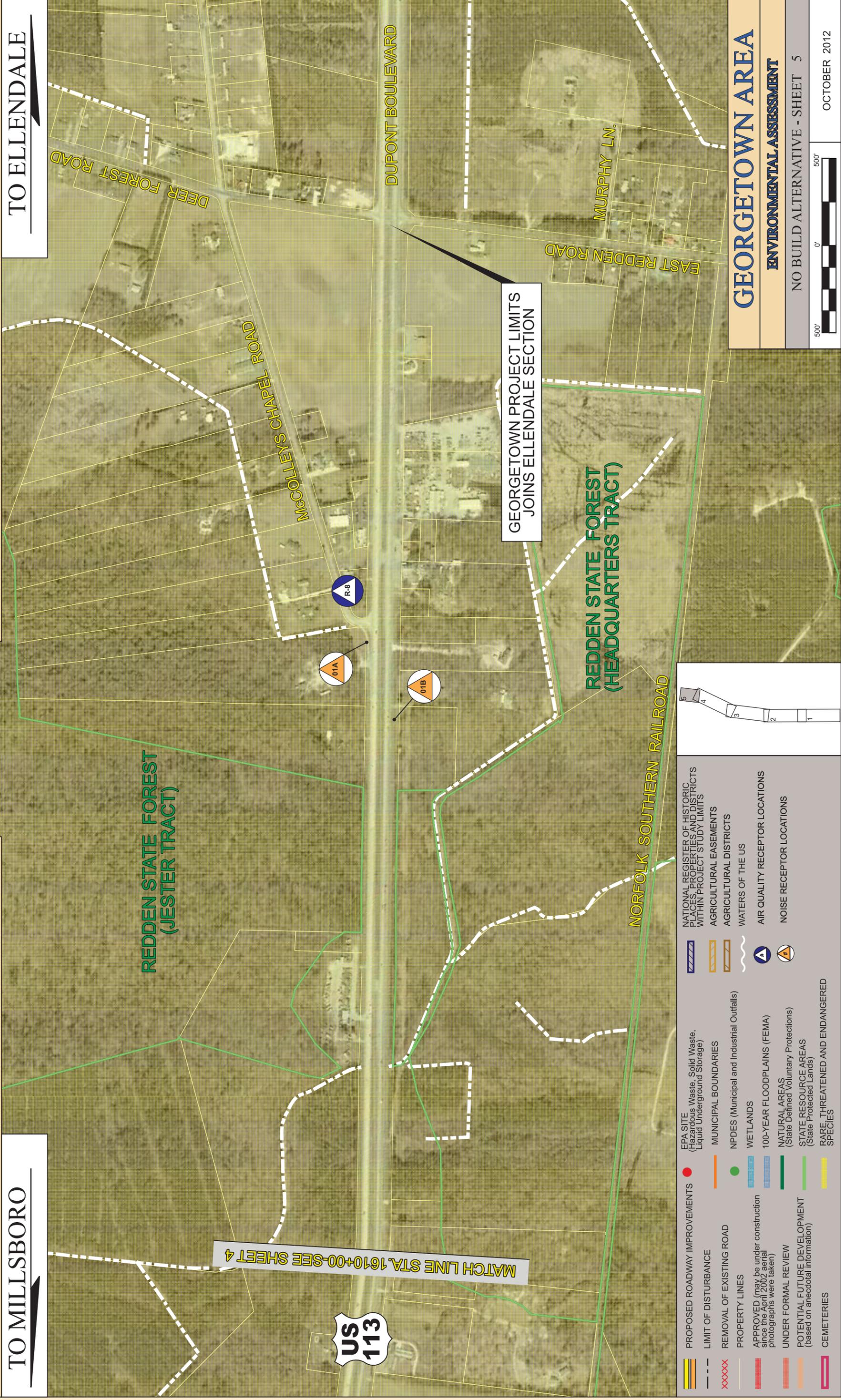
**GEORGETOWN AREA**  
**ENVIRONMENTAL ASSESSMENT**  
 NO-BUILD ALTERNATIVE - SHEET 4  
 OCTOBER 2012

	EPA SITE		NATIONAL REGISTER OF HISTORIC PLACES, PROPERTIES AND DISTRICTS WITHIN PROJECT STUDY LIMITS
	MUNICIPAL BOUNDARIES		AGRICULTURAL EASEMENTS
	WETLANDS		WATERS OF THE US
	NPDES (Municipal and Industrial Outfalls)		AIR QUALITY RECEPTOR LOCATIONS
	100-YEAR FLOODPLAINS (FEMA)		NOISE RECEPTOR LOCATIONS
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	RARE, THREATENED AND ENDANGERED SPECIES		
	CEMETERIES		
	PROPOSED ROADWAY IMPROVEMENTS		
	LIMIT OF DISTURBANCE		
	REMOVAL OF EXISTING ROAD		
	APPROVED (may be under construction)		
	STATE DEFINED VOLUNTARY PROTECTIONS		
	POTENTIAL FUTURE DEVELOPMENT		
	RARE, THREATENED AND ENDANGERED SPECIES		
	CEMETERIES		

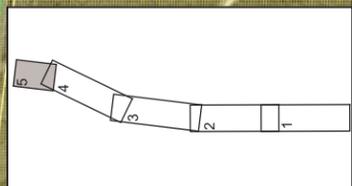
# US 113 NORTH / SOUTH STUDY

TO MILLSBORO

TO ELLENDALE



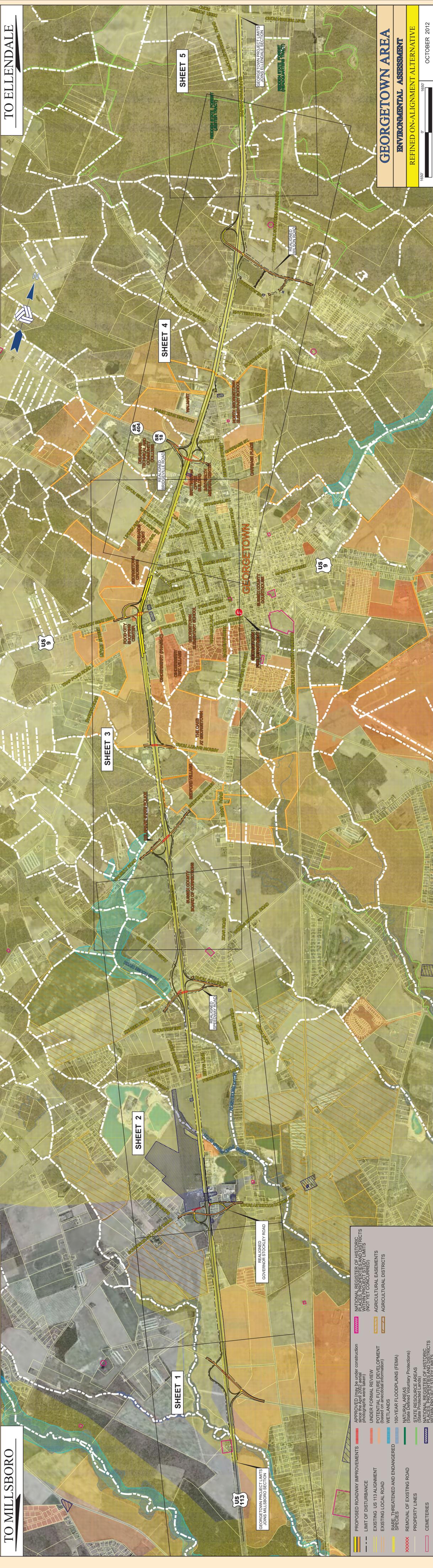
	PROPOSED ROADWAY IMPROVEMENTS		EPA SITE (Hazardous Waste, Solid Waste, Liquid Underground Storage)		NATIONAL REGISTER OF HISTORIC PLACES, PROPERTIES AND DISTRICTS WITHIN PROJECT STUDY LIMITS
	LIMIT OF DISTURBANCE		MUNICIPAL BOUNDARIES		AGRICULTURAL DISTRICTS
	REMOVAL OF EXISTING ROAD		NPDES (Municipal and Industrial Outfalls)		WATERS OF THE US
	PROPERTY LINES		WETLANDS		AIR QUALITY RECEPTOR LOCATIONS
	APPROVED (may be under construction since the April 2002 aerial photographs were taken)		100-YEAR FLOODPLAINS (FEMA)		NOISE RECEPTOR LOCATIONS
	UNDER FORMAL REVIEW		NATURAL AREAS (State Defined Voluntary Protections)		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		STATE RESOURCE AREAS (State Protected Lands)		
	CEMETERIES		RARE, THREATENED AND ENDANGERED SPECIES		



**GEORGETOWN AREA**  
**ENVIRONMENTAL ASSESSMENT**  
 NO BUILD ALTERNATIVE - SHEET 5  
 500' 0' 500'  
 OCTOBER 2012

TO MILLSBORO

TO ELLENDALE



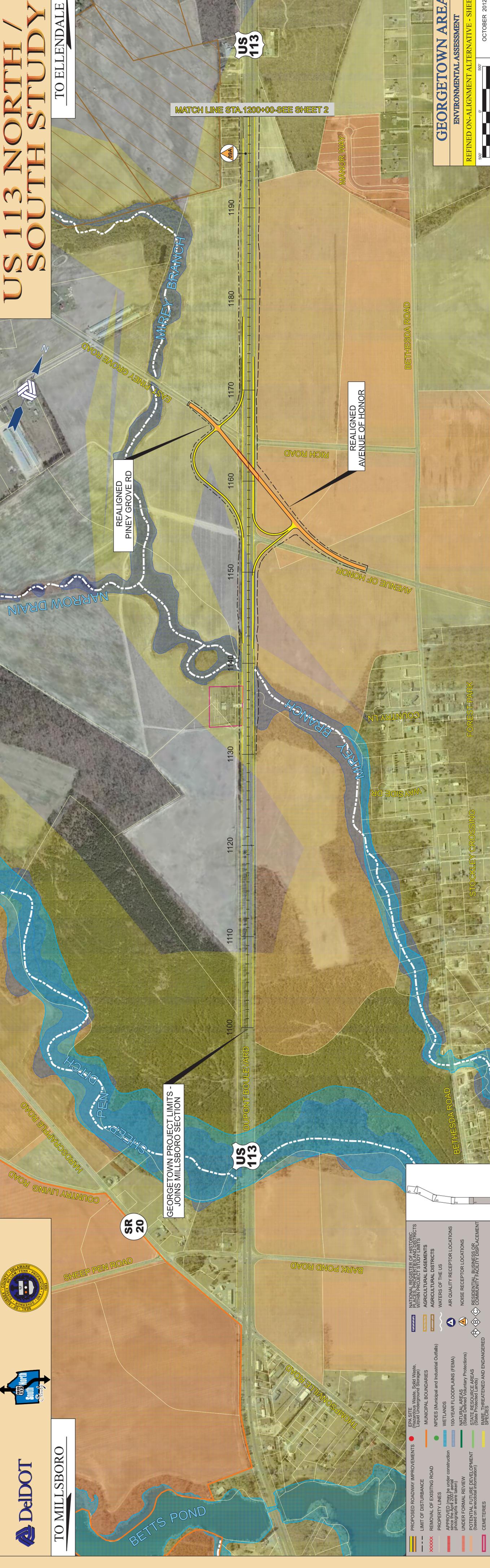
	PROPOSED ROADWAY IMPROVEMENTS		NATIONAL REGISTER OF HISTORIC PLACES, PROJECT LIMITS AND DISTRICTS WITHIN PROJECT STUDY LIMITS (NOT YET CONURRED)
	LIMIT OF DISTURBANCE		AGRICULTURAL EASEMENTS
	EXISTING US 113 ALIGNMENT		AGRICULTURAL DISTRICTS
	EXISTING LOCAL ROAD		WETLANDS
	RARE, THREATENED AND ENDANGERED SPECIES		100-YEAR FLOODPLAINS (FEMA)
	REMOVAL OF EXISTING ROAD		NATURAL AREAS (State Defined / Voluntary Protections)
	PROPERTY LINES		STATE RESOURCE AREAS (State Protected Lands)
	CEMETERIES		NATIONAL REGISTER OF HISTORIC PLACES, PROJECT LIMITS AND DISTRICTS WITHIN PROJECT STUDY LIMITS



# US 113 NORTH / SOUTH STUDY

TO MILLSBORO

TO ELLENDALE



MATCH LINE STA. 1200+00-SEE SHEET 2

	PROPOSED ROADWAY IMPROVEMENTS		EPA SITE (Hazardous Waste, Solid Waste, Liquid Underground Storage)
	LIMIT OF DISTURBANCE		NATIONAL REGISTER OF HISTORIC PLACES, PROPERTIES AND DISTRICTS WITHIN PROJECT STUDY LIMITS
	PROPERTY LINES		AGRICULTURAL EASEMENTS
	APPROVED (may be under construction)		AGRICULTURAL DISTRICTS
	UNDER FORMAL REVIEW		WATERS OF THE US
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		AIR QUALITY RECEPTOR LOCATIONS
			NOISE RECEPTOR LOCATIONS
			RESIDENTIAL-BUSINESS OR COMMUNITY FACILITY DISPLACEMENT
			RARE, THREATENED AND ENDANGERED SPECIES

**GEORGETOWN AREA**  
 ENVIRONMENTAL ASSESSMENT  
 REFINED ON-ALIGNMENT ALTERNATIVE - SHEET 1  
 OCTOBER 2012

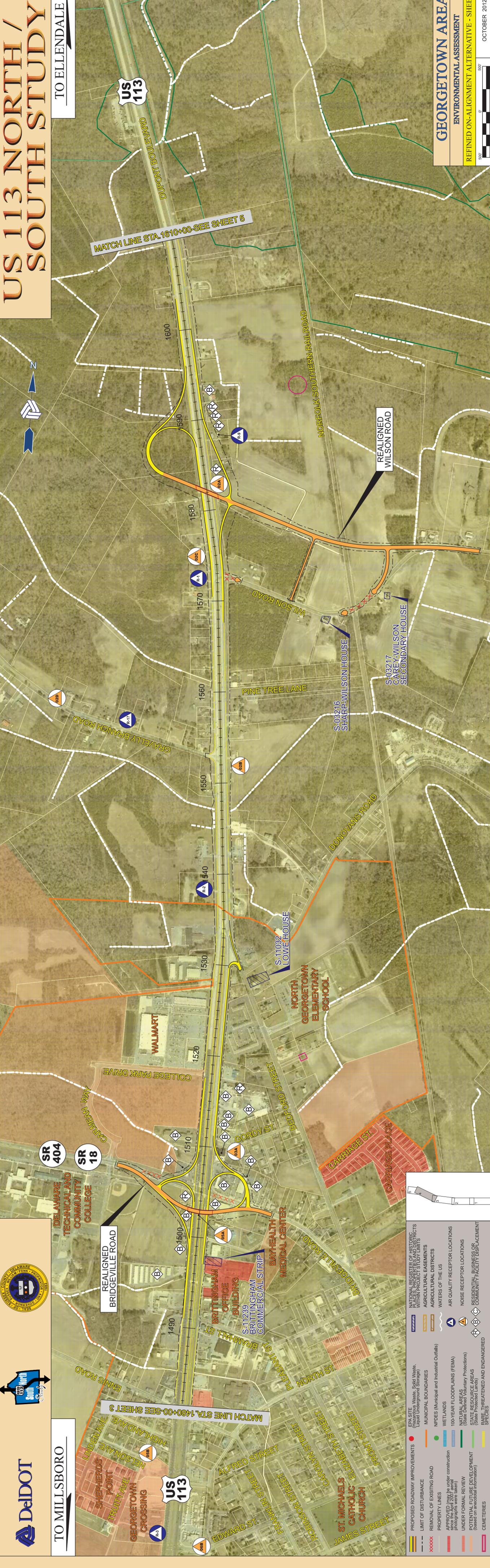






TO MILLSBORO

TO ELLENDALE

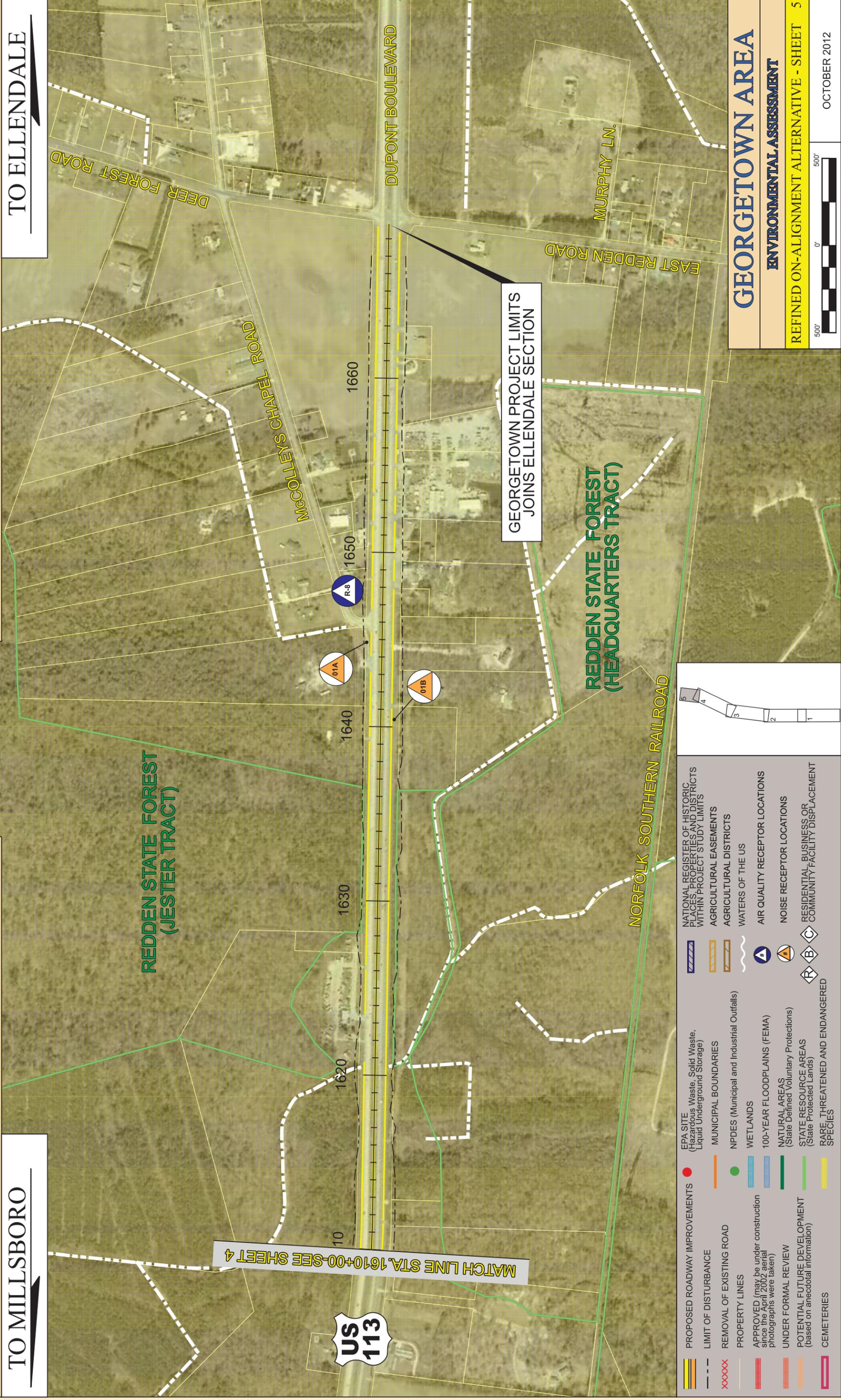


	PROPOSED ROADWAY IMPROVEMENTS		EPA SITE
	LIMIT OF DISTURBANCE		NATIONAL REGISTER OF HISTORIC PLACES, PROPERTIES AND DISTRICTS WITHIN PROJECT STUDY LIMITS
	REMOVAL OF EXISTING ROAD		AGRICULTURAL EASEMENTS
	APPROVED (may be under construction)		WATERS OF THE US
	UNDER FORMAL REVIEW		AIR QUALITY RECEPTOR LOCATIONS
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		NOISE RECEPTOR LOCATIONS
	CEMETERIES		RESIDENTIAL-BUSINESS OR COMMUNITY FACILITY DISPLACEMENT
	PROPERTY LINES		RARE, THREATENED AND ENDANGERED SPECIES
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
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	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
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	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
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	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
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	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
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	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	CEMETERIES		
	PROPERTY LINES		
	APPROVED (may be under construction)		
	UNDER FORMAL REVIEW		
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		
	PROPERTY LINES		
	100-YEAR FLOODPLAINS (FEWA)		
	NATURAL AREAS (State Defined Voluntary Protections)		
	UNDER FORMAL REVIEW		

# US 113 NORTH / SOUTH STUDY

TO MILLSBORO

TO ELLENDALE



	PROPOSED ROADWAY IMPROVEMENTS		EPA SITE (Hazardous Waste, Solid Waste, Liquid Underground Storage)		NATIONAL REGISTER OF HISTORIC PLACES, PROPERTIES AND DISTRICTS WITHIN PROJECT STUDY LIMITS
	LIMIT OF DISTURBANCE		MUNICIPAL BOUNDARIES		AGRICULTURAL EASEMENTS
	REMOVAL OF EXISTING ROAD		NPDES (Municipal and Industrial Outfalls)		AGRICULTURAL DISTRICTS
	PROPERTY LINES		WETLANDS		WATERS OF THE US
	APPROVED (may be under construction since the April 2002 aerial photographs were taken)		100-YEAR FLOODPLAINS (FEMA)		AIR QUALITY RECEPTOR LOCATIONS
	UNDER FORMAL REVIEW		NATURAL AREAS (State Defined Voluntary Protections)		NOISE RECEPTOR LOCATIONS
	POTENTIAL FUTURE DEVELOPMENT (based on anecdotal information)		STATE RESOURCE AREAS (State Protected Lands)		RESIDENTIAL, BUSINESS OR COMMUNITY FACILITY DISPLACEMENT
	CEMETERIES		RARE, THREATENED AND ENDANGERED SPECIES		

**GEORGETOWN AREA**  
**ENVIRONMENTAL ASSESSMENT**  
 REFINED ON-ALIGNMENT ALTERNATIVE - SHEET 5  
 OCTOBER 2012



## APPENDIX B: DELDOT RELOCATION PLAN





STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**

800 BAY ROAD  
P.O. Box 778  
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.  
SECRETARY

**MEMORANDUM**

**TO:** Monroe Hite, III, Project Manager, Project Development

**VIA:** Rosemary Richardson, South District Manager *RR*

**FROM:** V. Wayne Rizzo, Assistant Director, Real Estate Services *WR*

**DATE:** December 9, 2010

**SUBJECT:** US113 North/South Study, Contract Number T200212701  
Georgetown Area

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Attached please find a Relocation Plan for the above state project.

Thank you.

Enclosure



**State Project Number T200212701  
US 113 North/South Study  
Georgetown Area**

**General Area of Project**

This project starts just north of the intersection of US113, DuPont Boulevard, and East Redden Road/Deer Forest Road and continues in a southerly direction to just south of the intersection of US113, DuPont Boulevard, and Rich Road/Avenue of Honor. This Relocation Plan has been prepared for State Project Number T200212701, US 113 North/South Study, Georgetown Area and is to be incorporated into the Environmental Assessment.

**Planning Assumptions**

This Relocation Plan was compiled based upon assumptions from the Work In Progress Plan supplied by the Project Manager, a field inspection conducted by Delaware Department of Transportation, Real Estate Services staff on December 3, 2010, Sussex County assessment records and public information available over the internet. This plan also assumes that no advanced acquisitions requiring relocation assistance will occur on the project prior to the distribution of Semi-Final Right of Way Plans. **No contact was made with any person in occupancy upon any parcel listed below in formulation of this Relocation Plan.**

**Potential Displacement Inventory**

There are thirty-eight (38) parcels that appear to be occupied thus requiring relocation assistance and payments. All appear to be total acquisitions. Based upon the field inspection and county assessment records it appears there would be forty-six (46) separate relocation assignments in addition to an unknown number of separate relocations which be determined after the interview process and are as follows:

- Sixteen (16) 180-Day Homeowner Occupants
- Three (3) 90-Day Occupants (tenants)
- Twenty-one (21) Occupied Businesses
- Three (3) Non-Occupant Businesses (Reestablishment Expense eligibility only)
- Two (2) Move Only
- One (1) Farm Operation
- Unknown number of Move Only for storage units
- Unknown number possible 90-Day Occupants (tenants)

**By Parcel Relocation Type**

1-35-009.00-0039.00: One (1) 180-Day Homeowner Occupant, One (1) Occupied Business

1-35-009.00-0040.00: One (1) 180-Day Homeowner Occupant  
 1-35-009.00-0041.00: One (1) Move only  
 1-35-009.00-0042.00: One (1) 180-Day Homeowner Occupant  
 1-35-009.00-0043.00: One (1) 180-Day Homeowner Occupant  
 1-35-014.00-0061.00: One (1) 180-Day Homeowner Occupant, Three (3) 90-Day Occupants,  
 One (1) Non-Occupied Business  
 1-35-014.00-0058.01: One (1) Occupied Business, One (1) Non-Occupied Business  
 1-35-014.00-0058.00: One (1) Occupied Business, One (1) Non-Occupied Business  
 Unknown number of possible 90-Day Occupants  
 1-35-014.15-0006.00: One (1) Occupied Businesses  
 1-35-014.15-0007.00: One (1) Occupied Businesses  
 1-35-014.15-0008.00: One (1) Occupied Businesses  
 1-35-014.00-0035.01: One (1) Occupied Business  
 1-35-014.00-0036.00: One (1) Occupied Business  
 1-35-014.15-0023.00: One (1) Occupied Business  
 1-35-014.15-0025.00: One (1) Occupied Business  
 1-35-014.15-0026.00: One (1) Occupied Business  
 1-35-014.15-0052.00: One (1) Occupied Business  
 1-35-014.15-0004.00: One (1) 180-Day Homeowner Occupant  
 1-35-014.15-0002.00: One (1) Occupied Business  
 1-35-014.15-0001.00: One (1) Occupied Business  
 1-35-014.00-0038.00: One (1) Occupied Business, Unknown number Move Only  
 1-35-019.11-0001.00: One (1) Occupied Business  
 1-35-019.11-0002.01: One (1) Occupied Business  
 1-35-019.11-0003.00: Four (4) Occupied Businesses  
 1-35-019.00-0011.00: One (1) Occupied Business  
 1-33-002.00-0035.00: One (1) 180-Day Homeowner Occupant  
 1-33-002.00-0004.01: One (1) Occupied Businesses, One (1) Farm Operation  
 1-33-002.00-0023.00: One (1) Occupied Business  
 1-33-002.00-0007.02: One (1) 180-Day Homeowner Occupant  
 1-33-002.00-0007.00: One (1) Move Only  
 1-33-002.00-0007.01: One (1) 180-Day Homeowner Occupant  
 1-33-002.00-0015.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0102.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0152.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0151.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0153.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0154.00: One (1) 180-Day Homeowner Occupant  
 1-33-006.00-0155.00: One (1) 180-Day Homeowner Occupant

### **Available Replacement Sites for Residential Occupants**

The sixteen (16) 180-Day Homeowner Occupants are stick-built dwellings. There is presently a supply of comparable or better replacement housing available for the 180-Day Homeowner Occupants. However, it is anticipated that the cost of providing comparable replacement housing

may require housing of last resort for approximately twenty-five percent (25%) caused by the following:

- ✓ Estimated Housing Supplement and Incidental Expenses would exceed the statutory limit set under Delaware Code Title 29 Chapter 93 §9303(a)(4)

The field investigation revealed that three (3) identified residential tenants resides in single-family dwellings and the possibility of an unknown number reside in a multi-unit building. Research indicated that there is a limited supply if available housing of this type presently for rent/sale in and around the project area. As such, housing of last resort will be utilized to provide for comparable replacement housing if the supply condition remains the same at the time of displacement.

Review of public records indicated that there are several ethnic groups present on the project as 180-Day Homeowner Occupants and 90-Day Occupants that may require the utilization of translators for program information dissemination. Research indicated that there are translators that the Department of Transportation could hire that could fulfill this need.

### **Non-Residential Occupant Issues**

The two (2) unknowns in the project are gas station/convenience stores that will more than likely have more than one displaced person occupying the sites caused by personal property being owned by various product providers. This will be determined when interviews are conducted. However, once known, this should not significantly increase the project costs estimate.

Of the twenty-one (21) occupied businesses in the area, six (6) businesses are not considered small businesses, a chain fast food restaurant, a large car dealership, a cable service center, a chain hotel and two (2) chain gas stations. The remaining fifteen (15) occupied businesses are considered small businesses. Specifically, the types of businesses being conducted are as follows:

- Auto Detailing
- Car Dealerships
- Hotel
- Fast Food Restaurant
- Graphic Design Company
- Insurance Agency
- Real Estate Agency
- Gas Station/Convenience Stores
- Self Storage Facility
- Restaurant
- Auto Repair
- Book Store
- Speedway
- Farm Operation





## APPENDIX C: AGENCY MEETINGS and CORRESPONDENCE





**US 113  
Project Team**

Delaware Department of Transportation  
Sussex County  
Whitman, Requardt and Associates, LLP  
Rummel, Klepper & Kahl, LLP  
Kramer & Associates, Inc.  
Primary Phone: (410) 235-3450 Fax: (410) 235-2695

**Memorandum of Meeting**

**DRAFT**

**Date:** September 28, 2004  
**Date of Meeting:** September 8, 2004  
**Time:** 9:00 a.m.  
**Location:** Dover Room, DelDOT Administration Building  
**Topic:** Resource Agency Alternatives Review Session  
**Attendees:**

<b>Name</b>	<b>Representing</b>
Gwen Davis	DE SHPO
Dan Griffith	DE SHPO
Patrick Carpenter	DelDOT
Nathaniel Delesline	DelDOT
Joy Ford	DelDOT
Terry Fulmer	DelDOT
Mike Hahn	DelDOT
Monroe Hite, III	DelDOT
Jim Butch	EPA
Bill Chadwick	JMA
Doug McVarish	JMA
Bob Kramer	KA
Tim Goodger	NOAA/NMFS
Brian Bollas	RK&K
Ray Harbeson	RK&K
Katry Harris	RK&K
Tom Marando	RK&K
Joe Wutka	RK&K
Jackie Winkler	USACE
Tom Hannan	WR&A
Jeff Riegner	WR&A

### Next Meeting

The next meeting with Agency representatives to discuss the US 113 North/South Study will be at the Quarterly Agency Meeting scheduled for October 14, 2004, at 9:30 a.m. at DelDOT's Administration Building.

### Action Items

- Project Team to send small size copies of plans to the Agency representatives. [*Plan to circulate at Quarterly Agency Meeting on October 14, 2004, and mail to any representatives not in attendance.*]
- Project Team to consider inviting Agency representatives to speak at upcoming working group meetings.
- Project Team to coordinate with FHWA to determine course of action to emend the Logical Termini document.
- Terry Fulmer and Jackie Winkler to reschedule field view of study area.

### Item Distributed

- Updated project schedule (key DelDOT projects)
- Schedule of working group meetings and public workshops in Fall 2004
- Meeting Summary—Archeological Sensitivity Presentation, July 22, 2004
- Meeting Summary—Quarterly Agency Meeting, July 8, 2004

### Discussion

Monroe Hite welcomed the attendees and initiated introductions. He stated that the purpose of the meeting was to review the alternatives developed to date for the US 113 North/South Study. The group will focus on the on-alignment alternatives today, and the off-alignment alternatives will be reviewed at a future meeting. [*The off-alignment alternatives are scheduled to be reviewed at the Quarterly Agency Meeting on October 14, 2004.*]

Mr. Hite reminded the Agency representatives that the Project Team circulated a Logical Termini document in April 2004. He stated that the logical termini may need to be refined and that this will be discussed during today's meeting.

Mr. Hite also reminded the Agency representatives that the Project Team circulated draft Purpose and Need Statements in July 2004. He asked if any representatives would like to comment on those drafts. No comments were made. Mr. Hite stated that the Project Team plans to circulate concurrence letters for the Purpose and Need Statements at the Quarterly Agency Meeting in October 2004.

The attendees then reviewed the alternatives mapping. A detailed discussion followed. The following is a summary of the comments made by the Agency representatives:

*General Comments*

Dan Griffith and Gwen Davis (SHPO) provided the following general comments:

- How does this concept fit in with Corridor Capacity Preservation concept. New construction was not expected.
- Can the improvements be phased?
- Providing access roads will almost guarantee that development along them will occur.
- What happens to properties purchased in fee simple? Which agency will own and/or be responsible for them?
- Has FHWA reviewed the proposed shift in logical termini locations? What is the procedure for this?
- We need to develop an agreement with DelDOT on how to handle historic properties purchased for the potential improvements. Refer to previous agreement developed for SR 1.

Jackie Winker (USACE) provided the following general comments:

- Are these proposed improvements a “plan” or a “project” (regulatory definition)? What is the time frame for potential construction of the improvements.
- The design seems substantial and detailed. This has potential to be a very large project. Surprised.
- We need to compare and consider the cost and impacts of constructing access roads with the cost of purchasing properties.
- We need to reschedule field tour of study area to review mapping accuracy.
- Dualization of US 113 in this area may have changed the hydrology.
- Need to consider new construction on both sides of the existing road to determine if these alternatives are “practicable” (regulatory definition).

Jim Butch (EPA) provided the following general comments:

- Are traffic problems in the study area seasonal only?
- Is it expected that all the “development potential” of the area will be filled in the foreseeable future?

Mr. Goodger (NMFS) provided the following general comments:

- Agencies should recognize that Delaware is one of the most popular retirement destinations nationwide. May be more popular than Florida.

*Comments Specific to Alternatives*

The following comments were offered by Ms. Winkler specific to the **Milford Area** on-alignment alternatives:

- Evaluate alternative to avoid constructing a new crossing of Mullet Run.
- Try to avoid impacts to forested wetlands at intersection of US 113, SR 14, and railroad.
- If only on-alignment alternatives are considered, the project could be evaluated with an Environmental Assessment rather than an Environmental Impact Statement.

There were no comments offered specific to the **Ellendale Area**.

The following comments were offered specific to the **Georgetown Area** on-alignment alternatives:

- Ms. Davis: What is the need for the proposed connector from SR 18/404 to US 113, west of DelTech? This proposed connection is “pretty brutal.” It seems overkill.
- Ms. Winkler: Consider widening or other improvements to local roads as opposed to proposed connector from SR 18/404 to US 113, west of DelTech. This proposed new road may have significant environmental impacts.

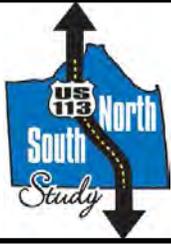
The following comments were offered specific to the **Millsboro-South Area** on-alignment alternatives:

- Ms. Winkler: Try to avoid wetland impacts in the northeast and northwest quadrants of the proposed US 113/SR 54 interchange.
- Mr. Goodger: See suggestions for the US 113/SR 24 interchange drawn on maps.

The attendees briefly reviewed the **Millsboro-South Area** off-alignment alternatives, and the following comments were offered:

- Mr. Griffith/Ms. Davis: Review the west off-alignment alternatives for conflicts with known archeological sites (especially the location of the Colonial Period “Indian Reservation”).
- Ms. Winkler: Is the Project Team trying to address east-west issues at SR 24 in the current study?

Meeting Summary prepared by Katry Harris.



## US 113 Project Team

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## Memorandum of Meeting

**Date:** June 6, 2005  
**Date of Meeting:** April 20, 2005  
**Time:** 9:00 a.m.  
**Location:** Farmington/Felton Room, DelDOT Administration Building  
**Topic:** Agency Review Meeting  
**Attendees:**

<b>Name</b>	<b>Representing</b>
Mark Davis	Delaware Dept. of Agriculture (DDA)
Gwen Davis	Delaware State Historic Preservation Office (SHPO)
Patrick Carpenter	Delaware Dept. of Transportation (DelDOT)
Joy Ford	DelDOT
Terry Fulmer	DelDOT
Mike Hahn	DelDOT
Monroe Hite, III	DelDOT
Sonya LaGrand	DelDOT
Don Plows	DelDOT
Tricia Arndt	Delaware Dept. of Natural Resources and Environmental Control (DNREC) – Coastal Zone Management
Joanne Haughey	DNREC – Water Resources
Jim Butch	Environmental Protection Agency (EPA)
Bob Kleinburd	Federal Highway Administration (FHWA)
Wade Catts	John Milner Associates (JMA)
Andrew Bing	Kramer & Associates (KA)
Ed Thomas	KA
Ann Marie Townshend	Office of State Planning Coordination (OSPC)
Brian Bollas	Rummel, Klepper & Kahl, LLP (RK&K)
Katry Harris	RK&K

<b>Name</b>	<b>Representing</b>
Bill Hellmann	RK&K
Justin Reel	RK&K
Joe Wutka	RK&K
Jackie Winkler	US Army, Corps of Engineers (USACE)
Karl Kratzer	Whitman, Requardt & Associates, LLP (WR&A)
Jeff Riegner	WR&A
Tom Shafer	WR&A

### Next Meeting:

The next **Quarterly Agency Review Meeting** is scheduled for **Thursday, July 14, 2005, at 9:30 a.m. at the DelDOT Administration Building**. The name of the room and confirmation of the agenda (expected to include the US 113 North/South Study) will be sent by Terry Fulmer (DelDOT) prior to the meeting.

### Action Items:

- Project Team to present Working Group and public comments only (not recommendations) regarding the Alternatives Retained for Detailed Study at the next Agency Review Meeting
- Brian Bollas (RK&K) to add tidal wetland data layer, separate streams from ditches (to the greatest extent possible) under Waters of the US and perform impact calculations for all preliminary alternatives and transmit data to Joanne Haughey (DNREC). [*Calculations to be available by Quarterly Agency Review Meeting on July 14, 2005.*]
- Monroe Hite (DelDOT) to submit preliminary assessments of cultural resources in the Milford Area to SHPO for review and discussion.
- Monroe Hite (DelDOT) to forward revised impact matrix for Ellendale Area to the Agencies. [*Revised matrix to be available by Quarterly Agency Review Meeting on July 14, 2005.*]
- Once alternative retained for detailed study have been identified, Project Team to document alignment shift suggestions made by Agencies and clarify how the suggestions were addressed at subsequent meetings with the Agencies.
- After Alternatives Retained decision (Summer 2005), Terry Fulmer and Monroe Hite to coordinate with Agencies to schedule a field view.
- Monroe Hite (DelDOT) to copy Gwen Davis (SHPO) on correspondence from Preservation Delaware regarding the Pepper Farm property and Georgetown Area West Off-Alignment Alternatives.
- Mark Davis (DDA) to provide Monroe Hite (DelDOT) with a copy of the State Forest Master Plan for use in the Section 4(f) evaluation for the study. [*Katry Harris to follow-up with Mark Davis.*]
- Monroe Hite (DelDOT) to forward illustrations and impact matrices for the new Millsboro-South East Off-Alignment Alternatives (to avoid Mountaire/Indian River Archeological Complex) to Agencies.
- Bob Kleinburd (FHWA) to look into FHWA's handling of archeological sites under Section 4(f). [*Monroe Hite to follow-up with Bob Kleinburd*]
- Monroe Hite to (DelDOT) to prepare a draft Notice of Intent (to prepare an Environmental Impact Statement) for the Millsboro-South Area and submit to Bob Kleinburd (FHWA) for publication in the *Federal Register*. [*Sent to FHWA on May 13, 2005.*]

## Items Distributed:

- Summary of Quarterly Agency Review Meeting on January 13, 2005.
- Schedule of Public Workshops, Spring 2005.
- Copy of Presentation, Agency Review Meeting, April 20, 2005.
- Copy of Alternatives Impact Comparison Matrices for Milford Area, Ellendale Area, Georgetown Area, and Millsboro-South Area.
- Copy of Impact Calculation Methodology: Cultural Resources

## Discussion:

Joy Ford and Monroe Hite welcomed the attendees, who then introduced themselves. Mr. Hite reminded the attendees that the last meeting was on January 13, 2005, and that he gave a very brief update at the Quarterly Agency Review Meeting on April 14, 2005, but that this meeting would address the current consideration of preliminary alternatives and the Project Team's recommendations for Alternatives Retained for Detailed Study. He reviewed the schedule of Working Group Meetings and Public Workshops for Spring 2005:

- 4/21/05 - Georgetown Area Working Group Meeting #7
- 4/25/05 – Milford Area Working Group Meeting #7
- 4/26/05 – Ellendale Area Working Group Meeting # 5 – Expect Working Group to make recommendations for Alternatives Retained
- 4/27/05 – Millsboro-South Area Working Group Meeting #8 – Expect Working Group to make recommendations for Alternatives Retained
- 5/16/05 – Milford Area Working Group Meeting #8 – Expect Working Group to make recommendations for Alternatives Retained
- 5/17/05 – Ellendale Area **Public Workshop** – Present Working Group recommendations and invite public comment on for Alternatives Retained
- 5/18/05 – Georgetown Area Working Group Meeting #8 – Expect Working Group to make recommendations for Alternatives Retained
- 5/23/05 – Millsboro-South Area **Public Workshop** in Millsboro – Present Working Group recommendations and invite public comment on for Alternatives Retained
- 5/24/05 – Millsboro-South Area **Public Workshop** in Selbyville - Present Working Group recommendations and invite public comment on for Alternatives Retained
- 6/6/05 – Milford Area **Public Workshop** - Present Working Group recommendations and invite public comment on for Alternatives Retained
- 6/13/05 – Georgetown Area **Public Workshop** - Present Working Group recommendations and invite public comment on for Alternatives Retained

Bob Kleinburd (FHWA) stated that he would prefer to not hear the Working Groups' recommendations for Alternatives Retained. He indicated that he is interested in the comments of the Working Groups, as he is also interested in the comments of the public at-large. However, he stated that the Working Groups' recommendation will not have bearing on FHWA's decision regarding Alternatives Retained.

Jackie Winkler (USACE) added that she hopes the public does not think they have been empowered to make the Alternatives Retained decision. Gwen Davis (SHPO) agreed, but acknowledged that DelDOT and the Project Team have tried to reinforce with the Working Groups that their role is only advisory and

not decision-making. She noted that this is, in the SHPO's view, an inherent flaw in the Working Group system. Mr. Hite reiterated that all agency representatives are welcome to attend the Working Group Meetings and the Public Workshops and to make presentations if they would like. He stated that the Project Team will present the comments only (not recommendations) of the Working Groups and the public to the agencies at the next meeting (scheduled for July 14, 2005).

Mr. Hite stated that the goal of the remainder of the meeting is to review the preliminary alternatives for each area (North to South, and for each area, review on-alignment, east off-alignment and west off-alignment alternatives) and their potential impacts and to discuss the agencies' views on whether the alternatives should be retained for detailed study at this time.

### *Milford Area Preliminary Alternatives*

#### **On-Alignment Alternative A**

Jeff Riegner (WR&A) presented the On-Alignment Alternative A in the Milford Area. He explained that previous Options 1 and 2 have been combined because they were very similar. He added that Option 3 is the "Third Lane, No Controlled Access" option. Ms. Winkler asked if the Project Team expects to revise its Purpose and Need Statement to clarify and understand whether Option 3 meet the project purpose and need. Mr. Riegner indicated that revisions may be needed. To date Working Group members and the public have expressed that they see this option as a "band-aid" and not a long-term solution. However, they have also expressed concerns with the On-Alignment Alternative A, including emergency access, dividing their community, and potential economic impacts to businesses on US 113.

Joanne Haughey (DNREC) asked if the tidal wetlands regulated by Delaware's Subaqueous Lands permit process had been calculated in the comparison matrix. Brian Bollas and Justin Reel (RK&K) confirmed 2002 Land Use data was utilized for the wetlands calculations. Ms. Haughey indicated that the tidal wetlands impacts are necessary for her to evaluate the preliminary alternatives. Mr. Bollas indicated that he would add that data layer and perform those calculations for her.

Ms. Haughey also requested that streams (regulated by Subaqueous Lands) be separated from ditches under the Waters of the US impact calculations. Brian Bollas indicated that the Project Team would attempt to provide this information to the extent possible based on available data.

Ms. Davis noted an error in the Cultural Resources impact calculation methodology: She suggested deleting the final paragraph (beginning, "Addition CRS points...").

Wade Catts provided additional cultural resources mapping to Ms. Davis to clarify the potential impact locations throughout the US 113 corridor. He highlighted that the Milford Area On-Alignment Alternatives may impact the National Register-listed Roosa Farm, a large non-historic cemetery, and the National Register-eligible Fitzgerald's Auto Salvage and other resources at Fitzgerald's Corner.

Ms. Davis confirmed that the SHPO transmitted to DelDOT the CRS numbers for all of the newly-identified resources in the US 113 study area. Mr. Catts indicated that the CRS numbers would be assigned to the individual resources and forms would be prepared for and submitted to the SHPO in a timely fashion. He stated that the next time the Agencies see the comparison matrix, the "newly surveyed properties" line items would be deleted as all resources would fall under the CRS categories.

## **East Off-Alignment Alternatives**

Mr. Riegner explained that all the East Off-Alignment Alternatives include adding a third lane in each direction on SR 1 from the current SR 1/US 113 split (north of Milford) to the beginning of each alternative. This improvement is an integral part of this action and is part of each alternative. Mr. Riegner added that Working Group members and the public have commented that the East Off-Alignment Alternatives are desirable because they work with the city's development plans.

Mr. Reel indicated that these alternatives pass through the Cedar Creek watershed, and that the options using Alternative D have the lowest wetlands but the highest forest impacts. Mr. Catts stated that some of these alternatives may impact the Cedar Creek Mill Farm property, a property which JMA has documented and has recommended to DelDOT as eligible for the National Register of Historic Places. JMA's preliminary assessment and DelDOT's comments on that assessment will be forwarded to the SHPO for review and discussion.

Mr. Hite stated that, at this time, the Project Team recommends retaining Alternatives C, D, E, F, 1, 2, and 3. Ms. Davis asked why Alternative B would be dropped. Mr. Riegner explained that public concern regarding splitting the community of Lincoln and Milford, high wetland impacts, and high forest impacts indicated it should be dropped. He noted that the retained alternatives still provide opportunities to avoid and minimize impacts on historic resources. Ms. Davis added that other Cultural Resources impacts (e.g. high probability pre-historic acreage) should be added to the rationale to drop Alternative B.

Ms. Haughey asked why all the Cultural Resources detail was included in the comparison of alternatives. Katty Harris (RK&K) stated that while the consideration of wetlands, subaqueous lands, and other natural resources are given their due consideration in the comparison, historic properties are afforded additional consideration and protection under Section 4(f) of the Department of Transportation Act. Direct impacts to historic properties along with publicly-owned parks, recreation areas, and wildlife and waterfowl refuges can be fatal flaws to transportation improvement options; therefore, they are given early and thorough consideration throughout the process.

## **West Off-Alignment Alternatives**

Joe Wutka (RK&K) introduced the West Off-Alignment Alternatives by explaining that the chain of ponds through the area defined narrow windows for the alternatives. He noted that members of the Working Group and the public have indicated that the length of the alternatives, which is generally greater than those of the East Off-Alignment Alternatives, is equated with cost in their minds. Therefore, these alternatives are undesirable because they are more expensive and because they may promote development west of Milford, which is not consistent with the city's comprehensive plan.

Mr. Reel added that all of these alternatives have higher wetlands and forest impacts, except Alternative J, which has the least overall natural resources impacts.

Ms. Winkler asked if her suggestions to minimize the impacts of these alternatives had been incorporated in the current depiction of the alternatives. Mr. Wutka stated that no changes have been made to the illustration of these alternatives, but that her suggestions had been incorporated in other alternatives, which he would note later. Ms. Winkler requested that, from this point on, the Project Team document alignment shift suggestions made by the Agencies and clarify how the suggestions were addressed at subsequent meetings. Mr. Riegner and Mr. Wutka explained that her suggestions would be incorporated if

the alternatives were retained for detailed study and explanations would be provided as requested during the detailed study phase.

Mr. Hahn asked if Alternative J meets the Purpose and Need of the project. Mr. Hite stated that the Project Team is still analyzing to make that determination.

Mr. Catts highlighted that Alternative J has the potential to impact some 30 potentially historic properties. He added that Alternative 4 would impact one National Register-listed property and that Alternatives 4 and 6 would bound the National Register-listed property, Abbott's Mill. All of the alternatives would return to the existing US 113 alignment in the vicinity of Fitzgerald's Corner and have the potential to impact National Register-eligible properties there.

Ms. Davis stated that the property owners of the National Register-listed Roosa Farm have indicated to the SHPO that they are concerned about the potential impacts of Alternative J on their property. She suggested that even though the property is not within 600' of the centerline of Alternative J, it should be added to the impact calculation.

### *Ellendale Area Alternatives*

Mr. Wutka introduced the alternatives stating that all of the Ellendale Area alternatives are On-Alignment. He reminded the attendees that Option 3 is the "third lane, uncontrolled access" alternative. He explained that two West Bypass Options around the US 113/SR 16 intersection have been developed at the request of the public and the Working Group. These West Bypass Options, presented here to the Agencies, will be presented to the Working Group on April 26, 2005. The impacts of these alternatives have not yet been calculated, but the Project Team will forward them to the Agencies when prepared.

Ms. Winkler was surprised that DelDOT was willing to develop any alternative proposed by members of the public. Mark Davis (DDA) confirmed, from his experience attending the Working Group meetings, that DelDOT has been very open and responsive with the public throughout this study. He added that the DDA does not support a West Bypass of the intersection because it pushes development further to the west. He noted that the Working Group as a whole did not seem to support the West Bypass idea, but it was of interest to some individuals.

Ann Marie Townshend (OSPC) reminded the attendees that the addendum to the recent Ellendale Comprehensive Plan requires some eleven conditions to be met before development can occur west of the current US 113: administrative conditions, roads, sewer, and agricultural land preservation will all have to be demonstrated.

Ms. Davis noted that this issue is very similar to the discussions had regarding SR 1 in the vicinity of Dover. She stated that farm complexes and agricultural land (as contributing setting components) are also cultural resources concerns. Mr. Wutka stated that the current alternatives avoid direct impacts to the two National Register-listed properties in the area: Teddy's Tavern and the Picnic Shelter.

Ms. Winkler and Ms. Haughey agreed that they did not support the West Bypass Options.

### **On-Alignment Alternative A**

Mr. Riegner introduced the On-Alignment Alternative A, reminding the attendees that Option 3 is the “third lane, uncontrolled access” alternative in the Georgetown Area.

Jim Butch suggested that the Agencies review the alternatives in the field, once the Alternatives Retained have been selected. Mr. Hite agreed and clarified the study schedule: the Alternatives Retained decisions are planned for Summer 2005 and the Draft Environmental Documents/Preferred Alternatives are planned for Summer 2006. Mr. Riegner added that the goal of DelDOT is to identify preferred alternatives so that corridors can be preserved. Rapid construction is not a priority at this time.

Ms. Winkler asked if the Project Team was currently assuming that all the alternatives meet project purpose and need. Mr. Rieger indicated that the traffic analysis is on-going, and that some alternatives may be found to not meet the traffic needs of the project. Mr. Reel stated that Option 3 have very minimal natural resources impacts. Ms. Winkler added that Option 3 looks good across all resources (including cultural resources), such that the decision to retain/drop lies primarily with whether it meets project purpose and need.

### **East Off-Alignment Alternatives**

Mr. Wutka introduced the East Off-Alignment Alternatives explaining that the location of the Sussex County Airport drove the locations of those alternatives. He stated that members of the Working Group and the public have indicated that neither of these alternatives is desirable because they are not perceived to address the east-west (beach traffic) issue in the community. In addition, some members of the public have stated that Alternative B is located at the outer extent of planned development and that Alternative C constrains development too much.

Mr. Reel stated that both alternatives have similar and very high wetland impacts. He added that Alternative B also has much higher forest and State Resource Area impacts. Mr. Riegner stated that the potential cultural resources impacts are also high for both alternatives.

Mr. Butch suggested that both East Off-Alignment Alternatives be dropped from further consideration.

### **West Off-Alignment Alternatives**

Mr. Riegner introduced the West Off-Alignment Alternatives explaining that the location of DelTech and known aquatic resources defined their locations. He stated that Alternative 5 has been added since the last agency meeting as a variant of Alternative 2 that minimizes direct residential impacts. He stated that preliminary traffic analysis indicates that these alternatives address the SB US 113-EB Truck Route 9 and the EB SR 18/404 to SB US 113 movements (key east-west traffic issues for the community) better than the East Off-Alignment Alternatives. To date, the Project Team has not compared the West Off-Alignment Alternatives with the On-Alignment Alternatives.

Ms. Winkler indicated a potential shorter alternative, leaving US 113 south of Alternative E. Mr. Riegner noted that such an alternative would impact Wal-Mart, its adjacent existing commercial development, and DelTech such that this shorter alternative does not appear feasible.

Mr. Reel stated that there are notable differences in the wetland impacts for these alternatives: Alternative D would impact some 100 acres while Alternatives E and F would impact some 60 acres. He added that forest impacts are lower for the West Off-Alignment Alternatives than for the East. He highlighted that Alternative D would also have a high impact on State Resource Areas.

Ms. Winkler noted that Alternatives E and F did not seem better than the East Off-Alignment Alternatives in terms of natural resource impacts. Therefore, she stated that a purpose and need justification would be necessary to drop the East Alternatives. Mr. Butch recognized the importance of addressing these key east-west traffic issues – if not through this project, then through some future project.

Mr. Catts highlighted that the West Alternatives along Parker Road (Alternatives 3 and 4) would impact the National Register-listed Pepper Farm. He added that Preservation Delaware owns this property and has sent a letter expressing concern about the potential effects of these alternatives on this property. Ms. Davis requested that the SHPO be copied on this correspondence. She also noted that southwest of Georgetown is generally a low-probability area for prehistoric archeological resources.

Mr. Davis stated that DDA believes Alternatives E and F are better than Alternative D and that no use of Alternative 4 cannot be supported by DDA. Mr. Davis asked if the State Forest in this location is considered a Section 4(f) property. Ms. Harris stated that it depends on the actual uses in the area and the Master Plan for that location. She requested that Mr. Davis provide a copy of the State Forest Master Plan to the Project Team.

#### *Millsboro-South Area Alternatives*

Mr. Riegner and Mr. Wutka explained that all of the impacts reported in the comparison matrices reviewed so far included all potential impacts from logical terminus to logical terminus. However, because of the nature of the alternatives in the Millsboro-South Area, the comparison matrix only reports the impacts of the off-alignment segments alone, without any associated on-alignment improvements.

#### **On-Alignment Alternative A**

Mr. Wutka introduced the On-Alignment Alternative A stating that Options 1 and 2 differ in the spacing of access points and that Option 3 is the “third lane, uncontrolled access” alternative. He noted that the impacts of the on-alignment alternatives are reported from logical terminus to logical terminus.

Mr. Reel stated that the natural resource impacts of the On-Alignment Options are generally similar, except for the impacts on Waters of the US. Mr. Wutka confirmed that drainage ditches in the existing right-of-way made Option 2 much more impactful than Option 1.

Mr. Catts added that the cultural resources impacts of the options are also comparable. However, On-Alignment has many more impacts than do the various Off-Alignment Alternatives.

Mr. Wutka noted that members of the Working Group and especially the public have voiced strong opposition to the On-Alignment Alternatives: they believe their community will be adversely impacted (“the town will be cut in half”) and that economic impacts to existing businesses on US 113 will be insurmountable.

Ms. Davis inquired about the status of the economic impact study. Mr. Riegner reported that the study was underway such that we expect surveys to be sent to businesses in the next two months and the analysis likely will be available in Fall 2005.

Ms. Winkler suggested that where preliminary alternatives are close in their impacts on aquatic resources and it could influence the retain/drop decision for those alternatives, she would be available to do a field view or a spot-Jurisdiction Determination to clarify the impact of those alternatives. Mr. Riegner thanked her for her suggestion and added that the Project Team is committed to retaining at least one On-Alignment Alternative in each area of the study at this time.

### **East Off-Alignment Alternatives**

Mr. Wutka explained that the Project Team is currently working to add three additional East Off-Alignment Alternatives to avoid the Mountaire Plant/Indian River Archeological Complex property. Avoidance of the property is important because the area is currently used as the Plant's spray irrigation (chicken processing waste management) fields, there is an opportunity to separate trucks accessing the Plant from beach-related traffic, and it is desirable to avoid the National Register-listed archeological complex. Ms. Davis noted that even if the known loci of the archeological complex are avoided, other as yet-unknown loci may be impacted by alternatives in this area. Ms. Harris asked Ms. Davis if this archeological complex would rise to the level of "preserve in place" and therefore should be considered a Section 4(f) resource. Ms. Davis said she thought that any National Register-listed site that retains integrity was a Section 4(f) resource. Mr. Kleinburd stated that he would look into FHWA's handling of archeological sites under Section 4(f).

Mr. Wutka added that since these alternatives are still in development mapping impact comparisons are not currently available. They will be forwarded to the agencies when available.

Mr. Catts suggested that consultation with Nanticoke regarding the crossing of the Indian River could be helpful. Mr. Hite agreed and indicated that the cost/impacts of crossing the Indian River in this vicinity are potential issues for the Project Team to address.

Mr. Hite explained that the members of the Working Group and the public have expressed support for Alternative B with either Alternative 2 or 3, because it addresses a key east-west traffic movement: SB US 113 to EB SR 24. Because of such strong support, all of the West Off-Alignment Alternatives will also include a spur to SR 24. The public has also voiced preference for a connection from SB US 113 to EB SR 26.

Mr. Reel reported that, as expected, the natural resources impacts of the East Off-Alignment Alternatives are high. Ms. Winkler commented that the quality of these wetlands may be very high – in her opinion, impacts here are more of a concern than impacts to ditches along an existing roadway.

Ms. Haughey asked how bad the traffic is in Millsboro. Mr. Riegner stated that Millsboro is one of the only areas in the study that urban dwellers would consider "congested" under current conditions. During the summer, traffic trying to turn left from SB US 113 to EB SR 24 will back up US 113 for miles. Ms. Harris added that the project purpose and need is based, not only on traffic conditions today, but also traffic conditions in the future given the commitment to additional residential development in the area.

## West Off-Alignment Alternatives

Mr. Hite reported that members of the Working Group and public have voiced no support for the West Off-Alignment Alternatives that bypass Frankford and Dagsboro. There has been some support for a bypass of Selbyville. Mr. Riegner explained that the Project Team is now using detailed information about the current US 113 in Maryland, such that the Selbyville bypasses tie into the “real” road. He added that the Project Team found any bypass of the existing US 113 southwest of Frankford was not viable because of the Cypress Swamp (known locally as “Burnt Swamp” because there is an active peat fire in the swamp).

Mr. Catts noted the location of the 18<sup>th</sup> century Native American Reservation west of Millsboro. The approximately 1000 acre tract could be impacted by several of the West Off-Alignment Alternatives. He also indicated that St. George’s Chapel in Dagsboro could be impacted by Alternative C9.

### *Wrap-up and Next Steps*

Mr. Hite moved to summarize the next steps for the Project Team:

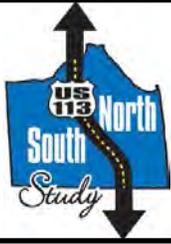
- April – May 2005: Working Groups to develop their comments regarding Alternatives Retained.
- May – June 2005: Agency and Working Group to comment regarding Alternatives Retained presented to the public at five Public Workshops.
- July 14, 2005: Project Team to present Working Group and public comments regarding Alternatives Retained and DelDOT’s recommendations for Alternatives Retained to the Agencies for concurrence.

Mr. Kleinburd asked if DelDOT was considering a Notice of Intent (to prepare an Environmental Impact Statement) for the Millsboro-South Area. Ms. Harris noted that the Millsboro-South Area may be best handled as several smaller projects. Mr. Kleinburd suggested that a Notice of Intent could be prepared for the whole area, then smaller projects could spin off later.

Ms. Davis stated that the alternatives for the Ellendale Area presented today are less “Corridor Capacity Preservation” than had been presented previously (i.e., the “West Bypass” options). Therefore, to her the US 113 North/South Study is still one project that may have Secondary and Cumulative Effects on cultural and other resources.

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Meeting Summary prepared by Katry Harris. Please forward any comments or corrections to her: she can be reached by phone at (410) 462-9317, by fax at (410) 225-3863, and by e-mail at [kharris@rkkengineers.com](mailto:kharris@rkkengineers.com).



## US 113 Project Team

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## Memorandum of Meeting

**Date:** October 18, 2005  
**Date of Meeting:** September 9, 2005  
**Time:** 9:30 a.m.  
**Location:** Dover Room, DelDOT Administration Building  
**Topic:** Agency Review Meeting

**Attendees:**

Name	Representing
Mark Davis	DDA
Austin Short	DDA – Forest Service
Gwen Davis	DE SHPO
Tricia Arndt	DNREC/CZM
Joanne Haughey	DNREC/WSLS
Jacqueline Meyer	DNREC/WSLS
Jim Butch	EPA
Kevin Magerr	EPA
Ann Marie Townshend	OSPC
Bob Zepp	USFWS
Terry Fulmer	DelDOT
Mike Hahn	DelDOT
Monroe Hite, III	DelDOT
Sonya LaGrand	DelDOT
Wade Catts	JMA
Bob Kramer	KA
Katry Harris	RK&K
Joe Wutka	RK&K
Karl Kratzer	WR&A
Jeff Riegner	WR&A

### Next Meeting

The next Agency Review Meeting will be the **Quarterly Agency Coordination Meeting** scheduled for **Thursday, October 13, 2005, at 9:30 a.m.**, at the **DelDOT Administration Building**. Information

regarding the specific room and agenda for the meeting will be provided by Terry Fulmer in advance of the meeting.

## Action Items

- Monroe Hite and Joanne Haughey to meet to discuss in detail the potential impacts to subaqueous lands and their consideration in the Alternatives Retained for Detailed Study. [*Meeting occurred on October 4, 2005.*]
- Project Team (Wade Catts and Jeff Riegner) to coordinate to prepare detailed information comparing the bypass and on-alignment alternatives south of Millsboro and provide to Gwen Davis. [*Detailed information provided to Ms. Davis on September 27, 2005.*]
- Project Team (Jeff Riegner and Karl Kratzer) to update Alternatives Retained for Detailed Study reports for the Milford Area and the Georgetown-South Area based on today's discussion and distribute to Agencies. [*Revised reports distributed to the Agencies on October 13, 2005.*]
- Project Team (Joe Wutka) to prepare Alternatives Retained for Detailed Study report for the Ellendale Area based on today's discussion and distribute to Agencies.

## Items Distributed

- Copy of Presentation
- Detailed Alternatives Comparison Matrices
- Copy of USACE Cooperating Agency Letter (dated July 14, 2005) with Concurrence Signature
- Copy of Summary of US 113 North/South Study Discussions from Quarterly Agency Coordination Meeting on July 14, 2005

## Discussion

Monroe Hite welcomed the attendees and invited them to introduce themselves. Mr. Hite stated that the purpose of the meeting is to receive Agency comments on and, hopefully, to achieve Agency concurrence with the Project Team's recommendations for **Alternatives Retained for Detailed Study (ARDS)**. He also reported that Jackie Winkler (USACE) is unable to attend today's meeting, but will provide comments regarding the recommended ARDS separately.

Jeff Riegner explained that in order to review the Project Team's recommendations for ARDS today, we would proceed from north to south, covering the east bypass, west bypass, and on-alignment alternatives for each study area. The following summary of the discussion highlights the Project Team recommendations for ARDS, Agency concurrence with those recommendations if expressed, and Agency comments provided.

Gwen Davis (SHPO) noted that all of her comments, on behalf of her agency, are provided today for consultation purposes only and do not represent formal concurrence with DelDOT's proposed ARDS.

### *Milford Area*

Karl Kratzer stated that, in all areas of the study, the Project Team recommends retaining the No-Build, at least one On-Alignment, at least one East Bypass, and at least one West Bypass Alternative. Mr. Riegner explained that impacts to particular resources were used to justify dropping alternatives only when there was a big discrepancy in impacts. Joe Wutka added that the retain/drop recommendations are typically based on a balance of the various resources of concern. As a result many of the alternatives recommended to be retained are "in the middle" with regard to their potential impacts on resources.

The Project Team recommended the following ARDS for the Milford Area: No-Build, On-Alignment Alternative A (Option 1/2), East Bypass Alternatives D2 and E2, and West Bypass Alternatives GN6 and HKN6.

The Agencies provided a number of comments regarding the West Bypass Alternatives. Mark Davis (DDA) expressed concern regarding all of the West Bypass Alternatives because of the potential impacts to lands in agricultural preservation programs and because of the potential to expand Milford's growth to the west. Ann Marie Townshend (OSPC) agreed with Mr. Davis, although she noted that growth is more likely to occur in locations where access to the new roadway is provided. As a result of this discussion, the Agencies proposed that West Bypass Alternative HKN6 be dropped from further study.

On the other hand, Gwen Davis (DE SHPO), Joanne Haughey (DNREC) and Tricia Arndt (DNREC) identified that West Bypass Alternative J seems to have relatively low impacts to cultural and natural resources. However, this alternative would require additional spans over Haven Lake. As a result of this discussion, Jim Butch (EPA) and Kevin Magerr (EPA) suggested retaining a modified Alternative J that would be extended on a tangent to the south and utilize Alternative 6.

**As a result of the comments of the Agencies, the Project Team has revised its recommendations for ARDS for the Milford Area to include:**

- **No-Build Alternative**
- **On-Alternative A (Option 1/2)**
- **East Bypass Alternative D2**
- **East Bypass Alternative E2**
- **West Bypass Alternative GN6**
- **West Bypass Alternative J6**

*Ellendale*

Mr. Wutka explained that the Project Team is preparing an ARDS report for the Ellendale Area but that it is not yet ready for distribution to the Agencies. He reminded the Agencies that at the Quarterly Agency Coordination Meeting on July 14, 2005, the Agencies expressed concern regarding the two proposed West Bypass Alternatives at the US 113/SR 16 intersection: the alternatives would unnecessarily impact wetlands and encourage growth west of the existing US 113.

**As a result of those discussions, the Project Team recommends the following ARDS for the Ellendale Area:**

- **No-Build Alternative**
- **On-Alignment Alternative A (Option 1)**

Ms. Townshend asked if this recommendation has been presented to the Town yet. Mr. Hite replied that it will be presented during the Ellendale Area Working Group meeting on October 24, 2005. Mr. Hite added that DelDOT expects to evaluate and document the potential environmental impacts of the Ellendale Area improvements in a Categorical Exclusion. He reminded the Agencies that Bob Kleinburd concurred with this level of documentation at the Quarterly Agency Coordination Meeting on July 14, 2005 (see meeting summary page 5).

## *Georgetown Area*

Mr. Riegner reminded the Agencies of the revised Purpose & Need Statement prepared by the Project Team which indicates that addressing east-west traffic movement issues is an important need in the Georgetown Area of the US 113 Study.

### **The Project Team recommends the following ARDS for the Georgetown Area:**

- **No-Build Alternative**
- **On-Alignment Alternative A (Option 1)**
- **On-Alignment Alternative A (Option 2)**
- **East Bypass Alternative B**
- **West Bypass Alternative E2**
- **West Bypass Alternative E3**
- **West Bypass Alternative E5**
- **West Bypass Alternative F2**
- **West Bypass Alternative F3**

Mr. Davis stated that the DDA does not like Alternative F because of its potential impacts to forests. Mr. Kratzer explained that comparing Alternatives E and F, one perceives a trade-off situation: Alternative E has potentially high cultural resources impacts with low forest impacts while Alternative F has potentially low cultural resources impacts with high forest impacts. Ms. Townshend added that Alternative F may open the wetland area between SR 404/18 and US 9 to development pressures, unless USACE permitting is a sufficient deterrent.

Ms. Davis stated that, because of its potentially low cultural resources impacts, she would prefer that Alternative F be retained for detailed study. She added that Segment 3 could potentially visually affect the National Register listed Pepper Farm.

## *Millsboro*

The Project Team recommended the following ARDS for the Millsboro-South Area: the No-Build Alternative; On-Alignment Alternative A (Option 4); East Bypass Alternatives B4-2, B4-3, B5-2, and B5-3; and West Bypass Alternatives D8 (with an SR 24 connector), D9 (with an SR 24 connector) and I-6.

Mr. Riegner reminded the Agencies that the Project Team has heard much opposition to the on-alignment alternatives through Millsboro from the business community and public in general. The opposition is based on the direct impacts to homes and businesses located on US 113, the perceived economic impacts to businesses because of the limited access design, and the potential for the roadway to divide the town. As a result of the input from the public, the Project Team has developed a new On-Alignment Alternative: **Option 4**, a hybrid of previous Option 1/2 and Option 3. In this option, express lanes would be constructed in the median through Millsboro, with the lanes elevated over the intersections with SR 24 and Delaware Avenue. The express lanes would end in the vicinity of Sussex Shopping Center, just north of Suburban Propane. From this point south to the Delaware-Maryland State Line at Selbyville, the option would be the same as Option 1/2. The Project Team has not yet prepared plans illustrating this option or developed a comparison of the potential impacts of this alternative. However, based on its concept, the Project Team expects the impacts of Option 4 would be similar to Option 3 in Millsboro and the same as Option 1/2 from Millsboro to the state line. Early discussions with town representatives and

business community representatives indicate that this is the only “palatable” on-alignment alternative in this area.

In response to a question from Ms. Davis, Mr. Riegner indicated that the express lanes would be elevated approximately 25 to 30 feet over the existing intersections in Millsboro. Ms. Davis stated that such structures could potentially visual affect historic properties if they are found in this area. In response to an additional question from Ms. Davis, Mr. Riegner clarified that Option 4 would provide eight lanes of capacity through Millsboro, double the present four lanes. Therefore, the Project Team expects that the additional capacity will also generate additional noise, but those analyses will be undertaken in the detailed study phase after the ARDS are selected. Ms. Davis added that the potential for the roadway to divide the town is also a potential issue for historic properties, particularly if a historic district is located here. Detailed survey and evaluation of properties in this area will indicate whether this is a real concern.

Mr. Davis added that while the elevated express lanes of Option 4 could add a visual barrier to the town the actual accessibility and community cohesion issues are the same as with the other on-alignment options.

In response to a question from Mr. Butch, Bob Kramer explained that the business community is afraid they will need to relocate out of town (off US 113) because the new population (developing west of US 113) won't be able to get into town to do business. The result would be business sprawl. Ms. Davis expressed skepticism that any bypass alternative – west or east – would prevent business sprawl. Mr. Riegner added that the Project Team is undertaking a analysis of these potential economic impacts and plans to present preliminary results at the Millsboro-South Area Working Group meeting scheduled for November 16, 2005.

Mr. Riegner described that the **east bypass alternatives** share one location to cross the Indian River. This location is defined and restricted by the Mountaire (chicken) plant, National Register listed archeological district, and development of Millsboro to the west and Nature Conservancy property and Indian River Power Plant to the east.

Austin Short noted that segments 1, 2, and 3, located south of Indian River, may affect the Piney Neck spray irrigation area, which Ms. Townshend explained was the sewage disposal facility for Frankford and Dagsboro. Mr. Riegner explained that the Project Team proposed dropping segment 1 because of its high wetland impacts, double the other segments. Ms. Davis countered that segment 1 has fewer potential cultural resources impacts, and therefore she suggested that it be retained for detailed study. Mr. Butch noted that segment 1 could be shifted to avoid or minimize the wetland impacts during the detailed study phase.

Mr. Riegner explained that the Millsboro-South Working Group nearly recommended that all the **west bypass alternatives** be dropped from detailed study. However, the Project Team noted to the Working Group members that the potential impacts to environmental resources favor the west over the east bypass alternatives. The Working Group ultimately agreed to retain Alternatives D8 and D9 for detailed study, and the Project Team concurred. Ms. Davis agreed, noting that the potential cultural resources impacts of these two alternatives are far less than the other alternatives. Wade Catts clarified that segments 4, 5, 8 and 9 may impact an 18<sup>th</sup> century Native American reservation, but whether any features or artifacts illustrating that past are extant is unknown at this time.

Ms. Townshend stated that segments 4 and 5 pass through the proposed Dukes farm development which is currently going through the PLUS process. She expressed concern that roadway impacts could jeopardize the developer's plan to donate a 2-3 acre site for a Fire Station and a 15-acre site for a public

park. Mr. Riegner explained that the Project Team has been coordinating with the developer, Gemcraft, and we have been assured that we can work out an acceptable plan for all.

Mr. Davis noted that he prefers the east bypasses to the west bypasses because it puts the road nearer to the development of Millsboro, but he added that if a Rare, Threatened or Endangered (RTE) species is located on the east bypass crossing location, the Project Team lacks another option. He stated that it is very important for DNREC to provide the RTE information they have promised the Project Team.

**As a result of the comments of the Agencies, the Project Team has revised its recommendations for ARDS for the Millsboro-South Area to include:**

- **No-Build Alternative**
- **On-Alignment Alternative A (Option 4)**
- **East Bypass Alternative B4-1**
- **East Bypass Alternative B4-2**
- **East Bypass Alternative B4-3**
- **East Bypass Alternative B5-1**
- **East Bypass Alternative B5-2**
- **East Bypass Alternative B5-3**
- **West Bypass Alternative D8**
- **West Bypass Alternative D9**
- **West Bypass Alternative I-6**

#### *Schedule and Next Steps*

Mr. Hite noted the next steps for the Project Team:

- Working Group Briefings in September 2005
- Newsletters to residents and mailing list in late September-early October 2005
- Working Group Meetings in November 2005, January and February 2006
- Public Workshops in March 2006

Mr. Hite thanked the attendees for their cooperation and participation in the ARDS selection process.

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Meeting Summary prepared by Katry Harris. Please provide any comments or corrections to her by phone at 410-462-9317, by fax at 410-225-3863, or by e-mail at [kharris@rkkengineers.com](mailto:kharris@rkkengineers.com).



## Memorandum of Meeting

**Date:** November 28, 2006

**Time:** 9:30 AM

**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE

**Topic:** **Project Status/Alternatives update for Resource Agencies**

### Attendees:

Monroe Hite, III - DelDOT	Bryan Hall – Delaware Office of State
Don Plows – DelDOT	Planning Coordination
Terry Fulmer – DelDOT	Gwen Davis - DESHPO
Michael Hahn – DelDOT	Bill Hellmann – RK&K
Theresa Claxton – FHWA	Joe Wutka – RK&K
Ed Bonner – USACE	Eric Almquist – RK&K
Jim Butch – EPA	Justin Reel – RK&K
Kevin Magerr – EPA	Erika Rush – Urban Engineers
Bob Zepp - USFWS	Grace Ziesing - JMA
Matt Bailey – DNREC	Karl Kratzer – WR&A
Eileen Butler – DNREC	Todd Oliver – WR&A
Tricia Arndt – DNREC	Bob Kramer – Kramer & Associates
Anne Love – DNREC	Ed Thomas – Kramer & Associates
Scott Blaier – Delaware Dept. of Agriculture	Andrew Bing – Kramer & Associates

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A meeting was held Tuesday, November 28, 2006 to provide a project status update for representatives from various resource agencies. Material was presented regarding community issues, natural and cultural resource impacts and alignment shifts related to the Alternatives Retained for Detailed Study (ARDS).

### **INTRODUCTION**

Monroe Hite, III welcomed the group and thanked everyone for their attendance. Mr. Hite then reviewed the meeting agenda and indicated that the purpose of the meeting was to provide a status update throughout the project area, discuss current issues related to resource impacts and review the current project schedule. Mr. Hite briefly reviewed the handout materials provided and indicated that today's discussion would begin focusing on the Milford area alternatives. Mr. Hite then reviewed a statement from DelDOT Secretary of Transportation, Carolann Wicks. Mr. Hite reiterated that the goal is to develop a project schedule that results in a preferred alternative in calendar year 2007 for both the Milford and Georgetown-South areas.



Mr. Hite then introduced Todd Oliver to provide a brief update on the traffic model. Mr. Oliver indicated that the travel demand model is being updated and results will be provided at the next scheduled meeting on December 12, 2006. Mr. Oliver also stated that preliminary results indicate that all build alternatives currently meet Purpose and Need.

### **MILFORD AREA**

Mr. Oliver then introduced Mr. Bob Kramer to provide an update on community issues in the Milford project area. Mr. Kramer presented a summary of the public outreach to date and feedback from the Working Group and Public Workshops. Mr. Kramer discussed the opposition to the on-alignment alternative from the Working Group, business community and City of Milford. Mr. Hite reminded attendees that materials from the working group meetings and public workshops are available on the project website. Mr. Kramer also mentioned the support for an east bypass alternative and the community organization, Concerned Citizens of Greater Lincoln. Mr. Kramer discussed that group's support for the Brown alternative and opposition to the Green and Purple alternatives.

Mr. Matt Bailey inquired about the agenda of the Concerned Citizens of Greater Lincoln and who they represent. Mr. Kramer indicated that the group essentially includes a majority of the residents in Lincoln and that the influence of a few individuals has been a significant factor in expanding their support. Based on the comments received, Mr. Kramer also stated that the main issue seems to be that Lincoln wants to remain separate from Milford and the Brown alternative appears to create the barrier to maintain that separation. Mr. Bailey asked if Lincoln is incorporated. Mr. Bryan Hall replied no and indicated that he believes Lincoln is the only town among twenty-five in Sussex County that is not incorporated. Mr. Hite also mentioned the fact that in an effort to gain support Concerned Citizens of Greater Lincoln have distributed inaccurate information through the media. Mr. Hite also noted that "dividing Lincoln" is one main issue that is mentioned when referencing the Green and Purple Alternatives. Mr. Joe Wutka stated one misconception is defining Lincoln as the main area of the town versus the citizens group defining Lincoln by the Lincoln postal zip code. In fact, Mr. Wutka mentioned that portions of Lincoln are currently within the Milford city boundary.

Mr. Kramer then indicated that there has been a rather long break since the last working group meeting and the schedule is expected to intensify when meetings resume in January 2007. Mr. Kramer stated that the intent of the project schedule is to have the working group recommend a preferred alternative by March 2007.

Mr. Kramer then introduced Mr. Karl Kratzer to provide an update on Natural Resources. Mr. Kratzer reviewed the status of Natural Resources throughout Milford, including wetlands and RTE issues. Mr. Bob Zepp indicated that the project team should receive a signed letter confirming the only RTE species in the project area are Swamp Pink and the Bald Eagle. Mr. Kratzer reiterated that wetland boundary verification is complete and field reviews have been conducted with the agencies to discuss potential impacts. Mr. Kratzer then discussed the field



review results of some alignment shifts of the Orange and Blue Milford west bypass alternatives that have been made in attempt to reduce impacts to natural resources. Mr. Kratzer stated that while shifts were attempted to reduce impacts at the crossing of Johnson Branch a field review determined that the shifts would create a new crossing impact in a higher quality wetland. During a second field view with agency representatives, it was determined that the original alignments should be retained. Mr. Kratzer referred to the display plans provided as handouts for the purpose of discussion. Ms. Eileen Butler reminded the group that additional Delaware Nature Society lands will be protected as part of new regulations effective December 6, 2006. Ms. Butler also stated that DNREC has finalized updated State Natural Resource Area Maps and property owners have been notified. Mr. Kratzer inquired whether those lands will be protected using State or Federal funds. Eileen stated that most of the lands were protected with State budget monies. Mr. Bryan Hall clarified that while the State budget funds were used for protection, some of the money may originate from Federal grants depending on the state program under which the lands are protected. Mr. Hall indicated that the funding source for each protected parcel should be investigated. Mr. Bailey asked if consideration was given to upland forest impacts. Karl Kratzer asked Eileen Butler whether DNS intended to acquire additional property in the Johnson Branch area, particularly to the east of the existing protected lands. Joe Wutka indicated that the current alignments pass to the east of the current, state protected areas. Ms. Eileen Butler indicated that she will likely recommend that DNREC oppose the Blue and Orange Alternatives. Eileen Butler will provide the Project Team with a priority list of areas to be protected. Matt Bailey will develop a finite list of areas that DNREC will want to review in the field. An extensive discussion followed, regarding translocation (Delmarva fox squirrels) and habitat conservation in conjunction with mitigation requirements. Ed Bonner indicated that the Delmarva Fox Squirrel issue should not affect this project since it was experimental and still in the talking stages. Matt Bailey concurred. It was also generally agreed that habitat conservation should be looked at in conjunction with mitigation requirements for this project with emphasis placed on areas adjacent to Redden State Forest for conservation sites.

Mr. Kratzer introduced Mr. Eric Almquist to discuss cultural resources. Mr. Almquist reviewed a matrix summarizing the cultural resource work that has been completed for the Milford area. Mr. Almquist also discussed the proposed schedule for future submittals. Mr. Michael Hahn stated that the total number of properties reviewed is something that is constantly changing and should probably be removed from the final total on the matrix. Ms. Gwen Davis also mentioned that the review time shown on the matrix is not necessarily representative of when the SHPO received the initial submittal.

Mr. Oliver then discussed specific properties along the Milford Alternatives that may have 4(f) resource impacts. Among the seven alternatives retained for detailed study, Mr. Oliver said it appears that the three east bypass alternatives and one west bypass (Blue) alternative avoid 4(f) resource impacts. Mr. Oliver indicated that there is one current impact associated with the Orange alternative that appears to be avoidable; however, there are multiple unavoidable potential 4(f) resource impacts associated with the Yellow (on-alignment) alternative. Ms. Davis noted that Section 4(f) is important and reminded those in attendance of the importance of Section 106, including indirect impacts. Ms. Davis noted that if we are attempting to balance



impacts to Fitzgeralds, we need to quantify the indirect impacts to Section 106 resources for the Purple and Green Alternatives. Ms. Davis asked about archaeological impacts and if numbers have been developed in accordance with the predictive model. Mr. Almquist replied that the predictive model impacts will be added to the matrix.

Mr. Oliver then presented alignment shifts to the Brown Alternative that have been developed, to date, in an effort to reduce natural resource impacts to the forestland/wetland area surrounding Herring Branch. Mr. Oliver asked attendees to refer to the display plans and impact matrix provided with their handouts. Mr. Oliver mentioned that there are currently nine Brown Alternatives under consideration. Mr. Oliver stated that Alternatives 1A through 1D shift the alignment to the north and have significant impact to a proposed development, Central Parke, which is currently under construction. Mr. Kramer also mentioned that Central Parke is an age-restricted community that relies on a certain number of housing units to support the use of common facilities, such as a community club house or fitness center. Mr. Oliver stated that alternatives 2A and 2B and 3A and 3B continue the alignment through the Herring Branch wetland. Mr. Oliver added that Alternatives 1D, 3A and 3B also include 4(f) impacts to Fitzgerald's Auto Salvage yard. Mr. Oliver then indicated that impacts from each of the brown alternatives result in forestland impacts greater than 20 acres. Mr. Ed Bonner then explained why the project team needs to develop the very best Brown Alternative possible, due to the support from the working group and public. Mr. Bonner asked about the feasibility of removing ramps to reduce impacts on natural resources. Mr. Bailey stated that it will be helpful to have the opportunity to review the habitat and the quality of the forestland impacts associated with the Brown alternatives that have not been previously reviewed. In reference to the Fitzgerald's property, Mr. Almquist mentioned that the law is not absolute when referring to 4(f) impacts and if it is possible to prove no adverse impact then it might not eliminate the feasibility of the Brown Alternative. Ms. Davis cautioned that the property was deemed eligible as part of a previous study completed in 1988 in conjunction with the dualization of US 113 and it is not likely the associated boundary will change. Mr. Jim Butch and Mr. Kevin Magerr mentioned the potential for hazardous materials on the Fitzgerald's site. Mr. Bill Hellmann asked Ms. Theresa Claxton about the potential justification for a 4(f) impact based in-part on significant community impacts, and referred to FHWA's draft regulations regarding Section 4(f), as a result of SAFETY\_LU. Ms. Claxton indicated that it would likely be difficult to demonstrate that the Purple and Green Alternatives are not prudent and feasible avoidance alternatives, unless there are significant direct community impacts. Ms. Claxton stated she would research the issue and follow-up with the project team after the meeting. Mr. Bonner suggested the project team attempt to refine the Green and Purple Alternatives to address the community concerns, making them more palatable to the communities, e.g. lower profile, address noise, etc. Joe Wutka responded that the alternatives have been refined to address community, e.g. additional overpasses provided to retain existing north/south access under US 113. In essence, the community wants US 113 to be a barrier between Milford and Lincoln, and they want it located further to the north, along the Brown alignment and not further south, along the Purple or Green alignments. Gwen Davis noted that US 113 may not create a boundary for development, as some members of the community believe. Mr. Kramer noted that people of Lincoln believe this is a "life style" issue and they do not want it changed by US 113. Milford is different – it is



changing. Mr. Hite noted that the City of Milford seems to prefer Brown (not officially), but would likely oppose impact to Central Parke, already annexed and under construction. In fact, the phase under construction involves their pump station, SWM facilities, and residents, and is the south section of the property, i.e. that area affected by the Brown Alignment options that attempt to minimize impacts to natural resources.

### **GEORGETOWN AREA**

Mr. Kramer reviewed community issues for the Georgetown-South project area and indicated that there is no clear preference from the working group or the community about an alternative in Georgetown. In Millsboro, there is also limited support for the alternatives; however, there is more opposition to the west bypass alternatives and more concern expressed about the East/West traffic movements. Mr. Kramer mentioned that the project team, at the request of the Georgetown working group, is developing alternatives for an East to East option between Georgetown and Millsboro.

Mr. Kramer introduced Mr. Kratzer to review natural resource impacts in the Georgetown-South project area. Mr. Kratzer indicated that wetland boundary verification and the associated field reviews are underway. Mr. Kratzer also stated that additional reviews will be scheduled in January.

Mr. Almquist provided a summary of cultural resource submittals to date and mentioned that the next round of field reviews is tentatively scheduled for the week of December 18<sup>th</sup>. Mr. Oliver presented information on potential 4(f) resource impacts in Georgetown based on current available data. Mr. Oliver indicated that there are two critical locations that affect all of the proposed build alternatives in Georgetown. Mr. Oliver also stated that SHPO has recently begun reviewing resources in the Millsboro-South area and the bypass alternatives have been adjusted to avoid resources preliminarily recommended eligible by the project team.

Mr. Wutka provided more detail about the East to East connection previously mentioned by Mr. Kratzer. Mr. Wutka referred attendees to the handouts, including maps and an impact matrix. Mr. Wutka described the two alternatives (Yellow and Green) shown and reviewed the numbers provided in the impact matrix, noting the increase in forestland impacts. Ms. Butler stated that both the Yellow and Green East to East alignments cut through Natural Areas. She also indicated that it appears the current Millsboro east bypass alternatives are located on or very near a protected state nature preserve. Ms. Grace Ziesing mentioned that there were some potential cultural resources identified within the project area. Mr. Wutka responded that he believes all of the preliminarily identified resources have been avoided. Since the changes in state Natural Areas were only recently approved, those changes would not be reflected in the project mapping for the area of the East to East connection. Mr. Hite mentioned that these alternatives have not been presented to the public and the project team would like to have feedback from the resource agencies to determine if it is reasonable to present to the public.



Mr. Hite stated that the next agency meeting is scheduled for December 12, 2006 at 9:30 AM. Mr. Hite reviewed the tentative agenda for that meeting and also reviewed potential dates for meetings in January and February and asked that everyone add those dates to their calendars. Mr. Bailey asked when the project team would like to have a recommendation from the agencies. Mr. Hite indicated that obtaining comments on what each of the agencies likes and dislikes about the alternatives in the Milford area and possibly a preliminary recommendation would be a goal for the first meeting in January.



## Memorandum of Meeting

**Date:** December 12, 2006

**Time:** 9:30 AM to 2:00 PM

**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE

**Topic:** Alternatives update for Resource Agencies

### Attendees:

Monroe Hite, III - DelDOT  
Don Plows – DelDOT  
Terry Fulmer – DelDOT  
Bob Kleinburd – FHWA  
Theresa Claxton – FHWA  
Ed Bonner – USACE  
Jim Butch – EPA  
Kevin Magerr – EPA  
Bob Zepp - USFWS  
Mark Biddle – DNREC  
Eileen Butler – DNREC  
Tricia Arndt – DNREC  
Anne Love – DNREC

Bryan Hall – Delaware Office of State  
Planning Coordination  
Bill Hellmann – RK&K  
Joe Wutka – RK&K  
Eric Almquist – RK&K  
Justin Reel – RK&K  
Maggie Sunderland – RK&K  
Erika Rush – Urban Engineers  
Jeff Riegner – WR&A  
Todd Oliver – WR&A  
Bob Kramer – Kramer & Associates  
Ed Thomas – Kramer & Associates  
Andrew Bing – Kramer & Associates

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A meeting was held Tuesday, December 12, 2006 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to present additional information regarding alternative refinements and associated impacts since the last meeting held November 28, 2006.

### INTRODUCTION

Monroe Hite, III welcomed the group and thanked everyone for their attendance. Mr. Hite then reviewed the meeting agenda and indicated that the purpose of the meeting was to present more details regarding the impacts associated with the Georgetown-South East-to-East Alternatives and the Milford Alternatives, including several Brown Options. Mr. Hite briefly reviewed the handout materials provided, including the power point presentation, 11x17 maps of the various alternatives, and impact matrices for the East-to-East Alternatives and the Milford Alternatives.



Mr. Hite then introduced Jeff Riegner to give a brief update on the traffic numbers. Mr. Riegner reiterated that all the build alternatives meet purpose and need, although some are more effective than others.

Mr. Riegner then introduced Joe Wutka to discuss the Georgetown-South East-to-East Alternatives.

### **GEORGETOWN-SOUTH AREA: EAST-TO-EAST CONNECTION**

Mr. Wutka began by stating the goal for today's discussion is to secure the agencies' input on whether the east-to-east alternative should be presented to the public. Mr. Wutka reminded attendees that based on feedback from the public and Georgetown Working Group, there is not a clear preference for an alternative; however, the east-to-east alternative was suggested by that Working Group. He also stated that the Millsboro Working Group has generally favored an east bypass alternative. Mr. Wutka mentioned that there is also a concern about addressing east-west traffic issues. He also indicated that a factor in supporting an east bypass is to direct beach traffic away from business US 113 because the Millsboro and Georgetown do not necessarily rely on beach traffic for business. Mr. Wutka then presented refinements to the two (Yellow and Green) east-to-east alternatives since the last meeting. He reviewed the Yellow and Green alternatives and reiterated that refinements were made to alleviate concerns about impacts to Natural Areas discussed at the last meeting. Mr. Wutka then introduced Justin Reel to discuss details regarding the natural resources in the area and field observations.

Mr. Reel indicated that based on recent field observations, the forests in the area are typically Loblolly Pine – Hardwood association of varying maturity. Mr. Reel also noted that some areas have been recently logged and highlighted those locations on the aerial mapping. Mr. Reel then stated that the GIS wetland data appears to overestimate the wetland area along the Yellow east-to-east alternative. Mr. Reel cited specific locations that were observed in the field where upstream crossings of Cow Bridge Branch generally have lower quality wetlands than crossings currently proposed along the Millsboro east bypass alternatives. Mr. Reel also indicated that the initial field view did not include representatives from DNREC, who are scheduled for a second field view tomorrow, December 13, 2006.

Ms. Eileen Butler noted, in reference to recent clearing observed in the field, that one of the parcel shapes highlighted on the map is scheduled for development. Ms. Butler asked if the project team is aware of the development and Mr. Reel clarified that the pink shading on the mapping represents proposed development in varying stages of review.

Mr. Wutka then presented the advantages and disadvantages of the east-to-east alternatives, including the changes made since the last meeting. Ed Bonner expressed concern regarding the proposed interchange for the alternatives at SR 30. He indicated that the goal of the project is create a continuous north/south limited access route. Mr. Bonner stated that a full interchange at this location will encourage new development and possibly increase sprawl. Mr. Bonner mentioned that he understands the need for a full interchange at major east/west routes such as



SR 24 where there is an existing need. He noted that a full interchange at SR 30 has the potential to promote sprawl.

Mr. Hite asked Bryan Hall to provide input on the position of the Office of State Planning regarding the potential interchange at SR 30. Mr. Hall responded by stating it is difficult to see the whole picture when focusing on the display maps, which show existing conditions along the alignments. Mr. Hall said it appears that the east-to-east alternatives are in a level 4 area, but there are several proposed developments throughout the surrounding areas not currently shown on the maps. Mr. Hall also stated that considering the amount of development (potentially thousands of new homes) it is not a question of whether ramps will be needed, but when. Bill Hellmann reminded the group that it is possible to include wording in the DEIS that would provide for a potential interchange, but require an evaluation of need in the future, prior to initiating final design, to assure the interchange is addressing a transportation need and not promoting development or sprawl by being constructed, or by being constructed too early. Jim Butch asked if permits are being provided or applied for in the short term. Mr. Hellmann replied no and mentioned that the improvements associated with US 113 are 15 to 25 years away, not within the next five to ten years.

Mr. Bonner then expressed concern about the cumulative effects/impacts associated with the project, especially with potential interchanges. Eric Almquist indicated that cumulative development is typically driven by county and state planning rather than roadway improvements. Mr. Hall referred to the pace at which Sussex County is reviewing development plans and noted that it is unlikely that the proposed roadway will be the cause for increased development.

Mr. Hellmann reiterated that the big picture focus for this project is to determine a recommended preferred alternative and to then protect that corridor for the future. He also stated that the project team needs to be sure that the agencies do not object to the selected corridor since DelDOT will be purchasing right-of-way, as necessary, to protect that corridor. Mr. Hellmann reiterated that to avoid the potential for a proposed interchange promoting sprawl or development, the DEIS can be drafted to establish a policy for interchange construction, based on agreed to need, to assure that it does not promote sprawl. Mr. Hite also said that the project team is working with the Office of State Planning to ensure that the recommended alternative is consistent with Livable Delaware.

Mr. Hall said that his agency is looking to the other agencies for direction about a specific alternative. Mr. Hall also stated that his agency is not strongly opposed to any alternative at this point, but politics change frequently. Mr. Hall encouraged due diligence by the project team when recommending the preferred alternative. Mr. Kleinburd asked Mr. Bonner if he would prefer the alternatives be shown without an interchange at SR 30. Mr. Bonner expressed a general concern about the east-to-east alternatives moving away from a more direct north/south corridor. Mr. Kleinburd indicated that it is difficult to determine where interchanges will be needed 15 to 20 years from now. Mr. Riegner mentioned that the project team wants to ensure the ability to provide future interchanges when they are needed. Mr. Hall reiterated that development in the area is already an issue. Referring to sanitary sewer study patterns along SR



24, Mr. Hall indicated that it is becoming a “subdivision highway.” Mr. Hall also mentioned that although the housing market has slowed recently, it is difficult to predict what will happen in five years if Sussex County continues to approve development plans.

Mr. Hellmann stated that the bottom line for this project is that there has to be a single recommended preferred alternative and we need concurrence from the agencies that it is permissible. Mr. Hite asked the agencies if an east-to-east alternative should be presented to the public. Ms. Butler requested that the current Nature Preserve areas along Cow Bridge Branch be added to the maps to help clarify impact. Ms. Butler also presented objection to the current east bypass alternatives (shown in silver on the map) of Millsboro, referring to the potential fatal flaw impact to an existing Nature Preserve.

Mr. Wutka continued the discussion summarizing reasons why the east-to-east alternatives should or should not be presented to the public. Referring to the discussion about showing interchanges on the maps, Mr. Wutka also stated that the interchanges were included in calculating estimated impacts. Mr. Hall said that his office will provide Mr. Hite with updated forestland information in GIS format for calculating impacts. Mr. Bonner and Ms. Butler indicated that they would prefer to show the east-to-east alternatives without an interchange at SR 30. Mr. Butch reiterated his concern about sprawl in the area and potential problems with evacuation routes. He then asked about the possibility of reserving the right to construct an interchange based on future need.

Mr. Wutka mentioned the possibility of showing a simplified partial interchange for emergency access purposes, similar to SR 1/SR 8. Mr. Wutka reminded the group that that interchange was initially designed for emergency purposes and later became a full-access interchange based on demand. Mr. Bonner replied that an emergency interchange will not be as impactful as the one currently shown on the east-to-east alternatives. Mr. Hellmann said that providing a simpler configuration will maintain the potential to construct a full access interchange in the future, but reduce the likelihood of encouraging development.

Mr. Kleinburd said the county should be controlling sprawl, not DelDOT. Mr. Hellmann said that there are only a limited number of major crossroads in the corridor and we know where the interchanges will most likely be. Mr. Hite reminded the group that the project team will be questioned about access if no interchanges are shown. Mr. Butch said if the interchange is presented as an emergency access, it should deter developers from purchasing surrounding land. Mr. Butch stated that he has been overwhelmed by the amount of traffic in the Millsboro area during the few times he has driven there. He also reiterated the potential for disaster in a coastal area and the need to have functional evacuation routes.

Mr. Bonner mentioned that SR 30 and SR 9 already intersect beyond the project area and constructing an interchange will only encourage more traffic along SR 9. Mr. Riegner said the long-term view is that the interchange will be built to serve traffic generated by development that is likely to be built before the roadway. Ms. Butler asked Mr. Kleinburd about his preference to show ramps on the maps. Mr. Kleinburd replied that he would rather not show ramps. Mr.



Butch asked if the purpose is to preserve the area to deal with access in the future. Mr. Kleinburd indicated that no matter what is eventually built in the area of a potential interchange, it can be purchased if necessary. He said the main issue for the EIS is secondary and cumulative impact/development. Ms. Butler asked if a representative from Sussex County has been invited to the agency meetings. Mr. Hite stated that Kent and Sussex County are represented on the working groups. Mr. Hall indicated that the counties have been given information similar to what is presented to the working groups and they are not typically involved at this level of detail.

In an effort to summarize the discussion, Mr. Hite stated that the east-to-east alternatives can be presented in a way to address the agencies concerns about interchange access and evacuation/emergency access. Mr. Hite asked the agencies if they feel the east-to-east alternatives should be presented to the public. Ms. Butler indicated that she feels the current Millsboro east bypass alternatives should not be shown because the direct impacts to a Nature Preserve make them infeasible. Mr. Bonner reiterated his concern about showing access ramps that are not currently necessary.

Mr. Wutka continued his discussion about the impact matrix for the east-to-east alternatives. He also asked Ms. Butler to provide updated GIS data to confirm the existing Natural Area boundaries. As part of the impact matrix comparison, Mr. Wutka indicated that the adjustments to the Yellow and Green significantly reduced impacts to Natural Areas but wetland impacts increased dramatically. Mr. Wutka also reiterated the potential for cultural resource impacts to properties that have not been previously reviewed.

Ms. Butler raised her concern about impacts to natural areas along the Yellow and Green east-to-east alternatives. Mr. Butch asked if the alternatives can still be shifted. Mr. Wutka said yes and asked if the agencies are more comfortable with the results of the revised east-to-east alternatives or do they prefer the original alignments. Mr. Butch said he liked the idea of keeping the east-to-east alternatives on the table for discussion and further refinement. Mr. Kramer asked the group if the project team should present both alternatives, one alternative or no alternatives. Mr. Hellmann followed up by asking what should be presented to the public. Upon further discussion, it was determined that one Yellow and one Green east-to-east alternative should be presented at the next working group meetings. Mr. Riegner asked if the group preferred the original or revised alignments, considering the significant increase in the wetland impact associated with the revised Yellow alternative. Mr. Wutka asked Mr. Reel if he felt there is a potential the wetland impact associated with the Yellow alternative will be reduced pending additional field work. Mr. Reel estimated that the total area of wetland impact could be reduced based on some inconsistencies between the GIS data and what he has seen in the field. Kevin Magerr asked what percentage of the wetland impact is associated with the proposed interchange at SR 30. Mr. Wutka said that information has not been calculated, but could be easily obtained. **Following more discussion, it was determined that the modified Green and original Yellow east-to-east alternative will be presented to the public.**

### **MILFORD AREA**



Mr. Riegner then introduced the impact matrix for the Milford area alternatives. Mr. Riegner described each alternative and presented advantages and disadvantages for each as he reviewed the associated impacts. When discussing the Yellow (on-alignment) alternative, Mr. Riegner stressed unavoidable 4(f) impacts as well as the opposition by the public and the City of Milford. Mr. Bonner asked if the economic impacts accounted for the inclusion of local access roads to maintain some existing residential and commercial in areas adjacent to US 113. Mr. Riegner indicated yes - it is being taken into account. Tricia Arndt asked whether the on-alignment alternative will continue through the evaluation process and into the EIS. Mr. Riegner emphasized that all retained alternatives currently under discussion are carried through the environmental document. He continued by describing the impacts resulting from the Green and Purple east bypass alternatives. Mr. Riegner then reviewed the Orange and Blue west bypass alternatives. In addition to the impacts to natural resources previously discussed, Mr. Riegner informed the group that a recently discovered Bald Eagle nest is located near the Orange alternative. In fact, he said a portion of the alternative is within the nest's 750-foot buffer zone.

Mr. Riegner asked for feedback from the agencies regarding the Orange and Blue alternatives. Multiple members responded that there are other Milford alternatives they prefer, namely Purple and Green. Mr. Riegner then asked for comments on the Green and Purple alternatives. One response indicated that Green is preferred over Orange and Blue. Mr. Kleinburd stated that Green and Purple appear to be minor variations of the same alternative. Mr. Bonner said he prefers to give the public a choice even if the two are similar. He asked if there is a difference between the Green and Purple when determining the application of stormwater management for the two alternatives. Mr. Riegner replied that they are both conceptually designed to provide for adequate treatment in accordance with standard regulations and stormwater management will not likely be a deciding factor between them. Mr. Hite also stated that some of the comments from the public, especially groups lobbying against the Green and Purple alternatives, revolve around stormwater management issues and the proximity of the alignments to the ponds. Ms. Butler asked how far the Purple alternative is located from the ponds. Mr. Riegner said it is approximately 600 feet based on the scale from the display maps. Mr. Riegner also mentioned that one other common measurement when comparing the east bypass alternatives is the relative distance from the center of Lincoln, with Green slightly closer to the Lincoln signal than Brown, and Purple slightly more distant than Brown. Using the map to demonstrate, Mr. Riegner showed that the three east bypass retained alternatives are approximately equidistant from the traffic signal in the center of Lincoln.

Mr. Magerr asked if the project team has considered the proximity/access to hospitals and senior facilities when comparing the alternatives. Mr. Riegner said that such access is being considered. Mr. Hall then mentioned the proposed hospital development along the east side of SR 1 and the potential annexation of property in the area. Mr. Hall said recent developments indicate that the proposed hospital is on hold and it is not likely for annexation to occur without the hospital being on board.

Mr. Bonner then shifted the discussion to the proposed interchange ramps shown on the maps. Mr. Bonner recommended that the project team add wording to the EIS to include a provision for



interchanges that are provided for existing traffic movements/needs versus proposed future development. Mr. Bonner cited the SR 1/SR 30 interchange and questioned whether all the access ramps are necessary. Mr. Wutka mentioned that not all the ramps shown are for one alternative because the alternatives are combined on one map. Mr. Wutka then used a separate map that showed only the Green and Purple. Mr. Riegner also stated that generally it is DelDOT policy to provide all movements at the intersection of two major arterials. Therefore, the issue of providing interchanges is as much a policy decision by DelDOT as it is based on current traffic needs. Mr. Riegner referred to an issue associated with truck movements originating west of US 113 attempting to access SR 1. He described the current route that directs trucks along Johnson Road through Lincoln and ultimately to an unsignalized crossover at SR 1. Mr. Bonner mentioned that there are no apparent natural resource issues at the south end of Green and Purple; therefore, providing complete access is not an issue. Ms. Butler asked if the right of way costs accounted for proposed development, including acquisition of individual lots for a proposed subdivision. Mr. Riegner replied that impacts to approved developments have been included in the estimated costs.

Mr. Riegner reviewed the impact matrix for the multiple Brown options. As he reviewed the primary matrix, Mr. Riegner provided a range of values for impacts while reiterating advantages and disadvantages of each. When considering the options, Mr. Riegner stated that there are three main issues to consider:

1. The impact to the forested wetland along Herring Branch
2. The impact to the proposed Central Parke development
3. The 4(f) impact to Fitzgerald's Auto Salvage

Mr. Magerr asked if the eligibility of the 4(f) resource at Fitzgerald's has been re-evaluated because he does not understand the historical significance. Mr. Riegner said it was originally identified as eligible in the early 1990s; some reasons include the fact that it has been owned and operated by the same family, it has contributed to the history of the auto industry and has essentially remained unchanged since it was recommended for eligibility. He confirmed that the property was re-evaluated as part of the US 113 study, and that it remains eligible for the National Register.

Ms. Butler asked if there is a process to initiate a re-evaluation. Mr. Kleinburd replied that FHWA has the authority to challenge the evaluation by submitting a formal application to the Keeper of the National Register. Mr. Kleinburd stated that it has been done successfully about three times in Delaware; however, it is unlikely that FHWA would pursue that path unless the recommendation is really off-base. In this case, Mr. Kleinburd reiterated that DelDOT concurs in the determination and does not believe the appeal would be successful. Mr. Bonner then asked if it is unlikely the evaluation will change, can SHPO come to an agreement with FHWA, assess adverse impact and consider mitigation. Mr. Kleinburd stated that it would be a very difficult case (almost no-win) to make for any Brown option that impacts Fitzgerald's.

Mr. Bonner asked if the Brown alternative is viable without the access ramps for all movements at the south end where it intersects business US 113. Mr. Hellmann stated that the ramp access is



a judgment/policy issue for DelDOT, but the 4(f) impact is likely a fatal flaw. Mr. Bonner asked if any Brown option currently on the table can realistically be designed with impacts comparable to Green or Purple. Mr. Bonner indicated that dividing the habitat surrounding the wetland complex adjacent to Herring Branch is not something he would prefer, but he needs to be assured that every attempt was made to avoid that option and that it is adequately documented. Mr. Hite then stated that the Department does not have the means to purchase the necessary right of way from Central Parke. Mr. Bonner then indicated that although the natural resource impact values associated with option 4A are comparable to Green and purple, it still divides the habitat. Mr. Hellmann then asked the group if DelDOT can live without the ramps, can the agencies live with splitting the habitat. Mr. Hite asked for feedback from other agency representatives, with the understanding that DelDOT needs to address the access ramps. Mr. Riegner asked for group comments if the project team confirms that options 1A through 1D are not feasible due to impact to Central Parke. Ms. Arndt stated she is uncomfortable supporting Brown. Additional DNREC representatives, including Mark Biddle and Anne Love also agreed that they would not support Brown if Green and Purple are feasible. Mr. Hite stated that if the project team has exhausted all possibilities with Brown, a public outreach strategy will be required. Mr. Wutka stated that it is clear that impacting Central Parke is not a feasible option. Mr. Bonner reminded the group of the strong support Brown has gathered from individuals who have been very proactive in contacting review agencies as well as political representatives.

Mr. Bob Kramer then reminded the group that the fundamental issue for citizens of Lincoln is to provide a barrier from annexation into Milford. The citizens of Lincoln envision the Brown alternative as the best option for providing that separation from Milford. Mr. Bonner stated that perception is going to be their reality regardless of which alternative is chosen. Mr. Biddle asked about the public perception of the Central Parke. Mr. Riegner indicated that the City of Milford will not stop the development for the purpose of preserving a corridor. Mr. Riegner also stated that any degree of impact to the development would be significant due to the type of community and associated common facilities. Mr. Riegner reminded the group that none of the multiple Brown options have been presented to the public yet, including the potential impact to Central Parke. Mr. Hellmann said the bottom line is whether the agencies would consider the Brown alternative permissible. Mr. Don Plows asked if alternative ramp locations have been considered as a means of providing full movements in conjunction with option 4A. Mr. Biddle reiterated that regardless of the ramp locations, he would not support splitting the habitat. Mr. Butch mentioned he is still trying to understand the issue between Milford and Lincoln and the need for separation. Ms. Butler indicated if Lincoln is that serious about its independence then they should be incorporated. Mr. Hall said that they have initiated that process. Mr. Hite also mentioned that the project team was unaware of the community divide between Milford and Lincoln prior to this study.

Mr. Kleinburd stated that he disagrees with the current approach of the project team asking the agencies to provide a definitive response at this stage. He reminded the group that the intent of the DEIS is to recommend a preferred alternative based on the public feedback and the level of impacts. Mr. Kleinburd stated that we are supposed to determine a preferred alternative that is the least environmentally damaging alternative and then present it to the public for comment.



Mr. Kleinburd indicated he thinks the project team is trying to go beyond where the project should be at this point in the process.

Mr. Hellmann mentioned the main difference between this project and US 301 is the inclusion of working groups. Mr. Hellmann continued by stating the project team can not go back to the Working Group or public with a Brown option that will not be feasible due to permitting issues. Mr. Kramer then indicated that some members of the public (Concerned Citizens of Lincoln) not necessarily the Working Group have protested in support of Brown. Mr. Kramer continued by saying the project team would rather not continue to present the Brown alternative if it is not permissible because it has the potential to gain tremendous public support quickly. As a result, Mr. Kramer stated that the project team is approaching the agencies in advance to avoid a collision course between public support and environmental agencies at the end of the process.

Mr. Butch then stated that EPA shares Mr. Bonner's sentiment and will not support Brown if the wetland habitat is divided. Mr. Biddle said another basis for comparison is to consider impacts per length of new roadway. He said this may accentuate the issues with Brown because it requires less new roadway, but has a larger impact when compared to the other bypass alternatives. Mr. Bonner then stated that the Brown alternative's impacts associated with dividing the Herring Branch wetland habitat are unacceptable and would not be permissible. Mr. Riegner requested concurrence from the group that the Green and Purple alternatives have the least environmental impact. Mr. Hellmann then stated that a bullet will be included in the next presentation to the Working Group and public that environmental agencies will not support a Brown alternative that divides the Herring Branch wetland habitat as long as the green and purple alternatives are feasible. Mr. Hellmann continued by saying the agencies would have an opportunity to review the wording prior to the presentation.

Mr. Butch inquired about the community response and whether environmental justice needs to be considered. Mr. Almquist stated that given the population in the project area, this is not an issue of environmental justice. Mr. Kramer then reminded the group that the community will have a strong reaction regardless of what is presented at the next meeting and ultimately as the recommended preferred alternative. Mr. Bob Zepp asked if there is a realistic expectation that a roadway, such as US 113, will actually stop Milford from growing. Ms. Theresa Claxton then suggested that the project team present options, such as incorporation, to the community of Lincoln, which could be potentially more effective at managing growth.

Mr. Hite presented an update about where we are in the process and some tentative dates for agency meetings as well as public outreach in 2007. He reminded the group that the dates for meetings in January and February have been firmly established; however, there may be some flexibility with the later dates. Mr. Butch indicated that the third Thursdays of every month are bad for some state agency representatives.

Mr. Hite concluded by thanking the attendees for their input.



## Memorandum of Meeting

**Date:** February 8, 2007

**Time:** 11:30 a.m. to 1:30 p.m.

**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE

**Topic:** Milford and Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III - DelDOT	Joanne Haughey – DNREC
Terry Fulmer – DelDOT	Gwen Davis - DESHPO
Michael Hahn – DelDOT	Bill Hellmann – RK&K
Bob Kleinburd – FHWA	Joe Wutka – RK&K
Ed Bonner – USACE	Eric Almquist – RK&K
Jim Butch – EPA	Justin Reel – RK&K
Bob Zepp - USFWS	Shilpa Mallem – RK&K
Mark Davis – DDA	Erika Rush – Urban Engineers
Matt Bailey – DNREC	Jeff Riegner – WR&A
Mark Biddle – DNREC	Bob Kramer – Kramer & Associates
Eileen Butler – DNREC	Ed Thomas – Kramer & Associates
Tricia Arndt – DNREC	Andrew Bing – Kramer & Associates
Anne Love – DNREC	

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A meeting was held Thursday, February 8, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to present information regarding recent working group, elected official, and community meetings, request comments on the first working draft environmental impact statement for the Milford area, review the results of the January 25, 2007 agency field view, and plan for the February 22, 2007 agency field view.

Note: The first portion of the meeting, from 9:30 to 11:30 a.m., was dedicated to US 301 Project Development. This memorandum does not include those discussions.

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the agenda. Materials provided included a copy of the PowerPoint presentation and minutes from the January 11, 2007 agency meeting.



## **MILFORD AREA**

Mr. Hite reviewed the results of several meetings held in late January. Briefings were conducted by Secretary Carolann Wicks and Mr. Hite on January 30 and 31, prior to the Milford area working group meeting held the evening of January 31. The purpose of these briefings was to present project status and schedule, East-to-East alternatives under consideration in the Georgetown-South area, and agency and Department positions on key issues in the Milford area. Elected officials briefed in January 30 included Rep. Booth in the Georgetown-South area and five officials in the Milford area. The next day, two meetings were held. The first was with Alvannah Davis of the Greentop Civic Association, representing the Greentop community just south of Lincoln. The second included members of the Concerned Citizens of Greater Lincoln and members of the Milford area working group that live in the Lincoln area.

The attendees at those meetings who represented the Milford and Lincoln areas clearly appreciated the effort the agencies and the project team put into making the Brown alternative work, and generally understood the agency and project team positions regarding Green and Purple being less environmentally damaging than Brown. The briefings were useful in preparation for the January 31 Milford area working group meeting.

At that working group meeting, the project team presented the alternatives as they were presented at the January 11 agency meeting, including a listing of advantages and disadvantages of each alternative. The project team conveyed its position, as well as the agency position refined with agency representatives during the January 11 meeting. Although response from the working group members was generally understanding, response from some members of the public observing the meeting was strongly negative. There is still a perception that the Green and Purple alternatives impact Lincoln in ways that the Brown alternative does not, and there were accusations that the project team had already made its decision and never seriously considered the Brown alternative.

Eileen Butler asked whether those same community members expressed any support for the Orange and Blue alternatives. Jeff Riegner said that although support for those alternatives has not disappeared, most folks seem to understand that the west bypass alternatives have serious resource impacts as compared to the east bypasses. Bob Kramer added that although the project team is doing its best to present the facts, this is definitely an emotional issue with the Lincoln community. Ms. Butler asked the project team how she might best respond to citizen concerns. Mr. Hite suggested that the positions presented at the January 11 meeting would be consistent with the project team's approach.

Mr. Hite and Eric Almquist asked the agencies for big-picture comments on the first working draft EIS. The following comments were received:

- Matt Bailey said he would email his comments to Mr. Almquist and Karl Kratzer. He also requested that a table of contents be provided in all subsequent drafts.
- Joanne Haughey suggested that a matrix be provided, and that Waters of the U.S., subaqueous lands, etc. be divided into separate categories. Ed Bonner said that "non-natural" waterways (i.e. ditches that did not originate as natural streams) be listed separately. Justin



Reel said that the USGS quadrangles, though not definitive, give a good first approximation of natural streams.

- Gwen Davis asked whether late historic archaeology is being added to the matrix. Mr. Riegner said the matrix is being updated based on Ms. Davis' email correspondence with the project team and will be included in the pre-draft EIS.

The full pre-draft EIS will be provided to DelDOT next Friday, February 16, with distribution to the agencies shortly thereafter pending DelDOT review.

Mr. Hite previewed several upcoming meetings, including public workshops in late February, working group meetings in March and April, and mid-June DEIS public hearings. Ms. Butler asked whether the agencies may attend the February workshops. Mr. Hite encouraged the agency representatives to attend so they may hear some of the concerns expressed by the public.

### **GEORGETOWN-SOUTH AREA**

Mr. Hite reminded the attendees of the January 25 field view conducted in the Georgetown-South area. Mr. Reel reviewed each site individually.

1. **Rudd Road area.** This site consisted of mixed hardwoods, with areas logged since the 2002 aerial photographs visible to the north. Drawdown from the Savannah Ditch was evident. Tricia Arndt asked whether this site was state forest land *[it is, on both sides of Rudd Road]*. Mr. Bonner asked whether the mapping shows updated wetlands based on field work; Mr. Riegner said that the mapping is not yet updated. Ms. Davis indicated that two CRS points south of Rudd Road to the east of the visited site appear to be from an obsolete data file. Anne Love suggested that blue-line streams be plotted on the mapping.
2. **Peterkins Road area.** This area has been mapped as state resource areas, but has been largely logged; some logging was taking place during the field view.
3. **White Oak Swamp Ditch.** This site was viewed from the van. Ms. Haughey suggested that this site and the adjacent Sockorockets Ditch be viewed more thoroughly in the field.
4. **Deep Branch.** There was substantial discussion in the field at this site, where dual culverts carry the stream under Deep Branch Road. In the field, it was suggested that impacts be limited to the already cleared road crossing area as much as possible. Mr. Bailey said that the area is excellent potential Swamp Pink habitat. Joe Wutka presented a revised map of the Violet alternative in the area. Several attendees recommended that a less-impactive alignment be considered.
5. **Cow Bridge Branch.** Discussion of this site revolved around the State's designation of the area as a "nature preserve." Specifically, the area must meet FHWA's definition of "wildlife refuge" to enjoy Section 4(f) protection. Although Mr. Bonner expressed concern about the crossing, he indicated that the long, high structure required at this location may be somewhat of an advantage to minimize impacts. Subsequent to the meeting, Bob Kleinburd clarified that



*Section 4(f) protection only applies to public property designated as a “wildlife or waterfowl refuge.” The only way that other public property could receive 4(f) protection would be if it could be documented that the property in question actually functioned as a “refuge” for the protection of species.*

6. **North side of Indian River.** Ms. Davis indicated that the orange dots on the mapping are a complex of National Register listed archaeological sites, nominated in 1978. The district boundary is being resolved. She cautioned that this is a “highly sensitive area for prehistoric archaeological sites.” Mr. Almquist reminded the attendees that if the significance of the site warrants preservation in place, it could be subject to Section 4(f). Ms. Davis said it probably would not, and Mr. Kleinburd agreed. Ms. Davis did note that coordination with the Nanticoke Indian Association will be needed and that significant costs could be incurred in investigating the site. Also, Mr. Hite told the attendees that the site is proposed as a residential development, Ferry Cove, which is currently before the Sussex County Planning and Zoning Commission.
7. **Wal-Mart area in Georgetown.** The field view included a classic side-cast ditch. Mr. Bonner suggested further field effort in the area. Bob Zepp suggested that a recent (about 10-year-old) jurisdictional determination may be available.
8. **Ennis Road area.** This site was viewed from the side of the road. Mr. Reel indicated that further investigation is required to better define the limits of ditch drawdown.

Mr. Hite summarized the February 6, 2007 Millsboro-South Working Group meeting. The Working Group agreed that the east-to-east alternatives should be retained for detailed study. Mr. Riegner indicated that the Working Group had several questions about how traffic from west of Georgetown (SR 18/404 and SR 9) would access the east-to-east alternatives. One possible solution is an upgraded Alternate SR 24, which includes Morris Mill Road and portions of Speedway Road, Zoar Road, and Mount Joy Road. *[Note: The Georgetown Working Group also agreed at their February 8 meeting that the east-to-east alternatives should be retained, with similar discussion regarding Alternate SR 24.]*

Mr. Riegner and Mr. Reel briefly reviewed the ten sites that will be visited during the February 22, 2007 field view. It was agreed that, due to the extensive agenda, the group would meet at 9:00 a.m. at DelDOT. The meeting may extend until 4:00 p.m. to allow all the sites to be covered. Mr. Bailey expressed appreciation that the field view sites were provided to the agencies in advance.

#### **WRAPUP**

Mr. Hite concluded the meeting by reviewing upcoming public involvement activities and the proposed schedule for the agency and working group meetings. The agencies should expect to receive the pre-draft EIS for review and comment in early March.



## Memorandum of Meeting

**Date:** March 14, 2007

**Time:** 9:30 a.m. to 1:00 p.m.

**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE

**Topic:** Milford Area and Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III - DelDOT	Jeff Riegner – WR&A
Terry Fulmer – DelDOT	Karl Kratzer – WR&A
Michael Hahn – DelDOT	Susan Smith – WR&A
Ed Bonner – USACE	Joe Wutka – RK&K
Jim Butch – EPA	Eric Almquist – RK&K
Bob Zepp - USFWS	Justin Reel – RK&K
Tricia Arndt – DNREC	Andrew Bing – Kramer & Associates
Matt Bailey – DNREC	Erika Rush – Urban Engineers
Eileen Butler – DNREC	
Marcia Fox – DNREC	
Anne Love – DNREC	
Joanne Haughey – DNREC	
Gwen Davis - DESHPO	

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A meeting was held Wednesday, March 14, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to present information regarding public workshops and working group meetings, review issues associated with the Green and Purple alternatives in the Milford area, and discuss recent and upcoming natural resource field views in the Georgetown-South area.

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the agenda.



## **MILFORD AREA**

Mr. Hite reviewed the results of public workshops held on February 26 and 27. A total of 422 people attended both nights, with over 60 comment forms received to date. The comment period ends on March 16. So far, any east bypass alternative and the no-build alternative enjoy a similar level of public support. Several other suggestions were received as outlined in the presentation.

Mr. Hite also discussed the results of a Milford area working group meeting held on March 7. At that meeting, the project team presented all the alternatives and began a discussion of the merits of the Green and Purple alternatives before the meeting was cut short by inclement weather.

Jeff Riegner reviewed some slight shifts to the Green and Purple alternatives recommended by public workshop attendees to reduce residential impacts. Specifically, both the Green and Purple alternatives were shifted slightly south between US 113 and east of Greentop Road, and the Purple alternative was shifted slightly south between the Cedar Creek Mill Farm and Clendaniel Pond Road.

Joanne Haughey suggested that the Green and Purple alternatives be shifted slightly to avoid a headwater near Greentop. Ed Bonner and Eileen Butler suggested that isolated parcels be used as riparian buffers, mitigation, or green technology stormwater management. Gwen Davis commented that the SR 30 ramps on the Purple alternative are close to the Cedar Creek Mill Farm barns, and asked whether the shift placed the alternative within 600 feet of the old mill at Cubbage Pond; Mr. Riegner replied that it did not. Matt Bailey asked that wetland impact acreages be checked.

There was extensive discussion regarding the Green and Purple alternatives as summarized below.

- Ms. Davis said that the cemetery along the Green alternative may need to be delineated.
- Ms. Haughey asked that subaqueous lands be added to the matrix. Justin Reel said that the team will estimate subaqueous impacts for the Green and Purple alternatives.
- Terry Fulmer asked that half-size maps, including the Green and Purple shifts, be distributed to the agencies.
- Mr. Bonner asked about the need for each of the interchanges along the east bypass alternatives. Mr. Riegner explained that they provide connectivity to SR 1, SR 30, and existing US 113, serving existing traffic movements. Mr. Bonner suggested that be mentioned in the document.
- Ms. Davis noted that the Purple alternative is close to two historic properties, while Green is not. She indicated that she needs to visit the Cook house again in the field and re-examine the predictive model.
- Mr. Hite noted that Purple has fewer property impacts than Green. Eric Almquist added that Green impacts the Milford Housing Authority property, which is slated for development.



- Mr. Bonner indicated an initial preference for Purple due to the potential to save properties adjacent to Cabbage and Clendaniel Ponds from development. Mr. Riegner indicated that a portion of the shore of Cabbage Pond is already lined with homes, which diminishes somewhat the benefit of preserving adjacent properties.
- Ms. Haughey asked about the difference in stream quality impacts between Green and Purple. Mr. Reel said that Purple crosses a valley with a “nice mucky stream,” while Green crosses an impoundment on the Kee property. For this reason, Mr. Bailey said that Green is preferable from an environmental standpoint. Tricia Arndt added that Green is further from the ponds.
- Ms. Haughey asked whether noise impacts on birds were considered. The project team indicated that they were not.
- Ms. Fulmer asked whether the Brown alternative was “off the table.” Mr. Hite responded that although all alternatives are being carried through the DEIS, the agencies previously indicated that they preferred Green and Purple to Brown.
- Mr. Bonner suggested viewing the tributary to Cabbage Pond crossed by the Green and Purple alternatives. The team agreed to meet at the Milford Bonanza at 9:15 a.m. on Tuesday, March 20 for that field view. Karl Kratzer asked the agency members to inform him and Mr. Reel of their attendance by Friday, March 16.

Mr. Hite previewed several upcoming meetings, including working group meetings on March 21 and April 11 (since rescheduled for April 25) and the April 5 agency meeting. The agency representatives expressed concern about the pace of the schedule, and asked that the project team convey their concerns to others at DelDOT.

The project team distributed copies of the pre-Draft Environmental Impact Statement to the attendees for review. [Copies were sent to Bob Kleinburd and Kevin Magerr subsequent to the meeting.]

### **GEORGETOWN-SOUTH AREA**

Mr. Hite gave a brief overview of the public workshop held in Millsboro on March 12; a second workshop with the same information is scheduled for Georgetown on March 15. The focus of the workshops is the east-to-east connection between the Georgetown and Millsboro areas (the Dark Blue and Violet alternatives). The bulk of the comments indicated that the east-to-east alternatives should not be considered further, and that improvements (particularly in the Georgetown area) should be limited to the existing right of way.

Ms. Arndt asked whether the Yellow alternative is viable. Ms. Davis said that a few historic property eligibility issues remain to be resolved in the Georgetown area; the Millsboro-South area is still being reviewed. Mr. Riegner said that the Yellow alternative in Georgetown appears viable from an engineering standpoint because Georgetown has largely developed to the east side of existing US 113. Conversely, US 113 divides Millsboro in half, so there are constructability and community impact concerns that do not exist in Georgetown.



Mr. Kratzer provided a recap of the February 22 field view.

1. **Sheep Pen Ditch.** This site consisted of a mature Atlantic white cedar swamp. This is a high potential swamp pink habitat.
2. **Shoals Branch at Ingram Pond.** Some attendees indicated a preference for bridging the pond rather than impacting the wetlands downstream. The project team will evaluate whether such a bridge would constitute a 4(f) impact, as the pond is owned by the State and used for recreation.
3. **Iron Branch.** There was little comment on this area.
4. **Molly Field Road area.** This area was observed from the vans as an indication of why the Millsboro Green and Purple alternatives diverge so widely.
5. **South Fork of Pepper Creek.** This old regional ditch is at least eight feet deep and appears to have effectively drained the wetlands for a substantial distance on either side.
6. **South side of Indian River and Island Creek.** This area was inaccessible without an escort from the Indian River Power Plant, so it will be visited in the future. Ms. Davis indicated that the south bank of the river may exhibit the same significant archaeological potential as the north side. Mr. Bailey said that the surrounding area has an unusually diverse mix of tree species.
7. **Pepper Creek.** The attendees walked down a man-made embankment along a power line corridor just east of the potential creek crossing. It was suggested that the alternative be shifted slightly so it is closer to the power line. Mr. Bailey said that the illustrated RTE circles would likely not be greatly affected by the proposed alternative. Ms. Haughey asked that tidal wetlands be separated from nontidal wetlands in the matrix.
8. **Vines Creek.** The site is located immediately adjacent to the Frankford Elementary School, which caused concern for some agency representatives. This ditch has affected the adjacent wetlands, but not as substantially as the South Fork of Pepper Creek (see site 5 above). The project team committed to evaluating a shift that will move the alternative further from the school and reduce woodland impacts to the south.
9. **Vines Creek and tributary.** This site was not visited.
10. **Gray property.** The woods along the west side of US 113 south of the proposed SR 26 connector are not wet, which conflicts with the GIS mapping. The project team has shifted the proposed frontage road south of the connector even further south, utilizing much of existing Gum Tree Road. Mr. Almquist indicated that the properties along Gum Tree Road in this area will be assessed for National Register eligibility.



Mr. Kratzer then provided an overview of the March 13 field view, the purpose of which was to distinguish differences between the GIS wetlands and actual field conditions.

- The GIS is inaccurate in the area of Del Tech in Georgetown; the actual wetland area is substantially smaller.
- In the Shortly Road vicinity, the area furthest from existing US 113 is not wet, but is a good-quality hardwood forest. There will be a tradeoff between these forest impacts, which are associated with the Gold and Purple alternatives, and wetland impacts associated with the Blue and Brown alternatives closer to US 113.
- A “wildlife area” was observed near Asbury Road.
- Mr. Kratzer indicated that this field view resolved all outstanding issues regarding discrepancies between the GIS and field conditions.

#### **WRAPUP**

Mr. Hite provided a reminder of upcoming field views and meetings. Mr. Almquist reviewed the document schedule, asking that comments be provided by April 16 (earlier is better).



## Memorandum of Meeting

**Date:** April 5, 2007  
**Time:** 9:30 a.m. to 1:30 p.m.  
**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE  
**Topic:** Milford Area and Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III - DelDOT	Bill Hellmann – RK&K
Michael Hahn – DelDOT	Joe Wutka – RK&K
Bob Kleinburd – FHWA	Eric Almquist – RK&K
Ed Bonner – USACE	Justin Reel – RK&K
Jim Butch – EPA	Shilpa Mallem – RK&K
Kevin Magerr - EPA	Erika Rush – Urban Engineers
Matt Bailey – DNREC	Jeff Riegner – WR&A
Eileen Butler – DNREC	Todd Oliver, WR&A
Marcia Fox – DNREC	Karl Kratzer, WR&A
Anne Love – DNREC	Bob Kramer – Kramer & Associates
Joanne Haughey – DNREC	Ed Thomas – Kramer & Associates
Gwen Davis - DESHPO	Andrew Bing – Kramer & Associates

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A meeting was held Thursday, April 5, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to present information regarding recent working group and community meetings; review the Eastern Bypass alternatives for the Milford Area, including a review the results of the March 28, 2007 agency field view on the Brown Modified Alternative; and review the Georgetown-South and Millsboro-South ARDS.

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the agenda. Materials provided included a copy of the meeting's PowerPoint presentation.

### MILFORD AREA

Bob Kramer reviewed the results of the March 21 Working Group meeting. In general, there was very little support for the Western Bypass Alternatives, and considerable opposition to the On-Alignment Alternative. While there was considerable discussion about the East Bypass Alternatives, there was no consensus. Bob Kramer noted that there was some support for the No-Build Alternative, with the expectation that if Brown (or Brown Modified) is found to be not viable, support for the No-Build would increase. He further noted that if the majority of the community does not support the



Recommended Preferred Alternative, it is likely that the State elected officials will support the No-Build.

As a result, at the direction of Secretary Wicks, the Project Team has been tasked to work with the resource agencies to determine if there are modifications that can be made to the Brown Alternative in the Herring Branch area that would make that alternative acceptable.

Bill Hellmann and Justin Reel then reviewed criteria established on a similar, permitted project (the Intercounty Connector, or ICC, in Maryland) that could be applied to this Brown “Modified” Alternative:

- On the ICC, bridges were oriented east-west with a bridge width to vertical clearance ratio of 2:1, or less. Vegetation was considered to grow under the entire bridge width, resulting in only a temporary impact during construction. The Project Team is in the process of identifying and reviewing existing DelDOT bridges oriented east-west with a 2:1 ratio, as well as the vegetative conditions and type of bridges that meet this criteria. Gwen Davis noted that higher structures have greater visual impacts on surrounding resources, including historic architectural resources.
- A 12 foot open median between structures, oriented east-west, was determined to facilitate vegetation growth under the structure. Bill Hellmann noted that a wider median would improve sunlight conditions, but would also result in an overall larger out to out dimension. Matt Bailey asked if the ICC had data on the widths of medians. Bill Hellmann noted that the width varied from 34’ to 42’.
- The ICC had 60’ wide bridges. Bridge clearances greater than 30’ (2:1 bridge width to vertical clearance) were considered to have no permanent impact.
- Wetlands impacts under a bridge deck with less than 30’ vertical clearance, other than direct impacts for footings, were considered to be a conversion impact by the Maryland Department of the Environment – wooded to emergent. Requested mitigation in this instance was at a 1:1 ratio.

Based on these criteria, the Project Team developed the Brown Modified Alternative in the following ways:

- Reduced the new US 113 median to 12 feet from north of the railroad to existing US 113
- Shifted the 113 mainline to minimize wetland impacts at Herring Branch
- Replaced directional ramps to and from existing US 113 and new US 113 to and from the north with interchange ramps at Johnson Road
- Provided 25-foot bridge crossing clearance over Herring Branch and the two bridge crossings of Herring Branch tributaries/wetlands.



The group discussed the ICC criteria and the March 28 field view, where the resource agencies viewed the Modified Brown Alternative and the various wetlands associated with it. The emu farm area located south of Herring Branch was discussed as a possible mitigation area. Matt Bailey noted that there were some large trees in the emu farm property which he considered mature and dense, suggesting a good habitat for species such as Orioles and other neotropical migrants. He checked internally with DNREC staff, who confirmed that this habitat was unusual. As a result, he believed that it was good to maintain access to this area, and if grazing could be maintained this would also be beneficial. While these measures would encourage the area to be preserved, it would not, in his view, count as mitigation.

Matt Bailey asked if the ICC project reviewed the type of vegetation that grew under the existing structures. He was concerned about invasive species such as tree-of-heaven that, although they can be considered tree vegetation, would not provide the quality of habitat that exists in more undisturbed settings.

In the field, the agencies asked if the modifications made to the SR 1 and SR 30 ramps on Brown Modified could also be made on the Green and Purple Alternatives. Todd Oliver explained that while it was possible for Green (Green Modified) it was not possible for Purple due to the Purple Alternative's proximity to the National Register eligible Cedar Creek Mill Farm barns.

Gwen Davis noted that a cemetery has been found in the Brown Modified Alternative area. The cemetery is currently being reviewed for possible eligibility for the National Register of Historic Places. She further noted that, even if not protected as an eligible National Register resource, cemeteries are protected under state law. The boundaries of the cemetery, and whether bodies are actually buried there, have yet to be determined. Bill Hellmann noted that the alignment would be adjusted to avoid direct impact to this resource. Gwen Davis also noted that the summary of the March 28 field view with respect to cultural resources on page 41 of the presentation only reflects the views of the consultant. There are eight properties under review adjacent to the Brown Modified Alternative located at the crossing of Marshall Street.

Joanne Haughey expressed concern about supporting the Brown Modified Alternative for several reasons including its high cost, and because much could change between now and when the project is constructed. Joanne is concerned that if the Brown Modified Alternative is preferred, the tall, lengthy structures may be reviewed in the future and dropped from consideration because of high cost, even if the bridge is a commitment in the environmental document. Bill Hellmann stated that the project team would review the effect of using fill in the upland areas of the Herring Branch ./ emu farm area to try and reduce the cost.

Ed Bonner asked what would happen with upland areas in 20 years' time. Bob Kramer noted that if the no-build is identified as the preferred alternative, then future development may eventually result in an alignment similar to Brown. All other alignments will be filled with development and there would be not other reasonable choice. Ed asked if advanced acquisition of the mitigation area was possible; Bob Kleinburd responded that this was not possible, given recent court decisions regarding eminent domain. Bill Hellmann stated that he believed it may be possible, and that the mitigation package for US 301 at Ratledge Road may outline a method for carrying this out.



Matt Bailey stated that near the existing crossing of Old State Road along the Brown Modified Alternative, there is a mature stand of Atlantic White Cedar that may also provide habitat for swamp pink. Matt agrees that removing the existing Old State Road crossing/culvert at this location would be beneficial.

The agencies expressed concern that it seemed that Brown was being driven not by the public at large, but by a very few individuals with their own agendas.

Michael Hahn asked if the Project Team could elaborate on how cost was calculated. Costs were derived from SR 1 actual costs, with ROW cost information provided by DeIDOT Real Estate. Contingency was added comparable to that used on other projects, and a range was established by calculating a 10% increase and 10% decrease from the total.

Todd Oliver then reviewed the impacts of the Brown Modified, Green Modified and Purple Alternatives. He also noted that the additional wetland impacts found in the field view (approximately .4 acres) were reflected in the table's impacts numbers. The advantages and disadvantages of Brown Modified compared to previous Brown Alternatives, and the similarities and differences among Green Modified, Purple and Brown Modified were also discussed. It was noted that the current impact calculations assume that all areas "shadowed" by bridge structure are considered an impact – thus, the ICC method for impact calculations has not yet been used.

After discussion, it was agreed that the Project Team would revise the Modified Brown Alternative with measures that reduce cost, and calculate the responding impacts. As requested by Matt Bailey, the package will include comparative spanning costs and impacts. This package will be emailed to the agencies on April 11, with a conference call to discuss scheduled for Tuesday, April 17 at 1:30 p.m.

### **GEORGETOWN-SOUTH AREA**

Monroe Hite reviewed recent Georgetown Area meetings, including a public workshop on March 15 and a Working Group meeting on March 29. While there was little to no support for bypasses or the No-Build Alternative, there was considerable support for investing in existing Route 113. Mr. Hite noted that while there is some support for No Build, it is likely to increase if a refined On-Alignment Alternative that substantially reduces property impacts is not viable. He further noted that one could reasonably expect that State elected officials would support the No Build if the majority of the Georgetown South community does not support the Recommended Preferred Alternative.

Based on the comments received in the public process to date, the Project Team does not recommend that the East-to-East Alternatives (Dark Blue and Violet) be retained for detailed study. As a result of public comment, Secretary Wicks has directed the Project Team to give renewed attention to the On-Alignment Alternative. Secretary Wicks committed to the Bond Bill Committee at their March meeting that DeIDOT will maintain the safety and capacity of the limited access facility and make modifications to reduce property impacts.

Joanne Haughey asked whether the Georgetown Orange (East Bypass) alternative is also likely to be dropped if the Dark Blue and Violet East-to-East Alternatives are not being retained for detailed



study. Monroe Hite clarified that it would not be dropped, as the Orange has already been formally retained for detailed study, but the Dark Blue and Violet were not.

Andrew Bing clarified that the goal of the recent workshops in Georgetown and Millsboro-South was to introduce the new East-to-East alternatives. He felt that it was important to note that although the other alternatives were displayed, the comment forms were geared toward getting comment on the East-to-East Alternatives. He added that until the most recent meeting (March 29) the Georgetown Area Working Group was not very focused. However, they were very clear at the last meeting about their opposition to all bypass alternatives and the desire to improve the existing US 113 alignment.

Ed Bonner noted that the on-alignment alternative may not be as straightforward as it appears, citing potential 4(f) and Swamp Pink impacts.

The Project Team will conduct an additional Georgetown Area Working Group meeting April 19 and another on May 3 to review the alternatives, including a refined On-Alignment Alternative. Eileen Butler asked about the agenda for the April 19 Georgetown Working Group meeting. Monroe Hite indicated that based on the outcome of the previous meeting, the refined on-alignment alternative will be presented and it is likely the Working Group will want to make a recommendation.

### **MILLSBORO-SOUTH AREA**

Monroe Hite reviewed the public workshop comments from March 12 and Working Group comments from March 27. Gwen Davis questioned the preference for an East Bypass based on the number of comments in the table. Monroe Hite explained that the Project Team has not received many comment forms from the Millsboro Workshop, as it was focused on the new East-to-East alternatives.

Eileen Butler expressed concern about the impacts to the Stockley nature preserve and asked about the Working Group's stance on this issue. Andrew mentioned that members of the Working Group have voiced concern about the environmental impact. Eileen stated that the Project Team needs to notify the Working Group that a road cannot be legally constructed through a nature preserve as stipulated in the articles of dedication. Monroe Hite requested that the articles of dedication for the preserve be provided as soon as possible so that the Project Team could review them with respect to the alignments. Karl Kratzer asked Eileen Butler if any federal dollars have been contributed to establish the nature preserve; she replied that there has been no federal funding.

Matt Bailey asked the Project Team to clarify that all the retained alternatives impact the Cow Bridge Branch. Monroe Hite confirmed that is the case.

Matt Bailey asked why the Project Team indicated that there is no support for the Millsboro West Bypass alternatives but the table summary from the workshop indicates otherwise. Monroe clarified that Working Group has shown no support based on the latest Working Group meeting.

### **WRAPUP**

Mr. Hite concluded the meeting by reviewing upcoming agency, working group and public involvement activities.



## Memorandum of Meeting

**Date:** April 23, 2007  
**Time:** 9:30 a.m. to 1:30 p.m.  
**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE  
**Topic:** Milford Area and Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III - DelDOT	Todd Oliver – WR&A
Michael Hahn – DelDOT	Bill Hellmann – RK&K
Ed Bonner – USACE	Joe Wutka – RK&K
Jim Butch – EPA	Eric Almquist – RK&K
Tricia Arndt – DNREC	Justin Reel – RK&K
Matt Bailey – DNREC	Shilpa Mallem – RK&K
Eileen Butler – DNREC	Erika Rush – Urban Engineers
Joanne Haughey – DNREC	Bob Kramer – Kramer & Associates
Gwen Davis - DESHPO	Ed Thomas – Kramer & Associates
Jeff Riegner – WR&A	Andrew Bing – Kramer & Associates
Karl Kratzer – WR&A	

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A meeting was held Monday, April 23, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to review:

- Eastern Bypass alternatives for the Milford Area, including the most recent modifications to the Brown Alternative
- Modified On-Alignment Alternative in the Georgetown Area
- Millsboro-South ARDS

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the agenda. Materials provided included a copy of the meeting's PowerPoint presentation and minutes from the April 5, 2007 agency meeting.



## **MILFORD AREA**

Todd Oliver gave an update on the project team's study of vegetation growing under bridges. There are no bridges in Delaware that meet the criteria for a 2:1 bridge width to clearance ratio with an east-west orientation. The project team will attempt to identify additional Maryland bridges with a 2:1 bridge width to clearance ratio and an east-west orientation and conduct field reviews at those sites. Matt Bailey asked that the team look first at coastal plain habitats.

Mr. Oliver then presented further modifications to the Brown Alternative based on discussions at the April 5 agency meeting. Specifically, the horizontal alignment was shifted slightly to the north to avoid the National Register eligible Webb's Auto Repair on Marshall Street and the Metcalf cemetery west of Old State Road. This shift resulted in reduction of the length of the Old State Road/tributary bridge by 165 feet, a 0.2-acre reduction in wetland impacts, and about an acre increase in forest land impacts. Along this alignment, three options are being considered:

- Brown Modified 1 – One 2,370-foot structure spanning the entire Herring Branch wetland/forest land area
- Brown Modified 2 – One 230-foot structure and one 400-foot structure spanning only the Herring Branch wetland areas
- Brown Modified 3 – One 400-foot structure and one 800-foot structure spanning a majority of the Herring Branch wetland/forest land areas

Gwen Davis reminded the attendees that the eligibility determination for Webb's Auto Repair is conditional and that the actual boundaries of the Metcalf cemetery have not yet been determined.

The project team then reviewed the Milford area alternative matrices in the presentation handout and rolled out the east bypass alternative map, inviting comments and discussion.

Mr. Bailey asked whether a refined On-Alignment Alternative like that being considered in the Georgetown area will be presented in the Milford area. Jeff Riegner said that because constraints in Milford (extended sections of elevated US 113, public opposition, property impacts, potential 4(f), etc.) are fundamentally different than those in Georgetown, such an alternative is likely infeasible in the Milford area. Bob Kramer added that the Milford area Working Group rejected consideration of a refined On-Alignment Alternative.

Mr. Bailey asked whether the Brown horizontal alignment shift crossing Old State Road will affect more Atlantic White Cedar. Justin Reel replied that the new alignment may be slightly better, as it will probably impact fewer mature trees.

Jim Butch suggested shifting the Green Alternative to the north. Mr. Riegner said that such a shift was considered early in the process, but the Hearthstone Manor development, which is largely built, renders such a shift infeasible.

Ed Bonner commented that the Green Alternative is "by far" better than the Brown Alternative and that Purple has greater impacts than Green. He expressed appreciation for the project team's attempts to make the Brown Alternative work to satisfy community concerns, but emphasized that Brown does not appear to solve a pressing social or cultural issue that could balance its increased impacts to the



natural environment. Joanne Haughey and Tricia Arndt voiced their agreement that Green has fewer natural resource impacts than the other alternatives.

Mr. Bonner added that the feasibility of the Purple Alternative depends on bridge height, profiles, and what type of mitigation package would be proposed. Mr. Bailey expressed his concern about Purple's resource impacts on wooded wetlands near SR 30.

Mr. Hite showed the location of the Greentop community, which is predominantly and historically African-American. He said that many residents of the community have indicated that they want what's best for the area and have not advocated against the Green and Purple Alternatives. Some other members of the greater Lincoln area, however, have cited impacts to Greentop as an important issue in opposing Green and Purple. The project team has located the Green and Purple Alternatives to minimize the number of Greentop homes to be acquired and to eliminate direct impacts to the community's two churches. Eric Almquist confirmed that with respect to Environmental Justice, there is no disproportionate impact to minority or low-income groups.

Mr. Butch asked whether the No-Build Alternative has any support from the Working Group or public. The project team replied that a majority of the Working Group may support No-Build at the next meeting on April 25.

Mr. Hite commented that Secretaries Wicks and Hughes spoke by telephone on April 20 and that Secretary Wicks will brief area legislators on May 3.

In conclusion, the resource agencies believe the Green Alternative is the Least Environmentally Damaging Alternative. They have not yet seen sufficient social or cultural effects to offset the negative environmental impacts of the Brown Alternative.

Mr. Hite said it is DelDOT's intent to announce a recommended preferred alternative in May, publish the Draft Environmental Impact Statement in August, and conduct a public hearing in October. To meet that schedule, the project team will distribute the final DEIS working draft on June 8, with comments due by July 9.

## **GEORGETOWN AREA**

Mr. Hite reviewed comments received from the March 15 public workshop held in Georgetown. Of the 508 comment forms received, 391 opposed all bypass alternatives. No-Build and On-Alignment received the most support. As a result of the public workshop, the East-to-East Alternatives will not be retained for detailed study.

Based on public input, Secretary Wicks directed the project team to refine the On-Alignment Alternative for presentation to the Working Group and the agencies. At its April 19 meeting, the Georgetown area Working Group had a generally positive response to the refined On-Alignment Alternative, which consists of a continuous median barrier to eliminate left turns and cross traffic, retention of most existing driveways as right turns in and out, and seven grade separations with ramps to allow for local access and U-turns. Some Working Group members did express concern about



property impacts associated with the grade separations, and the project team is working on adjustments to address those concerns.

Mr. Oliver then presented the refined On-Alignment Alternative to the agencies in detail and invited comments.

Eileen Butler asked how traffic exiting Wilson Hill Road would go north. Mr. Oliver replied that drivers would turn right to go south on US 113, then turn around at the SR 18/SR 404 interchange.

Ms. Butler asked whether stormwater management was considered. Mr. Oliver and Mr. Riegner said that although the alternative is just being developed, there are a number of cleared upland parcels along the highway that could be considered for stormwater management sites.

Ms. Arndt asked whether new entrances along US 113 would be prohibited. Mr. Hite said that although new entrances might not be categorically denied, the Department will attempt to reduce the number of new access points as much as possible. Mr. Oliver clarified that all properties will retain right-in, right-out access **except** those acquired by the project or in close proximity to ramps.

Mr. Oliver said that the SR 18/SR 404 area and the US 9 area are being re-evaluated to improve operations and reduce property impacts at the Working Group's request. He explained how access to the existing Georgetown Plaza shopping center at US 9 would work; most of the center would be retained, although the pad sites along US 113 may be impacted.

Mr. Bailey said that east-west travel has long been mentioned as a concern in Georgetown and asked how it is being addressed with the refined On-Alignment Alternative. Mr. Riegner explained that east-west traffic using SR 18/SR 404 and US 9 west of Georgetown would be directed to Arrow Safety Road, which would connect to relocated Park Avenue to form a two-lane east-west "bypass" of Georgetown.

In response to a question, Mr. Hite illustrated how a frontage road would work with the pending development of the Short farm, which is located on the east side of US 113 south of US 9.

Ms. Davis indicated that the boundaries of the potential Melvin Joseph Historic District are not shown correctly. The boundary should extend across US 113 to include two garages on the east side of the highway, although the highway is not a contributing element. Mr. Almquist confirmed that there should be no 4(f) impact as long as there is no direct impact to contributing elements.

Ms. Arndt asked whether the elevation of Governor Stockley Road west of US 113 would impact the operation of the Melvin Joseph runway. Mr. Oliver said that adjacent to the runway, there should be very little change in the elevation of the road. Mr. Hite added that the conformity of the existing runway to existing regulations is being studied.

Mr. Bonner suggested that stormwater management be listed as a disadvantage of the refined On-Alignment Alternative and that innovative approaches be explored.

Ms. Davis indicated that the advantage "reduces impact to historic resources" be revised to read "reduces **direct** impacts to historic resources."



Mr. Hite concluded the discussion of the Georgetown area by outlining the next steps: a Working Group meeting on May 3 and the next resource agency on May 10. It is anticipated that a recommended preferred alternative for the Georgetown area (not Millsboro-South) will be announced in May.

### **MILLSBORO-SOUTH AREA**

Mr. Hite reviewed comments received from the March 12 public workshop held in Millsboro. Of the 85 comment forms received, there was no clear consensus on the community's preference for an alternative. However, comments opposing the East-to-East Alternatives outnumbered those in favor by more than two to one.

In response to concerns about the Stockley Center area raised by Ms. Butler during previous agency meetings, Mr. Hite presented a map showing the preliminary east bypass alternatives originally considered for the Millsboro area. The map showed the "B6" alternative, which Joe Wutka indicated was not retained for detailed study in fall 2005 due to environmental concerns. He said that the project team may reconsider B6 due to the concerns expressed about the Stockley Center nature preserve and the community's and Working Group's general preference for an east bypass.

Mr. Bonner suggested that if the B6 alternative is considered further, a high bridge be provided over Cow Bridge Branch as has been considered for the Milford area Brown Alternative. Mr. Bailey also said that the area should be studied for Swamp Pink.

Ms. Haughey asked whether the Yellow (On-Alignment) Alternative is viable. Mr. Riegner said that construction feasibility is a challenge given the relatively densely developed nature of Millsboro as compared to other towns along US 113. Mr. Kramer added that the connection to SR 24 from the north is critical to the public; traffic forecasts support this assertion.

Ms. Davis indicated that the National Register eligibility of on-alignment properties should be determined by the end of May. She also asked whether cultural resource impacts along B6 have been studied; Mr. Almquist replied that they have not.

Mr. Bonner and Mr. Butch suggested a slight shift of B6 to the west on Mountaire property to "cut the corner" and potentially reduce impacts. Mr. Bonner asked that Mountaire's spray irrigation limits be illustrated.

The potential land use issues associated with an interchange at SR 30 were discussed. Mr. Wutka illustrated the great extent of existing and approved development in the vicinity of the proposed SR 30 interchange, stating that much of the development that could be spurred by such an interchange is already in place. Mr. Butch added that he believes rapid growth will continue due to Sussex County's low taxes, and that preserving land for an interchange is the responsible thing to do with respect to long-term planning. Mr. Hite committed to looking into the issue in more detail.

Ms. Butler thanked the project team for acknowledging DNREC's concerns with respect to the Cow Bridge Branch preserve.



Mr. Hite concluded the discussion of the Millsboro-South area by outlining the next steps: a Working Group meeting on May 1 [*later cancelled*], the next resource agency on May 10, and an additional Working Group meeting on May 29.



## Memorandum of Meeting

**Date:** May 10, 2007  
**Time:** 9:30 a.m. to 2:00 p.m.  
**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE  
**Topic:** Milford Area and Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III – DelDOT	Karl Kratzer – WR&A
Terry Fulmer – DelDOT	Todd Oliver – WR&A
David Clarke – DelDOT	Susan Smith – WR&A
Bob Kleinburd – FHWA	Bill Hellmann – RK&K
Ed Bonner – USACE	Joe Wutka – RK&K
Jim Butch – EPA	Eric Almquist – RK&K
Kevin Magerr – EPA	Justin Reel – RK&K
Tricia Arndt – DNREC	Shilpa Mallem – RK&K
Eileen Butler – DNREC	Erika Rush – Urban Engineers
Anne Love – DNREC	Bob Kramer – Kramer & Associates
Gwen Davis – DESHPO	Ed Thomas – Kramer & Associates
Bryan Hall – OSPC	Andrew Bing – Kramer & Associates
Jeff Riegner – WR&A	

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A meeting was held Thursday, May 10, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to review:

- Results of the April 25 Milford area Working Group meeting
- Modified On-Alignment Alternative in the Georgetown area
- Millsboro-South area ARDS
- Next steps for the Georgetown-South area ARDS and DEIS

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the materials provided to the attendees.



## **MILFORD AREA**

Todd Oliver gave an abbreviated version of the presentation given to the Milford Area Working Group on April 25, 2007. The project team helped the Working Group members understand what the No-Build Alternative means and what its consequences will likely be. The modifications to the Green and Brown Alternatives presented to the agencies on April 23 were shown to the Working Group as well. Two motions were made and voted on by the Working Group. Those motions and votes, including absentee ballots, were as follows:

- Recommend the No-Build Alternative with four conditions (previously-proposed grade separations on SR 1, improved signal timing on US 113, and signing directing beach traffic to use SR 1): 15 for, 11 against, one abstention
- Recommend an East Bypass Alternative (unspecified): 11 for, 15 against, one abstention

Jim Butch said that the vote was not a strong endorsement for either position. Bob Kramer agreed, saying that because guidelines adopted by the Working Group at its second meeting required a 75% “super majority” for a recommendation, the Working Group effectively did not make a recommendation.

Eileen Butler inquired about the strength of the Working Group’s recommendation (or lack thereof). Mr. Hite said that the Working Group is part of the input considered, in addition to the public and the resource agencies. Bob Kleinburd added that FHWA considers such groups a subset of public opinion.

Kevin Magerr asked why the Working Group presentation didn’t specifically address purpose and need with respect to the No-Build Alternative. Bill Hellmann replied that purpose and need has been heavily emphasized at past Working Group meetings and public workshops.

The wording of the disadvantages of the Yellow Alternative was discussed at length. Mr. Kleinburd indicated that 4(f) is not a fatal flaw for Federal funding and that such wording should be removed. He believes that it is too early to determine whether any of the bypass alternatives are truly feasible and prudent 4(f) avoidance alternatives. Gwen Davis reminded the attendees that cultural resource impacts extend beyond Section 4(f) and must be considered in the preferred alternative recommendation as well. Eric Almquist added that not only do direct impacts to cultural resources remain a serious obstacle for Yellow, but the public and Working Group have expressed many other concerns about the alternative. Mr. Oliver confirmed that sufficient engineering has been performed to confirm that 4(f) avoidance is not possible for the Yellow Alternative. Mr. Almquist asked Mr. Kleinburd’s opinion of how public response is weighed in the decision-making process. Mr. Kleinburd replied that FHWA must consider all factors, and that he will not be in a position to make a decision until circulation of the DEIS and the public hearing. As long as DelDOT follows the process correctly, FHWA will support DelDOT’s recommendation.

Mr. Hite presented the upcoming schedule for the Milford area. The final working DEIS will be provided to the agencies on June 8; comments are needed by July 9. He reported that he and Secretary Wicks met with several elected officials over the last two weeks, and that those in the Milford area continue to have strong reservations about the bypass alternatives because funding will not be



available immediately to acquire right of way. Mr. Hite and Secretary Wicks will meet with Governor Minner on Tuesday, May 15 to provide an overview of the entire US 113 North/South Study and to discuss the Milford area alternatives in some detail.

## **GEORGETOWN AREA**

Mr. Oliver provided a summary of the May 3, 2007 Georgetown Area Working Group meeting. The project team presented an update of the refined On-Alignment Alternative. Two motions were made and voted on by the Working Group. Those motions and votes, including absentee ballots, were as follows:

- Recommend eliminating all bypass alternatives from consideration: 20 for, four against, two abstentions\*
- Recommend the refined On-Alignment Alternative: 23 for, one against, two abstentions\*

\* At the time of the agency meeting, three Working Group members had not submitted a vote.

Because a 75% “super majority” exists for the refined On-Alignment Alternative motion, it constitutes a formal recommendation of the Working Group. Jeff Riegner added that the positions both motions represent were supported by hundreds of members of the public at workshops held in March.

Mr. Oliver then reviewed changes to the refined On-Alignment Alternative made at the request of the Working Group during its April 19 meeting and presented to the group at the May 3 meeting. Grade separations have been added at either end of the Georgetown area at the Working Group’s request to shorten travel distance for U-turns and provide better local access.

- **Wilson Road:** Two options were shown: one retains Wilson Road on its existing alignment and provides a trumpet interchange at US 113, impacting 11 residences. The other shifts Wilson Road to the north, improving the curves at the existing railroad crossing and reducing relocations to five. However, the second option impacts a State Resource Area and GIS-mapped wetlands. Although Karl Kratzer indicated this area has likely been drained and is therefore not a wetland, agency concurrence has not been received yet. Mr. Oliver said that the impact matrix assumes this area is wet.
- **SR 18/SR 404:** Modifications were made to improve operations at this high-volume location. Bryan Hall cautioned that the Town of Georgetown is concerned about the two-lane “bottleneck” on SR 18/SR 404 west of US 113, especially considering that a substantial amount of development is proposed along the service road accessing Wal-Mart.
- **US 9:** This is the only location where US 113 is proposed to pass over the side street; National Register eligible properties are a concern. Ed Bonner said that because construction of this magnitude is likely to adversely affect traffic, environmental impacts along alternative routes may need to be explored. Mr. Hite and Mr. Riegner explained that improvements will



likely be staged to minimize traffic impact during construction: the elevated northbound lanes will be built in the median, and the corresponding southbound lanes will be built west of the existing right of way. Sediment control and stormwater management facilities are typically the first phase of such a project.

- **Arrow Safety Road:** The only issue expressed by the Working Group at this location was the proximity of the future signal at Arrow Safety Road and South Bedford Street to the proposed offramp. This distance is 2,100 feet, which is substantially more than is found at many other interchanges.
- **South Bedford Street:** Mr. Oliver illustrated modifications that substantially reduce property impacts, including direct impact to DeIDOT's South District office building. Mr. Kratzer added that substantial time was spent in the field reviewing wetlands behind State Police Troop 4, and that the proposed improvements avoid impacts to this area.
- **Speedway Road:** Mr. Hite related that this area is of concern due to impacts to the Seacoast Speedway. Mr. Hall cited a group of citizens that have expressed concern about impacts to the speedway and asked why the property was not determined eligible for the National Register. Ms. Davis said that for a property to be recommended eligible, both significance and integrity are needed. Although the speedway may be considered to be significant from a historic point of view, it is the opinion of SHPO and DeIDOT that the site lacks integrity because many later-period additions exist. Mr. Oliver added that impacts to the speedway are only being considered to avoid impacting several homes on the opposite side of Speedway Road. Mr. Hite added that the property has been proposed for development for some time; Mr. Hall confirmed that there is an active PLUS application for the site.
- **Governor Stockley Road:** Mr. Oliver said that the potential Melvin Joseph Historic District boundary on the mapping was revised based on input from SHPO and DeIDOT. It includes the entire construction company property on the west side of US 113, the two garages on the east side, and US 113 in between (as a non-contributing element). Modifications were shown to avoid direct impacts to eligible properties, minimize impacts to natural resources, and ensure appropriate geometry and operations. There was subsequent discussion regarding how impacts to natural and cultural resources are balanced. In response to Tricia Arndt's question, Mr. Oliver said that the number of relocations is similar for the original and revised interchange configurations.
- **Piney Grove Road:** This grade separation was added at the Working Group's request to provide a turnaround north of SR 20 and to improve access to the new Sussex Central High School. Ms. Butler asked why the southbound onramp is so long; Mr. Oliver replied that the alignment is necessary to provide adequate horizontal and vertical geometry, and that the woods on the west side of US 113 in this area have been cleared.

Mr. Oliver then compared preliminary impacts for the refined On-Alignment Alternative and the Alternatives Retained for Detailed Study (ARDS), shown on page 40 of the presentation handout. The six acres of wetland impact for the refined On-Alignment Alternative assume the west side of US 113 at the Wilson Road grade separation is wet, which field studies have indicated may not be the case. Terry Fulmer asked whether the refined On-Alignment Alternative avoids direct impacts to historic



properties. Mr. Riegner responded that all currently identified National Register eligible properties have been avoided. However, there may be other properties brought into more detailed study with the introduction of the refined alternative, so it is premature to say that there will definitely be no direct impacts. Mr. Oliver added that of the 164 property impacts identified, only about 60 will be acquisitions. Ms. Butler expressed her appreciation for the reduced resource impact of the refined On-Alignment Alternative.

Mr. Oliver called the group's attention to the distributed maps illustrating Waters of the U.S. and subaqueous lands impacts for the alternatives in the Georgetown area. Justin Reel said that the Waters of the U.S. map shows a good preliminary approximation of USACE jurisdiction, while the subaqueous lands map, based on 1:12000 USGS maps, approximate state jurisdiction. Ms. Arndt cautioned that more subaqueous lands may be added to the USGS information based on field review.

Mr. Kratzer indicated that preliminary Waters of the U.S. impacts are measured in the tens of thousands of linear feet, which indicates a substantial impact. However, the majority of those impacts are to roadside and agricultural ditches, which typically do not have the same habitat value as natural streams and regional tax ditches. He asked the agency representatives for their thoughts on how the Waters of the U.S. impacts should be illustrated to help the public better understand these issues. Mr. Bonner suggested that the Waters be broken down by function, with possible categories including roadside ditches, agricultural ditches, regional tax ditches, and natural streams. Mr. Butch thought this was a reasonable approach. Mr. Bonner added that the environmental document should clearly explain the criteria used to classify the Waters.

Mr. Hite outlined the next steps for the Georgetown area, which include a recommended preferred alternative in May, circulation of the DEIS in late 2007, and public hearings in early 2008. Ms. Davis stated that there will not be as many cultural resource data available to inform the recommendation of a preferred alternative as natural resource data.

### **MILLSBORO-SOUTH AREA**

Mr. Oliver illustrated the Millsboro-South area ARDS by color, reminding the attendees that all include a relocation of SR 54 north of Selbyville. The east bypass and on-alignment alternatives include two-lane connectors to SR 24 northeast of Millsboro and to SR 26 on the south edge of Dagsboro. Ms. Butler again expressed concern that all build alternatives impact the nature preserve along Cow Bridge Branch.

To illustrate a possible way to address that concern, Joe Wutka rolled out an overall east bypass map for the Millsboro-South area, illustrating the former preliminary B6 alternative discussed at the last agency meeting. Mr. Wutka showed Mountaire's property boundaries and those of Sussex County to the north; both are actively used for spray irrigation. He illustrated the realignment of B6 requested at the last meeting to "cut the corner" northwest of Swan Creek. This adjustment appears to result in a longer crossing of Swan Creek and more impact to non-farmed forest land. Mr. Wutka confirmed that moving the alignment slightly southwest into fields adjacent to that forest land would result in a much longer Swan Creek crossing. Mr. Bonner suggested that tree farms be called out in the document so readers can understand their temporary nature. Ms. Butler asked whether the B6 alignment could be shifted even farther north to avoid potential rare, threatened and endangered (RTE) species areas. Mr.



Wutka indicated that although some room may be available for alignment adjustments, the area is somewhat constrained by Morris Mill Pond and existing homes.

Ms. Butler asked whether B6 will be added to the ARDS. Mr. Hite said the project team is still evaluating options. The team acknowledges that the natural area is a significant issue, but there are other resources to be considered as well. There are substantial state restrictions on the land, but it is generally understood that the natural area is not a wildlife refuge subject to Section 4(f).

Farther south, Mr. Wutka illustrated adjustments made to the east bypass alternatives south of the Indian River in the Pepper Creek area. He illustrated a shift to the west just south of Pepper Creek, avoiding a new electric substation and the Town of Dagsboro's spray irrigation fields and reducing impacts at Vines Creek. This shift was made based on public workshop and agency field view comments. He also illustrated potential interchange options at SR 26 and SR 20: a split diamond, a conventional diamond, a modified cloverleaf, and a single-point urban interchange. The project team believes the split diamond best addresses traffic operations.

Ms. Davis provided some input regarding archaeology. She cautioned that if additional land is purchased to "mitigate" for impacts to existing spray fields, it must be considered in the environmental document. She also suggested that the project team undertake coordination with the Native American tribes now. David Clarke believes impacts to archaeological resources on either the east or west bypass alternatives should be "mitigatable," and DeIDOT and SHPO agree that detailed field work is not necessary at this time. Mr. Kratzer asked Ms. Davis whether NRG performed an evaluation for its new substation on the south side of the Indian River (FERC would be the lead agency). She didn't know, but will check with Joan Larrivee of her office.

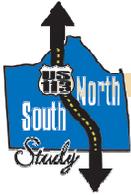
Mr. Hite outlined next steps in the Millsboro-South area. He reminded the attendees that the next agency meeting, to be held June 20, will be at DeIDOT's Dover offices. Mr. Bonner asked Mr. Kratzer and Mr. Reel to identify any remaining field view sites, such as the reconfigured Wilson Road grade separation, as soon as possible. The project team will do so and will invite all agencies to participate. Mr. Hite said the following agency meeting will be held either the week of July 16 or the week of July 23, and that subsequent meeting dates in August and September will be determined at a later date.

### **GEORGETOWN-SOUTH AREA ARDS AND DEIS**

Given the direction toward a refined On-Alignment Alternative in the Georgetown area, Mr. Hite reported that the project team discussed documentation options with Mr. Kleinburd. The outcome of that meeting was the potential to reissue the ARDS document, resulting in the dropping of all bypass alternatives in the Georgetown area at the ARDS stage. (All eleven ARDS in the Millsboro-South area would remain under consideration.) Ms. Fulmer asked whether the Georgetown area would then be downscoped to an environmental assessment. Mr. Hite indicated that FHWA would rather not rescind the Notice of Intent for the Georgetown-South area, and Mr. Kleinburd agreed. In response to Ms. Davis's question, Mr. Kleinburd said that one build alternative, in addition to the no-build alternative, would offer sufficient choice in the environmental document. Mr. Bonner said it should be made clear why this approach is being pursued in the Georgetown area and not elsewhere;



differences in property and resource constraints should be clearly identified. In general, there was no objection to this documentation approach.



## Memorandum of Meeting

**Date:** July 17, 2007  
**Time:** 9:30 a.m. to 12:00 p.m.  
**Location:** DelDOT Canal District - Basement Conference Room, Bear, DE  
**Topic:** Georgetown-South Area Alternatives

**Attendees:**

Monroe Hite, III – DelDOT	Jeff Riegner – WR&A
Terry Fulmer – DelDOT	Karl Kratzer – WR&A
Michael Hahn – DelDOT	Susan Smith – WR&A
David Clarke – DelDOT	Bill Hellmann – RK&K
Bob Kleinburd – FHWA	Joe Wutka – RK&K
Ed Bonner – USACE	Eric Almquist – RK&K
Kevin Magerr – EPA	Justin Reel – RK&K
Tricia Arndt – DNREC	Shilpa Mallem – RK&K
Matt Bailey – DNREC	Lisa C. Jones – RK&K
Eileen Butler – DNREC	Erika Rush – Urban Engineers
Marcia Fox – DNREC	Ed Thomas – Kramer & Associates
Joanne Haughey – DNREC	Andrew Bing – Kramer & Associates
Anne Love – DNREC	
Gwen Davis – DESHPO	
Bryan Hall – OSPC	

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A meeting was held Tuesday, July 17, 2007 to continue discussions with the resource agencies about the US 113 North/South Study and the Alternatives Retained for Detailed Study (ARDS). The focus of the meeting was to:

- Review the Millsboro-South area ARDS
- Provide an update on the Georgetown-South area DEIS and revised ARDS document
- Provide an overall schedule update

### INTRODUCTION

Monroe Hite, III welcomed the group, thanked everyone for their attendance, and reviewed the materials provided to the attendees. He noted that Lawrence Klepner is working on scheduling Section 4(f) training.



## MILLSBORO-SOUTH AREA ARDS

Mr. Hite said that the project team has been working diligently since the June 20, 2007 field view to refine the Millsboro east bypass alternatives between US 113 and SR 24. That area will be the focus of today's discussion. He introduced Joe Wutka to review all the ARDS in the area.

Mr. Wutka indicated that based on field view comments received on June 20, the B5 (aqua) alternative is a "non-starter" from an agency perspective. With that in mind, the team's goal over the last four weeks has been to address impacts associated with the B4 (blue) alternative, including impact to the Stockley nature preserve and fragmentation of forested habitat. Four B4 options were developed:

- **Option 1** is generally similar to the original B4 alignment, but is shifted slightly south to reduce impacts to the Stockley property. This option will likely require the full acquisition of the proposed Sweetwater Point development and may raise environmental justice concerns due to impact to the community along Bethesda Road.
- **Option 2** is relocated south to the neck between Mirey Branch and Sheep Pen Ditch. This option reduces impact to the Stockley nature preserve to less than an acre, but still has some impact to the Bethesda Road community. The option would impact a privately-owned State Resource Area on the neck that has been the site of some recent land disturbance.

Eileen Butler said that the state owns 44 of the 49 proposed lots in Sweetwater Point, including the point itself. She said the developer has known of the state's ownership claim since October 2005 and that they met on June 25, 2007 to force the developer to stop cutting understory vegetation on the land. The project team indicated that all nature preserve impact numbers in the meeting handouts are based on previously-assumed private ownership of Sweetwater Point. Ms. Butler agreed to send Mr. Hite DNREC's documentation regarding property ownership.

- **Option 3** is shifted even further south between US 113 and Bethesda Road to eliminate direct impact to the Bethesda Road community. Impacts to the Stockley nature preserve and natural resources in the Cow Bridge Branch area are similar to Option 2. However, Option 3 adds a crossing of Sheep Pen Ditch, which Matt Bailey noted is important habitat. The option also impacts the potential Patriots Landing development, which Bryan Hall said is seeking annexation and "pre-approvals" from the Town of Millsboro.
- **Option 4** is the furthest south option considered. It essentially avoids the wooded portions of Sheep Pen Ditch, Mirey Branch, and Cow Bridge Branch, instead incorporating two open water crossings at the headwaters of Millsboro Pond. This alternative has no direct impacts to the Stockley nature preserve (as defined by tax records) or the Bethesda Road community. However, it does have slightly greater State Resource Area impacts and more impact to Patriots Landing.



Mr. Wutka presented the engineering/socio-economic matrix and Justin Reel the natural resource matrix. Mr. Reel noted the following comparisons:

- B4 options 2 and 4 have the lowest impacts to Waters of the United States.
- B4 option 4 has only one new stream crossing in exchange for the longest open water crossing(s).
- B6 (not retained for detailed study) has about three times the wetland impacts as the best B4 options.
- The B4 options and B6 option 1 cross Swan Creek at a lower-quality location than B6.
- B4 option 4 and B6 option 1 have the lowest forest impacts; both impact primarily natural forest rather than managed woodlands.
- The only known impact to Federally listed species is a Swamp Pink location along both B6 options. Mr. Bailey said that Swamp Pink was found here in 1989 but not located during followup visits in 1995 and 2003, so this should be considered a “historic occurrence.”

There was extensive discussion regarding ownership of the Sweetwater Point parcels. Ms. Butler says the Articles of Dedication for the nature preserve incorporate the bulk of Sweetwater Point in state ownership. Mr. Hite said the developer, Peter O’Rourke, has asserted his ownership based on multiple title searches. He has proceeded with the development plan accordingly, having received preliminary approval and requesting a DelDOT entrance permit. Mr. Hall said it is not uncommon to find discrepancies related to ownership of State nature preserves. He said that, based on precedent from similar cases in Sussex County, it would likely take at least a year or two to formally resolve the issue. Ms. Butler said that if the property is determined to be privately owned, DNREC will move to purchase it.

Mr. Reel asked the agency representatives whether these options make sense given what they’ve seen in the field.

Ms. Butler provided a list of state rare species found along Cow Bridge Branch, which was prepared at Secretary Hughes’ request. She said that Kit Heckscher, state zoologist, has called this site “an ecological gem.” This appears to apply to all potential crossings of Cow Bridge Branch south of Morris Mill Road. Seeking an opportunity to protect habitat and meet transportation needs, Secretary Hughes will tour the site later this summer.

Gwen Davis and David Clarke noted that there is likely a high potential for archaeological resources along Cow Bridge Branch as well.

Mr. Hite reminded the attendees that to address existing east-west concerns, all of the build alternatives in the Millsboro area impact the Cow Bridge Branch valley. He also said that strongly-worded comments from the Georgetown working group and the public indicate that B6 would create a similar public outcry as the previously-considered east-to-east alternatives.



The attendees then discussed what other solutions might solve east-west transportation challenges in Millsboro. As one suggestion, Ms. Butler asked whether Millsboro Pond might be spanned. Mr. Hall said that although the Town has owned the pond since 1976, there have been land disputes since then. Twelve private owners have successfully challenged the Town's claim to the pond; they now own to the center of the old stream channel. He cautioned that similar disputes may arise if an open water crossing is proposed.

Mr. Wutka asked Ms. Butler if impacts to state rare species would be alleviated by crossing the pond south of Sweetwater Point. She said that she would find out from DNREC staff. Karl Kratzer further requested a map showing the range of each of the species in question throughout the study area indicating which species are dependent on wetlands and uplands.

Mr. Hite asked for other agency comments. Bob Kleinburd said that agencies need to give enough information to Secretary Wicks so she can make an informed decision; permitting is "a side issue." Kevin Magerr said that if the natural resource issues along Cow Bridge Branch are too substantial, other alternatives may need to be considered. Mr. Bailey and Ms. Butler added that Cow Bridge Branch may receive national attention for its habitat.

Ms. Davis asked whether options such as upgrading existing roads could be considered in lieu of a limited access highway. Jeff Riegner said that upgrading the existing roadway network is just not sufficient to address transportation needs resulting from the rapid growth of towns in the US 113 corridor.

Ed Bonner suggested that DNREC's zoologist examine Swan Creek as well as Cow Bridge Branch. Mr. Bailey will send Mr. Heckscher the right of entry letter to allow that field work to take place, and Ms. Butler will advise Mr. Hite when the field work is scheduled to occur. Mr. Magerr asked whether Mr. Heckscher could attend the next agency meeting to provide more detailed information. She will check.

### **GEORGETOWN-SOUTH AREA DEIS AND REVISED ARDS DOCUMENT**

Mr. Kratzer said that fewer pre-draft submittals will be made for the Georgetown-South area due to the limited number of comments received on the Milford area pre-draft documents. The original intent was to circulate the first pre-draft in July. However, due to the number of issues remaining to be resolved, that schedule is in flux.

Mr. Hite announced the distribution of the revised ARDS document for the Georgetown-South area, which Mr. Riegner handed out. He indicated that the only material change is in the Georgetown area alternatives, which have been reduced to one build alternative (the Refined On-Alignment alternative) and the no-build. Mr. Hite asked the agency representatives to provide him comments by September 6.



### **OTHER ISSUES**

Mr. Hite reviewed the Bond Bill's epilogue language regarding the Milford area with the agency representatives and indicated that DelDOT is deciding how to proceed. Ms. Butler asked whether the General Assembly's direction will reopen the Milford west bypass alternatives for consideration. Mr. Hite replied that DelDOT has not determined yet how to proceed. The agencies will be notified when a potential course of action has been identified.

It was agreed that the next agency meeting will be held Tuesday, September 25, 2007 at 9:30 a.m. in DelDOT's Bear office.



## Memorandum of Meeting

**Date:** January 13, 2009  
**Time:** 9:30 a.m.  
**Location:** DeLDOT Canal District Office, Bear, DE  
**Topic:** US 113 North/South Study Status Update

**Attendees (for the US 113 portion of the meeting):**

Ed Bonner – USACE	Monroe Hite, III – DeLDOT
Jim Butch – EPA	Terry Fulmer – DeLDOT
Nick Blendy – FHWA	Michael Hahn – DeLDOT
Gwen Davis – DE SHPO	
Bryan Hall – OSPC	Jeff Riegner – WR&A
Joanne Lee – DNREC (WSLS)	Karl Kratzer – WR&A
Milton Melendez – DDA	Joe Wutka – RK&K
	Justin Reel – RK&K
	Shilpa Mallem – RK&K
	Ed Thomas – KA
	Erika Rush – Urban Engineers

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A meeting was held Tuesday, January 13, 2009 to continue discussions with the resource agencies about the US 113 North/South Study. This was part of a larger meeting during which other projects were discussed with the agencies; these minutes reflect only the US 113 discussion.

The focus of the US 113 portion of the meeting was to:

- Review and distribute the draft Environmental Assessment for the Ellendale area
- Review the status of the Georgetown area, including the recommended preferred alternative
- Summarize discussions to date for the Millsboro-South area in preparation for detailed discussions of the alternatives at subsequent meetings



## **INTRODUCTION**

Monroe Hite, III welcomed the group, thanked everyone for their attendance, reviewed the agenda, and provided the following materials to the attendees:

- Meeting PowerPoint presentation
- Draft minutes from the October 23, 2008 agency meeting
- Draft Environmental Assessment for the Ellendale area

## **ELLENDALE AREA**

Mr. Hite urged the attendees to review the draft Environmental Assessment for the Ellendale area and provide comments at or before the February 19, 2009 agency meeting. Ed Bonner asked whether the document had been downscoped from an EIS. Mr. Hite responded that the Ellendale area has always been the subject of an EA, while areas to the north and south were anticipated to be EISs. Nick Blendy further clarified that FHWA's recently revised Notice of Intent explains the break between the Georgetown and Millsboro-South areas. The Georgetown area is being downscoped from an EIS to an EA, which will be explained in that document.

Mr. Hite stated that based on assessment by the project team, no significant impacts are anticipated in the Ellendale area. Gwen Davis and Michael Hahn said that DeIDOT and SHPO have reviewed the second Ellendale cultural resource report, but have not yet reviewed the supplemental State Forest report. A field review for the Ellendale area will be held on January 21. Mr. Blendy said the draft EA review period may need to be extended if significant Section 106 issues arise during the cultural resource report review and field view, if Native American coordination dictates, or if there are substantial comments on the draft EA.

Mr. Blendy mentioned to the agencies that the draft Ellendale EA follows FHWA's preferred format, focusing on the preferred alternative rather than serving as a "mini EIS."

Ms. Davis said that there has been no real opportunity to discuss the archaeology predictive model, and that this could factor into development of the Memorandum of Agreement.

Justin Reel reviewed the issue of wetland boundaries. As noted at the October 23, 2008 agency meeting, the GIS boundaries based on 2002 land use/land cover (LULC) data overestimated wetland areas, an assertion that was subsequently confirmed by field views. He then displayed maps showing 2002 and 2007 LULC data, as well as field view results. In most cases, the 2007 LULC data continue to overestimate wetlands, similar to the 2002 data. However, there is one exception: a wetland area first identified on the 2007 mapping in the SR 16 interchange area. Because this area is currently a farmed field, this wetland appears to be a data error. However, because that has not yet been verified in the field, the draft EA includes impact to this area (about 3 acres). As such, the total wetland impact in the EA is approximately 4 acres. Mr. Reel indicated that if the area in question is removed, which he believes will occur, wetland impacts will be approximately 1.1 to 1.2 acres. Furthermore, he indicated that any reduction in wetland acreage would generally be added to the forested upland impacts category in the Natural Environmental Impacts table on page 23 of the draft EA.



Karl Kratzer suggested that the agencies review the Georgetown area in the field at the same time the Ellendale review occurs because there are similar issues to be addressed in both areas.

Mr. Bonner asked whether there is any prior converted cropland in the area. He noted that in USACE's opinion, a "proposed change in use" constitutes abandonment of farming activities. Such a proposed change in use could be triggered by a jurisdictional determination request or even by as little as a statement by a farmer that he is considering a future change in use. There was extensive discussion of this point. In particular, Bryan Hall expressed concern that many property owners in Sussex County have entered the early stage of considering development, which could be construed as a proposed change in use.

### **GEORGETOWN AREA**

Mr. Hite reviewed project activities to date. In fall 2004, 19 preliminary alternatives were developed by DelDOT for initial consideration by the agencies, Working Group, and public. Late the following year, those 19 preliminary alternatives were reduced to eight build alternatives plus no-build. In spring 2007, due to overwhelming public comment, only the Refined On-Alignment Alternative was retained for detailed study. The agencies were briefed on this approach at meetings in April and May 2007. Mr. Hite indicated that the project team intends to distribute the draft Environmental Assessment at next month's agency meeting.

Jeff Riegner presented the Refined On-Alignment Alternative. With the exception of reconfigured ramps at Arrow Safety Road, the alternative is essentially unchanged since it was last discussed with the agencies. It includes the following components:

- The US 113 main line remains in the existing right of way
- Each direction is widened from two to three lanes
- A continuous median prevents left turns and cross traffic, eliminating the need for traffic signals
- Left turns, U-turns, and cross traffic are accommodated through seven grade separations with access ramps
- Most side streets and driveways remain (with right turns in and out), except adjacent to new ramps

Mr. Blendy asked whether any 4(f) impacts are anticipated. Mr. Riegner responded that they are not, and pointed out that although the improvements pass through the potential Melvin Joseph historic district, they remain within the existing right of way. Ms. Davis confirmed that this would not be a 4(f) impact, as the highway is not a contributing element within the district. This would likely be considered a "no adverse effect." Mr. Blendy also concurred that this would not be a 4(f) impact, but would require Section 106 coordination.

Mr. Hahn asked whether access would be provided to the Short house near the southwest corner of US 113 and US 9. Mr. Riegner said that because the house is on a large tract, access could be provided through other parts of the property. Mr. Hall added that Sussex County has purchased the entire property for potential use as a new office complex. Further, Ms. Davis acknowledged that the property has deteriorated and that, though it is considered National Register eligible, its integrity is "hanging by a thread."



Mr. Hahn also asked about two other properties. He referenced the Jester Tract of Ellendale State Forest, on the west side of US 113 at the northern end of the Georgetown area. This property may contain the remains of several Civilian Conservation Corps activities of potential significance. Mr. Riegner said that no impacts to the tract are anticipated, but will confirm that the tract does not extend as far south as the proposed Wilson Road grade separation. Mr. Hahn also asked whether access could be provided to the eligible property near the southeast corner of US 113 and Governor Stockley Road. Mr. Riegner replied that although the property is fairly close to the northbound US 113 off-ramp to Governor Stockley Road, it will likely be feasible to retain right-in/right-out movements at the driveway.

Mr. Kratzer referenced comparative wetland impacts associated with the alternatives. He noted that the majority of wetland impacts are in the area of the Wilson Road grade separation. The current impact numbers assume the interchange infield (about 5 acres) is fully impacted, while in reality it will not be directly disturbed, but will instead be isolated from the surrounding wetlands. He requested a field view to discuss the situation; Mr. Bonner concurred and will suggest available dates. Mr. Bonner added that the EA should note that appropriate mitigation will be provided, given that construction is not imminent.

Joanne Lee stated that the EA should be specific in its documentation of Waters of the US and suggested a site visit to review DNREC jurisdictional subaqueous lands.

Mr. Hite outlined the next steps, including distribution of the draft EA to the agencies in February, subsequently addressing agency comments and making the final submittal to FHWA.

Mr. Hall noted that Georgetown has not completed the update of its comprehensive plan and asked whether that posed any issues with respect to US 113. Mr. Hite said it should not, as DeIDOT and the Town have been working closely since last August to make sure the comprehensive plan and the Refined On-Alignment Alternative are coordinated. Mr. Hall said he would provide available information regarding the Georgetown plan.

### **MILLSBORO-SOUTH AREA**

Mr. Hite reviewed project activities from early 2007, the last time the project was discussed in detail with the agencies. A field view of sites throughout the Millsboro-South Area was held in February 2007. Between April and July of that year, a number of agency meetings were held, focusing primarily on potential crossings of Cow Bridge Branch. On June 12, 2007, the Millsboro-South Area Working Group recommended the Blue Alternative (a long eastern bypass). Ms. Davis asked how DeIDOT reacted to that recommendation. Mr. Hite responded that DeIDOT made it clear to the Working Group that the agency review process still needed to take its course.

By way of introduction to the Millsboro-South alternatives, Mr. Riegner reminded the attendees that although our most recent discussions have focused on the Cow Bridge Branch area, all of the ARDS illustrated in the presentation remain under consideration. He also added that on the map, all of the alternatives share a common on-alignment segment from south of Parker Road to the Delaware/Maryland state line, as well as an SR 54 connector north of Selbyville. The Gold Alternative, a short western bypass of Selbyville, was originally considered, but had greater resource impacts than the on-alignment alternative and faced opposition from the Town of Selbyville.



Joe Wutka presented the Yellow Alternative, which includes on-alignment improvements and connectors to SR 24, SR 26, and SR 54. Through extensive coordination with the Town of Selbyville, the project team is proposing access to properties along US 113 through “backage” roads on either side of the highway. Grade separations would be provided to cross US 113. At Mr. Bonner’s request, Mr. Wutka illustrated the SR 54 connector in detail. SR 54 would be realigned starting just west of US 113, crossing the main highway at a new interchange. The route would then continue east on new alignment, north of the Town of Selbyville, to SR 17. It would then continue east to existing SR 54 utilizing existing roads, which may require minor widening.

Mr. Hite and Mr. Wutka then discussed the six eastern bypass alternatives, each of which includes SR 26 and SR 54 connectors. They reminded the attendees of the shifts discussed in spring 2007 near the mouth of Cow Bridge Branch, including one alignment at the head of Millsboro Pond that completely avoids the Stockley nature preserve. Mr. Hite noted that all build alternatives under consideration include a crossing in this area, and that this one alignment appears to be the only viable alternative across Cow Bridge Branch.

Mr. Hite updated the group on the land ownership discussions involving Sweetwater Pointe. This past fall, an agreement was made in principle between the developer and the State of Delaware. Ultimately, the State will own the property in question, which constitutes the middle of three pieces that make up Sweetwater Pointe. This agreement permits the project team to more specifically define alternatives in this area and assess their impacts.

Ms. Lee asked about the status of the “B6” alternative, which would avoid the Stockley nature preserve to the north. Mr. Hite said that when the agencies met in the field, concern was expressed about impacts to wetlands and to a recently completed development. Mr. Riegner added that the public strongly opposed alignments in this area as part of the spring 2007 discussions regarding an eastern connection between the Georgetown and Millsboro alternatives. The “B6” alternative was not retained for detailed study.

Mr. Hall said that developers are working with the Town of Millsboro to annex land on the east side of US 113 north of SR 20 for a mixed-use development containing a horse racing track as well as residential and commercial uses. He indicated that the applicant is planning to open the track in 2011.

Mr. Riegner briefly reviewed the western bypass alternatives. He noted again that these alternatives also include SR 24, SR 26, and SR 54 connectors. All build alternatives require a crossing of Cow Bridge Branch north of Millsboro. The six eastern bypass alternatives would include a four-lane divided crossing; a two-lane connector crossing would be part of the western bypass and on-alignment alternatives. He noted that each would use the best alignment determined through further coordination with the agencies.

Mr. Reel discussed Delmarva fox squirrel (DFS) issues in detail. He said that although extensive field studies in 2007 and early 2008 failed to record additional sightings, the project team initiated informal consultation with the USFWS based on DNREC’s single original DFS sighting. Potential habitat field investigations were conducted in June 2008 for all forested areas within three miles of the Cow Bridge Branch forest and within 150 feet of the limit of disturbance of any alternative. Areas were classified: 26 with no habitat (typically cut over, disconnected, or much too small), 15 with habitat,



and 14 with possible habitat. These initial findings were subsequently reviewed with USFWS during a November 2008 field view. At that time, USFWS informally indicated that most possible habitat areas may be classified as no habitat, and even some good habitat areas may be too disconnected from other areas. However, the project team is still waiting for formal USFWS habitat determinations.

Mr. Reel then presented the path forward for addressing potential DFS issues, including the DEIS, FEIS, and biological assessment. He indicated that typical mitigation consists of protecting three acres of actual occupied habitat for each acre of impact. Mr. Kratzer added that protection of the Sweetwater Pointe property, which is immediately adjacent to the Stockley nature preserve where the squirrel was sighted, could provide a very good opportunity for that mitigation. With respect to the biological assessment, Mr. Reel said that sites could be evaluated just before construction. If squirrels are not found, that habitat could be removed from the impact list. However, due to the high cost and time requirements for presence/absence surveys, it may be more cost effective to simply preserve the mitigation site(s) instead.

Mr. Bonner suggested that DNREC and USFWS work closely together on Delmarva fox squirrel issues. Mr. Reel said that Holly Niederriter of DNREC has been involved in the project team's discussions with USFWS.

Ms. Lee asked, given the long time frame of this project, whether "no habitat" areas could mature to become viable habitat before the project is constructed. Mr. Kratzer responded that the environmental documents must be periodically re-evaluated if there is a long gap between environmental clearance and construction. Mr. Blendy concurred.

#### **OTHER ISSUES / WRAP-UP / NEXT STEPS**

Mr. Hite indicated that the Millsboro-South DEIS could potentially be completed in late 2009 or early 2010.

Ms. Davis cautioned that staffing concerns at SHPO may limit the agency's ability to meet anticipated review workload. She urged DelDOT to carefully and clearly establish project priorities.

The next US 113 agency meetings are scheduled for February 19, 2009 (confirmed), March 26, 2009 (confirmed), and April 23, 2009 (tentative). [Note: a March 5, 2009 meeting is confirmed to discuss US 301 specifically.]



## Memorandum of Meeting

**Date:** March 26, 2009  
**Time:** 11:00 a.m.  
**Location:** DeIDOT Canal District Office, Bear, DE  
**Topic:** US 113 North/South Study Status Update

**Attendees (for the US 113 portion of the meeting):**

Matt Bailey – DNREC-DFW	Monroe Hite, III – DeIDOT
Ed Bonner – USACE	Mike Hahn – DeIDOT
Jim Butch – EPA	David Clarke - DeIDOT
Nick Blendy – FHWA	
Ryan O’Donoghue – FHWA	Karl Kratzer – WR&A
Dan Montag - FHWA	Todd Oliver – WR&A
Gwen Davis – DE SHPO	Shilpa Mallem – RK&K
Joanne Lee – DNREC-WSLs	Justin Reel – RK&K
Kevin Magerr – EPA	Ed Thomas – KA
Milton Melendez – DDA	
Bob Zepp – USFWS	
Bryan Hall - OSPC	

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A meeting was held Thursday, March 26, 2009 to continue discussions with the resource agencies about the US 113 North/South Study. This was part of a larger meeting during which other projects were discussed with the agencies; these minutes reflect only the US 113 discussion.

The focus of the US 113 portion of the meeting was to:

- Review the Millsboro-South Area Alternatives Retained for Detailed Study (ARDS) and present alternatives that have been dropped
- Review alignment shifts for the Millsboro-South ARDS
- Present preliminary impact numbers and initiate discussion of a recommended preferred alternative for the Millsboro-South Area
- Invite final comments on the draft Environmental Assessment and review the proposed schedule for the Ellendale Area
- Review the schedule for submitting the Georgetown Area draft Environmental Assessment



## **INTRODUCTION**

Monroe Hite, III welcomed the group, thanked everyone for their attendance, reviewed the agenda, and provided the following materials to the attendees:

- Meeting PowerPoint presentation
- Copies of the minutes from the February 19, 2009 meeting
- Half-size maps of the Millsboro-South Area western bypass alternatives
- Half-size maps of the Georgetown on-alignment alternative

## **MILLSBORO-SOUTH AREA**

Mr. Hite reviewed the alternatives that have been dropped since the last agency meeting on February 19, 2009. He noted that five alternatives (4 Eastern alignments and 1 Western alignment) were dropped and provided brief explanations for removing them from consideration. Mr. Hite also clarified the reasons for dropping Alternative B6, which was never considered as part of the ARDS. Mr. Hite stated that the remaining five alternatives include the Red and Blue eastern bypass alternatives, the Yellow on-alignment alternative and the Purple and Green western bypass alternatives.

Matt Bailey questioned whether B6 was dropped for political reasons or impacts to natural resources. Mr. Hite indicated it was a combination of both. Mr. Bailey stated that the DEIS needs to clearly define those reasons and provide details outlining the referenced impacts.

Mr. Hite then noted that the first part of the meeting will be focused on western bypass and on-alignment alternatives because the February agency meeting ended without an opportunity to discuss those alternatives.

### ***Western Bypass Alternatives***

Todd Oliver reviewed the two remaining western bypass alternatives (Green and Purple) and provided a summary of changes since the last meeting. More specifically, Mr. Oliver noted that the alignment for the SR 24 connector, which previously included two alternatives, has been revised to a single alternative. He also noted that this alignment follows the same alignment as the northern section of the eastern bypass (B4) alternatives. Mr. Oliver clarified that all the remaining alternatives, east, west and on-alignment, include a connection to SR 24 that will follow this alignment south of the Cow Bridge Branch Nature Preserve.

Matt Bailey clarified that the Cow Bridge Branch Nature Preserve should be referred to as the Doe Bridge Nature Preserve.

Nick Blendy asked about the status of 4(f) and 6(f) impacts for the alternatives. Mr. Hite mentioned that the cultural resource review is on-going and locations of potential 4(f) properties have not been finalized. Karl Kratzer mentioned the location of one known 6(f) property along the western bypass alternatives; however, the alignments have been shifted to avoid any impacts.



### ***On-Alignment Alternative***

Shilpa Mallem reviewed the on-alignment alternative, reiterating the proposed east-west connections to SR 24, SR 26/SR 20 and SR 54. She noted the segment through Selbyville has been modified to allow some direct access; however, the remaining alignment to the north will be limited access with frontage roads provided for local access.

Matt Bailey asked if the on-alignment concept is addressed in the Millsboro comprehensive plan. Monroe Hite indicated that the Town of Millsboro as well as Dagsboro and Frankford have all expressed strong opposition to the on-alignment alternative and supported the longer east bypass alternatives.

Nick Blendy asked about the status of park and recreational lands along the on-alignment alternative. He also asked about the status of potential 4(f) impacts. Mr. Blendy noted the importance of quantifying the historic resource impacts in the document. Mr. Hite noted that the project team is actively working toward a conclusion with respect to 4(f) properties. Gwen Davis noted that a total of six cultural resource evaluation reports have been submitted to her office and five have been reviewed.

### ***Eastern Bypass Alternatives***

Shilpa Mallem provided a review of some alignment shifts along the two remaining eastern bypass alternatives (Red and Blue). She noted a shift of the Indian River crossing to avoid a proposed expansion to the Indian River power plant. Bob Zepp also mentioned a separate project that includes the expansion of power transmission lines from the Eastern Shore to the Indian River power plant. He said the exact location of the proposed expansion is not finalized, but believes a majority of the transmission lines will be along existing right-of-way. Matt Bailey asked for a comparison between the forest impacts based on the alignment shift. Mr. Bailey also asked if there has been any consideration to quantify the cumulative impacts of the US 113 project and the power plant expansion on the Delmarva Fox Squirrel habitat.

Gwen Davis noted some concern about impacts to the archaeology site that is listed on the National Register. Ms. Davis indicated that the site was reviewed in the 1970s and could contain some significant resources. She also noted that there is also a potential family cemetery near the site, located north of SR 24 that could be impacted by the proposed alignment.

Mr. Nick Blendy requested that the project team add labels to the mapping for the nature conservancy property as well as other key landmarks or resources.

Ms. Mallem also reviewed the changes made to the SR 26 and SR 20 interchange area and Frankford area, following the field meeting with the agencies in 2007.

Nick Blendy asked if the Sussex County comprehensive plan considered the existence of RTEs. Bryan Hall noted that RTEs were not considered as part of the comprehensive plan.

Kevin Magerr asked if the project team could provide a breakdown in the wetland impacts, including location and wetland quality.



### *Impact Matrix review*

Todd Oliver presented some of the preliminary quantities for the Millsboro-South impact matrix. Mr. Oliver clarified that these values are preliminary and based on the current LOD for the alternatives. Mr. Bailey inquired why the impacts for the Purple Alternative (western bypass) are higher than those associated with the Green Alternative (western bypass). Mr. Oliver noted on the display map where the Purple alternative connects to existing US 113 there is a large wetland area adjacent to the roadway.

Matt Bailey asked if the wetlands in the Millsboro area have been delineated yet. Karl Kratzer and Justin Reel replied that there have been field reviews and all the wetlands have been visited as part of this review, but a formal delineation has not yet been performed. Ed Bonner expressed some concern regarding the consistency of the wetland boundaries defined by the land use GIS data along the western bypass alternatives. Karl Kratzer confirmed that the wetland impacts along eastern bypass alternatives are consistent with what was defined by the GIS data and supplemented by several field views with the agencies. Mr. Kratzer stated that he will contact Mr. Bonner about scheduling a field view to more clearly define the wetland boundaries along the western bypass alternatives.

Jim Butch stated that given the issues associated with the bypass alternatives, it seems like a refined on-alignment with some east-west connections would be more appropriate. Mr. Hite reiterated that the towns are completely opposed to the on-alignment alternative. Ms. Davis questioned the need for the on-alignment alternative to be limited access. Mr. Hite noted that changing the limited access will not meet the project purpose.

Ed Bonner stated that since the fox squirrel has been sighted in the Doe Bridge Branch area, all woodlands that are within a 3-mile radius of Doe Bridge Nature Preserve would qualify as potential fox squirrel habitat. Since the woodlands on the west side of US 113 that are being impacted by the western bypasses are within this 3-mile radius, these contiguous forests might all qualify as fox squirrel habitat. He asked if all these woods were surveyed during the determination of potential fox squirrel habitat by the project team. Justin Reel replied that the team surveyed all forest areas where any of the alignments impacted them within the 3-mile radius of the fox squirrel sighting, but did not look at the continuation of those forests.

Nick Blendy said that given the impact of the eastern bypass alternatives to the National Register Archaeological site east of the Indian River, an on-alignment upgrade might be the only 4(f) avoidance alternative in the project area. He also suggested that the matrix provide some preliminary quantities of potential 4(f) resources. Mike Hahn said that DeIDOT and SHPO will work with the project team to provide some preliminary numbers. Ms. Davis suggested some alternative mapping to clarify locations of properties that are still under review versus those that have been determined ineligible for the national register based on consultant review. David Clarke suggested that a brief explanation of the Historic and Archaeological information shown in the impact matrix be presented during the next meeting. To avoid the 4(f) situation at the Indian River site, Nick Blendy suggested that the project team might have to look at shifting the east bypass alignment onto the Nature Conservancy property located east of the current location of the alignment. Ed Bonner asked if the woods in the Nature Conservancy area were surveyed as part of the fox squirrel habitat determination



process, since they lie within the 3-mile radius of the Doe Bridge Area Nature Preserve. Justin Reel said that they were surveyed and considered potential fox squirrel habitat.

Ed Bonner stated that he was not comfortable with going further with the discussion to determine a preferred alternative in the Millsboro area at this point of time without having more detailed information regarding all the issues discussed during the meeting. Dan Montag asked Mr. Bonner what specific information would be necessary to further the discussion during the next meeting. It was decided that all the agencies would need more information regarding the Cultural Resources in the project area, including information on the National Register listed archaeological site north of the Indian River, information on Ingram Pond and Iron Branch and wetland and Waters of the US impacts. Mr. Bonner stated that at this point of time, he did not have a preferred alternative in the Millsboro project area.

Talking about the towns' position on the US 113 project in the area, Bryan Hall said that the towns are approaching it from an economic and community standpoint. While looking for connectivity within and between the towns, the towns are also looking for a solution that provides relief to the traffic on existing SR 24 by providing a bypass outside the town. He also said that the boundaries of Millsboro's comprehensive plan are constrained by the Town's ability to manage and mitigate their waste water treatment. He said that the Town cannot afford to cross the Indian River and Millsboro Pond as they are concerned about their ability to obtain a permit from DNREC to cross these water bodies with waste water lines. He also mentioned that none of the properties north of Millsboro Pond are likely to be annexed into the Town. Ed Bonner asked Mr. Hall about the process that the towns have to go through to change their comprehensive plan. Mr. Hall replied that that plan has to be rewritten every 10 years and reviewed every 5 years. If during the process of this review, substantial changes are noticed, the plan needs to be updated. The town would then need input from all the concerned agencies such as DNREC, DeIDOT, etc, submit the plan for public review at the county and then send it to the Governor's office for the final action. He also mentioned that the Millsboro comprehensive plan was originally due in November 2008 but had to be postponed to April due to pressure from the developments and communities.

### **ELLENDALE AREA**

Monroe Hite briefly reviewed the status of the Ellendale EA and requested that attendees submit any final comments by Monday March 30, 2009. Mr. Hite noted that a field view was conducted with DNREC on March 20 to review impacts to subaqueous lands. Joanne Lee mentioned that she was still working on updating the current Waters of the US file based on the field review. Mr. Hite also noted that there are some cultural resource items that need to be addressed before the document is submitted to FHWA for review and approval and the MOA is finalized. Mike Hahn noted that the information has been reviewed by DeIDOT and forwarded to SHPO for review and comment. Gwen Davis asked if this updated report included information on the road side stand. Mr. Hahn replied that the report included information on the road side stand, the state forests and the CCC facilities.

### **GEORGETOWN AREA**

Mr. Hite reviewed the status of the Georgetown Area and noted that the original intent was to submit a draft EA today to the agencies for review; however, that has been delayed until April. He noted the



project team is working to apply agency comments from the Ellendale EA review as the Georgetown draft EA is being prepared.

Karl Kratzer mentioned that a field view was conducted with Ed Bonner on February 26, 2009 to finalize wetland locations along the preferred alternative in Georgetown. Todd Oliver presented an alignment shift at the interchange of US 113 and Kruger Road that resulted from the field view.

#### **OTHER ISSUES / WRAP-UP / NEXT STEPS**

The next US 113 agency meeting has been confirmed for April 23 at 9:30 a.m. and is expected to last most of the day. Currently, US 113 is the only agenda item for that meeting. Lunch will be provided. [Subsequently, the April 23 agency meeting has been cancelled. The next agency meeting is scheduled for May 28 at 9:30 am.]



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Chesapeake Bay Field Office  
177 Admiral Cochrane Drive  
Annapolis, MD 21401  
410/573-4575



November 28, 2006

Ericka Rush  
Urban Engineers, inc.  
530 Walnut St. 14th Flr.  
Philadelphia, PA 19106

*RE: US 113 North South Study*

Dear Ms. Rush

This responds to your letter, received November 27, 2006, 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 located along US 113 (from Georgetown down to US 113 at Hudson Pond). 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 threatened swamp pink (*Helonias bullata*) has been documented to occur in the project area. Swamp pink is a perennial wildflower that inhabits a variety of freshwater wetlands, including spring seepages, swamps, bogs, wet meadows and margins of small streams. We recommend that any wetlands to be filled or otherwise affected by the proposed project be surveyed for the presence of swamp pink by a professional botanist. Enclosed is a list of qualified individuals who have experience with swamp pink surveys. Even if no direct effects to potential swamp pink habitat are identified, any projects on this property must be designed to minimize impacts of hydrologic changes, siltation, and runoff (quantity and quality) on the watershed. Any such potential impacts on swamp pink 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.

The federally threatened bald eagle (*Haliaeetus leucocephalus*) nests within the project area or within the vicinity of the project. For further information regarding activity at this nest, Christopher Heckscher of the Delaware Natural Heritage Program should be contacted at (302) 653-2880 ext 118. Any construction or forest clearing activities within one-quarter mile of an active nest may impact bald eagles. 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 proposed or federally listed endangered or threatened species are known to exist within the project impact area. Therefore, no Biological Assessment or further Section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if 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 Edna Stetzar, of the Delaware Natural Heritage and Endangered Species Program, at (302) 653-2883 ext. 126. You may also obtain information on how to make such a request by visiting the Program website at [www.dnrec.state.de.us/nhp](http://www.dnrec.state.de.us/nhp).

An additional concern of the Service is wetlands protection. The Service's wetlands policy has the interim goal of no overall net loss of Delaware Bay's remaining wetlands, and the long term goal 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, Philadelphia District should be contacted for permit requirements. They can be reached at (215) 656-6728.

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 Devin Ray at (410) 573-4531.

Sincerely,



 Mary J. Ratnaswamy, Ph.D.  
Program Supervisor, Threatened and Endangered Species

Zimbra

jreel@rkk.com

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## Re: DFS impact calculations

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**From** : Craig Koppie <Craig\_Koppie@fws.gov>

Wed, Jul 01, 2009 12:25 PM

**Subject** : Re: DFS impact calculations

 2 attachments

**To** : Justin Reel <jreel@rkk.com>

**Cc** : David Smith <davids@coastal-resources.net>

Justin,

Should DelDot need to assess and calculate DFS impacts, the values for forest removal (3:1) and degradation (2.5:1) are correct. However, after discussing the project with Cherry Keller today, I have been informed that, at this time, DelDot has no ESA compliance requirement specific to the Delmarva fox squirrel. The observation of an individual DFS and negative trapping/photo data at Doe Bridge Nature Preserve is not sufficient to suggest a DFS population and the requirement of a 3-mile regulated buffer.

Craig Koppie, USFWS  
Endangered Species Biologist  
Chesapeake Bay Field Office  
Phone: 410/573-4534  
Fax: 410/269-0832  
E-mail: Craig\_Koppie@fws.gov

 Justin Reel <jreel@rkk.com>

**Justin Reel**  
<jreel@rkk.com>

07/01/2009 11:23 AM

To Craig Koppie <craig\_koppie@fws.gov>  
cc David Smith <davids@coastal-resources.net>  
Subject DFS impact calculations

Craig,

I very quickly wanted to confirm how I am calculating impacts to potential DFS habitat areas and mitigation ratios with you. Direct impacts will be calculated based on the limit of disturbance (trees will be removed). Degradation impacts will be calculated based on a 150 foot buffer from the limit of disturbance.

Direct impact mitigation ratio of 3 acres of preservation for every 1 acre of impact (3:1)  
Degradation impacts mitigation ratio of 2.5:1.

Please confirm these values for me. We left one area as questionable (Ingram Pond) from the field view (thinking that it might be too wet). For impact calculation purposes I have assumed worst case and include it as potential habitat. I will provide you with an impact table, and figure showing the alternatives for your consideration prior to the meeting on Tuesday.

Thanks

---

**JUSTIN REEL**  
Project Manager

RK&K  
81 Mosher Street  
Baltimore, MD 21217

410.728.2900 P  
410.728.2834 F  
www.rkk.com

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STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**  
800 BAY ROAD  
P.O. Box 778  
DOVER, DELAWARE 19903

SHAILEN P. BHATT  
SECRETARY

January 17, 2012

Mr. Gregory Murrill  
Federal Highway Administration, DelMar Division  
J. Allen Frear Federal Building  
300 South New Street, Suite 2101  
Dover, DE 19904

Dear Mr. Murrill:

Reference is made to DelDOT Contract 22-127-01. We are pleased to submit the revised Draft Environmental Assessment for the **Georgetown Area of the US 113 North/South Study in Sussex County**. The document has been revised to address comments provided by your office on November 28, 2011. Enclosed please find an errata sheet listing the revisions in the document for your reference.

Please also find enclosed a draft of the Public Notice announcing the availability of the Draft Environmental Assessment. Once approved, please sign and forward back to me the attached signature page.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in blue ink that reads "Natalie Barnhart".

Natalie Barnhart, P.E.  
Chief Engineer

NB:mhs

Enclosures

cc: Michael H. Simmons, Assistant Director, Project Development, South  
George Spadafino, Group Engineer, Project Development, South  
Michael Williams, Manager, Director of Public Relations  
Therese Fulmer, Manager, Environmental Studies  
Monroe Hite, III, Project Manager, Project Development, South  
Michael Hahn, Senior Planner, Environmental Studies  
Basharat Siddiqi, Assistant Division Administrator, FHWA  
Ryan O'Donoghue, Area Engineer, FHWA  
Nick Blendy, FHWA





U.S. Department  
of Transportation  
  
Federal Highway  
Administration

**DelMar Division**

**Delaware Office**  
300 South New Street, Suite 2101  
Dover, DE 19904  
(302) 734-5323

April 11, 2012

Refer to: HDA-DE

Mr. Reid Nelson  
Advisory Council on Historic Preservation  
The Old Post Office Building  
1100 Pennsylvania Avenue, NW, #803  
Washington, DC 20004

Dear Mr. Nelson:

The Federal Highway Administration Delmar Division (FHWA) is pleased to submit the Environmental Assessment (EA) for the **Georgetown Area of the US 113 North/South Study in Sussex County, Delaware**. On behalf of FHWA, the Delaware Department of Transportation (DelDOT) had submitted a copy of the EA to your office via March 21, 2012 correspondence.

DelDOT and FHWA are undertaking a transportation project to identify, select and protect an alignment for a limited access highway from north of Milford south to the Maryland state line in Selbyville. The Georgetown Area is just one section of a much larger US 113 North/South Study, which will lead to the conversion of US 113 into a limited access highway.

Pursuant to 36 CFR 800.8, we are electing to satisfy the steps and procedures for Section 106 compliance and purposes through use of the National Environmental Policy Act (NEPA) process. Formal consultation has been ongoing between our office, DelDOT and the Delaware State Historic Preservation Office (DE SHPO), which was addressed in project correspondence, dated June 29, 2010 to notify your office. As such, we would like to offer your office the opportunity to comment on any adverse effects within thirty (30) days of receipt of the EA.

In addition, DelDOT has prepared a Memorandum of Agreement (MOA) to deal with the future potential for archeological resource impacts and other project mitigation. Please advise us if the Advisory Council would like to participate in the MOA process. Ultimately, a copy of the fully executed MOA will be provided to your office.

Should you have any questions, please contact Nick Blendy at (302) 734-2966 or [nick.blendy@dot.gov](mailto:nick.blendy@dot.gov).

Sincerely yours,



for Basharat Siddiqi,  
Assistant Division Administrator

cc: Gwen Davis, DE SHPO  
Natalie Barnhart, Chief Engineer  
Michael H. Simmons, Assistant Director, Project Development  
Monroe C. Hite III, Project Manager  
George Spadafino, Group Engineer, Project Development  
Michael Williams, Manager, Public Relations  
Therese Fulmer, Manager, Environmental Studies  
Michael C. Hahn, Environmental Studies  
David S. Clarke, Archeologist, Environmental Studies  
Ryan O'Donoghue, DelMar Division  
Nick Blendy, DelMar Division  
File #525

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Preserving America's Heritage

April 12, 2012

Basharat Siddiqi  
Assistant Division Administrator  
FHWA – Delmar Division  
300 South New Street, Suite 2101  
Dover, DE 19904

Ref: *Proposed Georgetown Area-US 113 Transportation Improvements Project  
US 113 North/South Study  
Sussex County, Delaware*

Dear Mr. Siddiqi:

On April 11, 2012, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Delaware State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Ms. Najah Duvall-Gabriel at (202) 606-8585 or at [ngabriel@achp.gov](mailto:ngabriel@achp.gov).

Sincerely,

LaShavio Johnson  
Historic Preservation Technician  
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004  
Phone: 202-606-8503 • Fax: 202-606-8647 • [achp@achp.gov](mailto:achp@achp.gov) • [www.achp.gov](http://www.achp.gov)



STATE OF DELAWARE  
DEPARTMENT OF TRANSPORTATION  
800 BAY ROAD  
P.O. Box 778  
DOVER, DELAWARE 19903

SHAILEN P. BHATT  
SECRETARY

August 24, 2012

Mr. Timothy Slavin, Director  
Division of Historic and Cultural Affairs  
The Green, Suite 21A  
Dover, DE 19901

**Subject: Section 106 Consultation: Final Architectural Survey Report for US 113 Georgetown Study Area;  
State Contract Number T200212701, Federal Id: TBD**

Dear Mr. Slavin:

The Delaware Department of Transportation (DelDOT) Environmental Studies Section is please to submit a final architectural resource survey for the above referenced project.

The enclosed report (with CD copy of all materials) is intended for your information and records. They are also part of the compliance needs upon confirmation of all cultural resources for standing structures. Archaeological studies are still on-going.

Based on our review and past comments and with the availability of the pre-draft final on-line, formal changes were made to verify title questions raised on Blakeley Dwelling. Other questions or comments previously raised were verified in the field in late 2011 and in previous reviews. Beyond edits make in the Blakeley Dwelling, all other National Register forms were reviewed from draft to final.

If there are any questions please contact Michael C. Hahn of my section. Thank you for your continued cooperation.

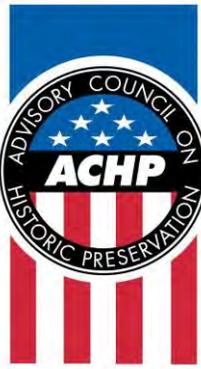
Sincerely,

Therese M. Fulmer, Manager  
Environmental Studies Section

TMF/mh  
Enclosure

cc: Ryan O'Donoghue, FHWA  
Nick Blendy, FHWA  
Joan Larrivee, DE SHPO  
Gwen Davis, DE SHPO  
Robert, McCleary, Assistant Director, Engineering Support  
Monroe Hite, Project Engineer  
Michael C. Hahn, Environmental Studies  
File





*Preserving America's Heritage*

February 12, 2013

Nick Blendy  
Environmental Specialist  
FHWA - DelMar Division  
1201 College Park Drive  
Dover, DE 19904

Ref: *Proposed Georgetown Area-US 113 Transportation Improvements Project  
US 113 North/South Study  
Sussex County, Delaware*

Dear Mr. Blendy:

The Advisory Council on Historic Preservation (ACHP) has received the Memorandum of Agreement (MOA) for the above referenced project. In accordance with Section 800.6(b)(1)(iv) of the ACHP's regulations, the ACHP acknowledges receipt of the MOA. The filing of the MOA, and execution of its terms, completes the requirements of Section 106 of the National Historic Preservation Act and the ACHP's regulations.

We appreciate your providing us with a copy of the MOA and will retain it for inclusion in our records regarding this project. Should you have any questions or require additional assistance, please contact Ms. Najah Duvall-Gabriel at (202) 606-8585 or via e-mail at [ngabriel@achp.gov](mailto:ngabriel@achp.gov).

Sincerely,

LaShavio Johnson  
Historic Preservation Technician  
Office of Federal Agency Programs

ADVISORY COUNCIL ON HISTORIC PRESERVATION

1100 Pennsylvania Avenue NW, Suite 803 • Washington, DC 20004  
Phone: 202-606-8503 • Fax: 202-606-8647 • [achp@achp.gov](mailto:achp@achp.gov) • [www.achp.gov](http://www.achp.gov)



U. S. Department  
of Transportation

**Federal Transit Administration**  
1760 Market Street  
Suite 500  
Philadelphia, PA 19103  
215- 656-7100  
215-656-7260 (fax)

**Federal Highway Administration**  
1201 College Park Drive  
Suite 102  
Dover, DE 19904  
302-734-5323  
302-734-3066 (fax)

Refer to: HDA-DE

JUL 19 2013

Mr. Shailen Bhatt  
Secretary  
Delaware Department of Transportation  
800 Bay Road  
Dover, DE 19901

**RE: Sussex County, DE & Salisbury/Wicomico Metropolitan Planning Organization's (SWMPO) Conformity Determination for the 2008 8-hour Ozone National Ambient Air Quality Standards (NAAQS) for Sussex County, DE**

Dear Secretary Bhatt:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed a joint review of the Sussex County, DE & Salisbury/Wicomico Metropolitan Planning Organization's (SWMPO) conformity determination for the 2008 8-hour Ozone National Ambient Air Quality Standards (NAAQS) for Sussex County, DE. The conformity determination applies to SWMPO's 2011 Long Range Transportation Plan (LRTP) and the Fiscal Year (FY) 2013 - 2016 Transportation Improvement Plan (TIP), and the Sussex County, DE portion of Delaware's FY 2013-2016 Statewide Transportation Improvement Program (STIP).

On May 20, 2012, the U.S. Environmental Protection Agency's (EPA) 2008 8-hour Ozone nonattainment designations for most areas in the U.S. were published in the *Federal Register*, with an effective date of July 20, 2012. In new 2008 8-hour Ozone nonattainment areas, conformity of a MPO's LRTP and TIP must be determined by July 20, 2013 (end of a one-year grace period after the effective date of final designations) to avoid a conformity lapse. Sussex County, DE was newly designated as the Seaford, DE 2008 8-hour Ozone nonattainment area, formerly part of the 1997 Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE area.

In accordance with the 1990 Clean Air Act Amendments (CAAA) and 23 CFR 450.322(l), the FHWA and the FTA must make a joint air quality conformity determination. Based on our evaluation of the material submitted, coordination with EPA's Region 3 Office, and input from DelDOT and SWMPO, we have determined that SWMPO's 2011 LRTP and FY 2013-2016 TIP, as well as the Sussex County portion Delaware's FY 2013-16 STIP conform with the 1990 CAAA and 40 CFR Part 93; and, therefore, render a positive conformity determination for Sussex County, DE for the above mentioned NAAQS. The EPA, by letter dated July 10, 2013, determined that the LRTP and TIP meet Federal requirements; and, therefore, has no issues with the conformity determination.

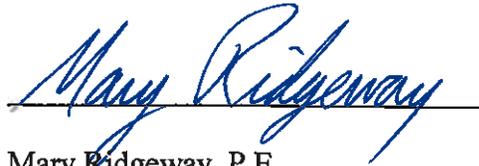
**RE: Sussex County, DE & Salisbury/Wicomico MPO's Conformity Determination**

If you have any questions, please contact Mr. Marc Dixon, Community Planner, FHWA DelMar Division, Delaware Office at (302) 734-4018, or Mr. Tony Cho, Community Planner, FTA Region III, at (215) 656-7250.

Sincerely,



*For* Brigid Hynes-Cherin  
Regional Administrator  
Region 3  
Federal Transit Administration



Mary Ridgeway, P.E.  
Division Administrator  
DelMar Division, Delaware Office  
Federal Highway Administration

ec: Keith Hall, Salisbury/Wicomico MPO  
Drew Boyce, DelDOT  
Mike DuRoss, DelDOT  
Mike Nixon, Maryland DOT  
Howard Simmons, Maryland DOT  
Tony Cho, FTA, Region 3  
Gregory Becoat, EPA, Region 3  
Anna Price, FHWA DelMar  
Marc Dixon, FHWA DelMar  
Kwame Arhin, FHWA DelMar



APPENDIX D: SECTION 106 CONSULTATION and MEMORANDUM OF AGREEMENT



State of Delaware  
Historical and Cultural Affairs

Terry Fulmer  
DelDOT

21 The Green  
Dover, DE 19901-3611

Phone: (302) 736.7400

Fax: (302) 739.5660

October 18, 2012

Mr. Gregory Murrill  
Acting Division Administrator  
Federal Highway Administration  
J. Allen Frear Federal Building  
300 South New Street, Suite 2101  
Dover, DE 19904-6726

RE: US 113 North-South Study – Georgetown Area; State Contract Number T200212701;  
Federal Aid Project Number TBD; DE SHPO Review Case Number 2003.08.14.01;  
executed Memorandum of Agreement

Dear Mr. Murrill:

On behalf of the Delaware State Historic Preservation Office (DE SHPO), I am writing to confirm our concurrence that the above-referenced undertaking will adversely affect historic properties, as identified in the Delaware Department of Transportation's (DelDOT) environmental compliance documentation. We have worked with DelDOT staff to reach a mutually agreeable Memorandum of Agreement (MOA) that outlines the steps to be taken to mitigate for these adverse effects. The MOA also outlines the process for phased identification and evaluation of archaeological sites. The State Historic Preservation Officer, Tim Slavin, has signed the MOA, which we are forwarding to DelDOT with a copy of this letter.

To complete the review process under Section 106 of the National Historic Preservation Act, please forward a copy of the executed MOA to the Advisory Council on Historic Preservation (along with a copy of this letter) and to the Delaware Nation and Delaware Tribe of Indians, in accordance with 36 CFR Part §800.6(b)(1)(iv) and (c)(9).

We look forward to continuing to work with the Federal Highway Administration and DelDOT in implementing the stipulations of the MOA. If you have any questions at this time, please do not hesitate to contact me (at [gwen.davis@state.de.us](mailto:gwen.davis@state.de.us) or 302-736-7410).

Sincerely,



Gwenyth A. Davis,  
Deputy State Historic Preservation Officer



Letter to G. Murrill

October 18, 2012

Page 2

Enclosure (copy of MOA)

cc: Nicholas Blendy, Environmental Specialist, Federal Highway Administration  
Ryan O'Donoghue, Federal Highway Administration (w/copy of the MOA)  
Timothy A. Slavin, Director/State Historic Preservation Officer, DHCA  
Natalie Barnhart, Chief Engineer, DelDOT  
Rob McCleary, Asst. Director, Engineering Support, DelDOT  
Therese M. Fulmer, Manager, Environmental Studies, DelDOT (w/original MOA)  
✓ Michael Hahn, Senior Highway Planner, DelDOT  
David Clarke, Archaeologist, DelDOT  
Monroe Hite, Project Engineer, DelDOT

**MEMORANDUM OF AGREEMENT (MOA)**

**AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE DELAWARE STATE  
HISTORIC PRESERVATION OFFICE, AND THE DELAWARE DEPARTMENT OF  
TRANSPORTATION**

**REGARDING IMPLEMENTATION OF THE US 113 NORTH/SOUTH STUDY -  
GEORGETOWN AREA PROJECT  
SUSSEX COUNTY, DELAWARE**

**STATE CONTRACT NUMBER: T200212701  
FEDERAL AID NUMBER: TBD**

WHEREAS, the Federal Highway Administration (FHWA) with the Delaware Department of Transportation (DelDOT) propose to construct 10.3 miles of transportation improvements including, but not limited to, bridge overpasses and grade separated interchanges along U.S. 113 in the Georgetown area of Sussex County, Delaware, hereon referred to as the "Project", (**see Attachment A**) and

WHEREAS, the FHWA in consultation with the Delaware State Historic Preservation Office (DE SHPO) and DelDOT has established the undertaking's Area of Potential Effect (APE), as defined in 36 CFR 800.16(d), as those areas within the Limit of Construction (LOC), Temporary Construction Easements (TCE), Permanent Easements (PE), Right of Way (ROW), and adjacent or contiguous properties where visual effects may occur; and

WHEREAS, the FHWA has consulted with the DE SHPO in accordance with Section 106 of the National Historic Preservation Act, 16 U.S.C. Part 470, and its implementing regulations (36 CFR Part 800) to resolve any adverse effects that may occur as a result of this Project; and

WHEREAS, FHWA has afforded the public an opportunity to comment on the effects of the Project on historic properties through the National Environmental Policy Act (NEPA) of 1969, as amended; and through DelDOT's Public Involvement Procedures; and

WHEREAS, FHWA has elected to phase the identification and evaluation of historic properties as provided in 36 CFR 800.4(b)(2), but will ensure that DelDOT completes the process in a timely manner, to allow practical opportunities to avoid or minimize adverse affects to historic properties, as stipulated under this MOA; and

WHEREAS, an Area of Potential Effect (APE) has been identified within the Project (**see Attachment A**) and FHWA and DelDOT have identified and evaluated buildings, structures and districts built in or before 1962; and

WHEREAS, FHWA acknowledges that in the extensive period it will take for DelDOT to complete the Project, additional buildings, structures or districts in the APE will come to meet

the minimum fifty (50) year age criterion for historic properties, and FHWA shall address such properties through the process stipulated in this MOA; and

WHEREAS, FHWA pursuant to 36 CFR Part 800.4 (a)(2), has determined that within the APE, the following properties are listed in or are eligible for the National Register of Historic Places:

Sharp-Wilson House (S03216);  
Carey-Wilson Secondary House (S03217);  
Prettyman-Carey House (S04517);  
Melvin Joseph Historic District (S04903);  
Daisey-Timmons Property (S10763);  
Daisey Dairy Farm (S10903);  
Lowe House (S11032);  
Blakeley Dwelling Complex (S11217);  
Blakeley's Service Station (S11218);  
Brittingham Commercial Strip (S11239); and

WHEREAS, FHWA, in consultation with the DE SHPO, has applied the criteria of adverse effect to known historic properties; and

WHEREAS, FHWA, through DelDOT, has determined that this Project will have no adverse effect on:

Sharp-Wilson House (S03216);  
Carey-Wilson Secondary House (S03217);  
Daisey Dairy Farm (S10903);  
Lowe House (S11032); and

WHEREAS, FHWA, through DelDOT has determined that this project will have an adverse effect on:

Pettyman-Carey House (S04517);  
Melvin Joseph Historic District (S04903);  
Daisey-Timmons Property (S10763)  
Blakeley Dwelling Complex (S11217);  
Blakeley's Service Station (S11218);  
Brittingham Commercial Strip (S11239); and

WHEREAS, FHWA has determined that the Project may also affect as yet unidentified historic properties in areas that have not been subject to prior cultural resource investigations, such as areas that are associated with proposed alignment modifications or other Project-related ancillary activities including, but not limited to, stormwater management facilities, wetland mitigation sites, reforestation areas, staging, stockpiling and access areas, and disposal sites, and that the APE may need to be revised to consider such areas; and

WHEREAS, FHWA and DeIDOT have notified the Advisory Council on Historic Preservation (ACHP) and the DE SHPO of their intent to use the NEPA process for Section 106 purposes (36 CFR Part 800.8(c)), and provided the draft Environmental Assessment for review. The ACHP initially declined to participate in the consultation on June 29, 2010, and reaffirmed that decision on April 12, 2012. However, if through the process outlined in this MOA, the signatories find that other historic properties may be adversely affected later in time, coordination with the ACHP may resume; and

WHEREAS, FHWA has contacted the Delaware Nation, the Stockbridge-Munsee Tribe, and The Delaware Tribe of Indians, hereafter referred to as the Federally Recognized Indian Tribes to determine their interest in being a consulting party for this project. Based on consultation to date for other Delaware projects, the Delaware Nation and Delaware Tribe of Indians have indicated their intent to participate in Delaware projects as a consulting party to the MOA for projects having the potential for discovery of Native American burials. If said discovery or unanticipated effects pertain to resources of Native American affiliation, FHWA and DeIDOT shall include the Delaware Nation and the Delaware Tribe of Indians in the consultation and notify the Stockbridge Munsee of said discovery. DeIDOT on behalf of FHWA will advise these Federally Recognized Indian Tribes of Native American archaeological sites, investigations, and treatments as a consulting party as provided for under the stipulations of this MOA, and

WHEREAS, DeIDOT participated in the consultation, has responsibilities for implementing stipulations under this MOA, and has been invited to be a signatory to this MOA, pursuant to 36 CFR Part 800.6(c)(2); and

NOW, THEREFORE, FHWA, DE SHPO, and DeIDOT agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the potential affect of the undertaking on historic properties to mitigate for the potential Adverse Effect.

### **Stipulations**

FHWA shall ensure that the following actions will be carried out:

#### **I. Archaeological Resources**

##### **A. Identification/Evaluation**

Prior to starting construction or other ground disturbing activities, DeIDOT in consultation with the DE SHPO shall conduct identification (Phase I) archaeological surveys within the APE for the project, and will determine if identified sites will require a Phase II level archaeological survey to evaluate their National Register of Historic Places eligibility. This work will include determining if the seven known archaeological sites (7S-F-103, 7S-F-073, 7S-F-047, 7S-F-068, 7S-F-098, 7S-F-094, 7S-F-100) that are located within the APE, as it is currently defined, will be affected by the project, and if so, evaluating their National Register eligibility. Evaluation

Studies (Phase II) may require additional background research and/or additional field excavations. All surveys shall conform to the requirements of Stipulation VII of this MOA.

DeIDOT shall prepare reports on findings of the archaeological identification/evaluation surveys and shall submit the reports to the DE SHPO for their review and concurrence. Upon receipt of the document, the review period will be thirty (30) days. FHWA and DeIDOT will take into account comments and will recommend any next steps.

During the Evaluation Studies (Phase II), FHWA and DeIDOT shall apply the National Register criteria (36 CFR 60.4) in accordance with 36 CFR 800.4(c), taking into account applicable historic contexts and management plans developed for Delaware historic and prehistoric archaeological resources.

If FHWA and DeIDOT determine that any of the National Register criteria are met, and the DE SHPO agrees the archaeological site(s) shall be considered eligible for the National Register.

If FHWA and DeIDOT determine that the National Register criteria are not met, and the DE SHPO agrees, the archaeological site(s) shall be considered not eligible for the National Register.

Based on the Evaluation Studies (Phase II), should a signatory to this agreement not agree on the eligibility determination of an archaeological site(s), the DeIDOT or FHWA shall obtain a determination from the Secretary of the Interior, pursuant to 36 CFR 800.4(c)(2), 36 CFR 63.2(c) and 63.3(d).

#### B. Effect Determination/Mitigation

If eligible archaeological sites are identified and affected within the APE, FHWA will consult with the Federally Recognized Indian Tribes. DeIDOT will make a reasonable effort to avoid these sites or to minimize impacts to them. If the eligible sites cannot be avoided, DeIDOT will apply the Criteria of Adverse Effect in accordance with 36 CFR Part 800.5.

If the project will have an adverse effect on archaeological sites, DeIDOT in consultation with the DE SHPO, shall develop a treatment plan. The treatment plan may include elements of data recovery and/or an alternative mitigation plan.

DeIDOT shall submit the treatment plan to the FHWA, DE SHPO, and other interested or consulting parties that may be identified later in time for their review and comment including the Federally Recognized Indian Tribes as defined in 36 CFR 800.16(m), for their review and comment. Upon receipt of the document, the review period will be thirty (30) days. Following thirty (30) days, DeIDOT will take into account any comments, and will recommend any next steps to the FHWA, DE SHPO and Federally Recognized Indian Tribes.

Should data recovery investigations be warranted, DeIDOT and FHWA shall ensure that a data recovery plan is developed in consultation with the DE SHPO, and the Federally Recognized

Indian Tribes or other consulting parties or interested parties identified later in time. The plan shall specify, at a minimum:

- the property, properties, or portions of properties where data recovery is to be carried out, and any property that will or may be destroyed without data recovery;
- the research questions to be addressed through data recovery, with an explanation of their relevance and importance;
- the research methods to be used, with an explanation of their relevance to the research questions;
- the methods to be used in analysis, data management, and data dissemination, including a schedule;
- a provision for assessing materials that may be in need of conservation;
- proposed disposition of recovered materials and records;
- proposed methods for involving the interested public in the data recovery, and for disseminating the results of the work to the interested public;
- a proposed schedule for the submission of progress reports to the DE SHPO; and
- provisions to meet on-site in order to evaluate the success of the initial fieldwork phase of any data recovery program, and near the end of the fieldwork efforts to validate substantial completion.

If the agreed-upon treatment plan includes preservation in place of all or part of an eligible site, FHWA, DelDOT and DE SHPO shall determine the need for and negotiate the terms of any legal instruments that would ensure long-term preservation or protection of the site. Any such legal instrument shall include, at a minimum, the following elements:

- a clearly defined list of allowed uses and prohibited uses of the site; and
- an acknowledgement that protection measures are being instituted in order to minimize or mitigate the Project's adverse effects to a National Register-listed or -eligible property; and
- a prohibition on any party, its successors, heirs or assigns, from terminating, modifying, altering or otherwise setting aside any such legal instrument unless the party, prior to taking such action, first provides the signatories to this MOA with written justification for termination, and consults with the signatories to develop a new treatment plan to address the potential adverse effects pursuant to 36 CFR Part 800.5, regardless of whether the term of this MOA has expired or not.

When and/or if an alternative mitigation strategy is chosen and approved by the DE SHPO, FHWA, and DelDOT, it may include but is not limited to: acquisition and protection of portion(s) of the site, analysis and synthesis of past data accumulated through either DE SHPO, FHWA, or DelDOT projects, updating the relevant DE SHPO and DelDOT archaeological websites and GIS databases, development of historic and prehistoric contexts and preservation priorities, statewide predictive models, development of travel or informational displays with the cultural resource work for this Project, oral histories from the project APE, documentaries about the history of the APE, virtual tour / website about the archaeological sites being mitigated in the

APE, and improved archaeological data management and access for both DE SHPO and DelDOT.

DelDOT will complete all necessary data recovery fieldwork prior to commencing construction in the site areas. Alternative mitigation may or may not be completed prior to commencing construction in the site areas.

DelDOT shall provide all draft and final archaeological reports and public information materials to the DE SHPO for review and comment. DelDOT will take into account any comments received. All final reports shall meet the Secretary of the Interior's standards and Guidelines for Archaeological Documentation (48 FR 44734-37), while also satisfying the DE SHPO's guidelines for archaeological surveys or investigations.

Should any Native American archaeological sites be identified, DelDOT will also provide copies of relevant draft and final reports and public information materials to the Federally Recognized Indian Tribes for review and comment, and will take into account any comments the Federally Recognized Indian Tribes provide.

#### C. Public Involvement

If mitigation is necessary, FHWA will consult with the Federally Recognized Indian Tribes. DelDOT will prepare a public participation plan and public information materials. Before releasing materials to the public, DelDOT shall submit the proposed action plan(s) with any materials to the FHWA, DE SHPO, the Federally Recognized Indian Tribes, and other consulting or interested parties that may be identified for their review and comment. Upon receipt of the materials, the review period will be thirty (30) days. Following thirty (30) days, DelDOT will take into account any comments received, and will recommend any next steps, if necessary, to the FHWA, DE SHPO, and the Federally Recognized Indian Tribes.

The public participation plan may include, but is not limited to, archaeological site tours for the public and educational groups. The specific public outreach materials produced will be determined individually for each site for which mitigation is necessary and may include, but are not limited to, pamphlets, videos, historical markers, brochures, websites, exhibits, displays for public buildings, booklets on the history or prehistory of the project area, lectures or presentations at academic conferences, and/or public institutions such as schools and historical societies.

DelDOT shall distribute the public information materials to other consulting parties and interested parties, local schools, historical societies, libraries, senior centers, museums and/or other venues and individuals deemed pertinent in consultation with the DE SHPO, FHWA, and the Federally Recognized Indian Tribes.

#### D. Registration of Site(s)

After the completion of the data recovery effort, DelDOT shall, in consultation with the DE SHPO, and other interested parties, as deemed appropriate by the FHWA, reevaluate the Site(s) to determine if it has yielded and/or may still yield information important in the prehistory or history of Delaware. If DelDOT and the DE SHPO agree that the Site(s) still meets the Criteria for eligibility to the National Register of Historic Places, then DelDOT shall instruct its qualified cultural resource consultant to prepare a Determination of Eligibility form for possible use as a formal nomination to the National Register of Historic Places for the remaining areas of the site(s), and submit it to the DE SHPO for review and further revision, as necessary.

#### E. Curation

DelDOT shall ensure that all records and materials resulting from the archaeological investigations will be processed, prepared for, and curated in accordance with 36 CFR Part 79 and the Division of Historical and Cultural Affairs' (the Division) "Guidelines for the Curation of Archaeological Collections" (2001). These records and materials shall be curated at the Division, or its designee, following the policies of the institution, except as may be provided for under the following paragraph.

As part of the Public Involvement efforts outlined in Stipulation I.C. of this Agreement, the FHWA, DelDOT, and DE SHPO will consult to determine if any archaeological materials may be loaned to a public museum or other public institution for the purposes of exhibit or research, following the Division's loan policy and procedures. Such loans and exhibits may occur only after the curatorial procedures, referenced in the first paragraph in this stipulation, have been completed. As deemed appropriate by FHWA, DelDOT, the DE SHPO, the Federally Recognized Indian Tribes and other consulting or interested parties identified later in time will be consulted concerning curation and any public exhibition of artifacts.

#### F. Discovery of and Treatment of Human Remains and Burials

DelDOT Environmental Studies and/or appropriate DelDOT construction engineering staff shall immediately (within 24 hours) notify the DE SHPO and FHWA of the discovery of any human remains encountered during the archaeological investigations or the project construction. DelDOT shall cease all activities that may disturb or damage the remains, and comply with the Delaware Unmarked Human Remains Act (7DE Code Chapter 54).

If the human remains are of Native American affiliation, then FHWA will immediately notify the Federally Recognized Indian Tribes. FHWA and DelDOT will forward information regarding Native American discoveries to the DE SHPO and the Federally Recognized Indian Tribes for review and comments. This will occur as soon as possible, within a period no longer than two (2) weeks. FHWA will request that the parties comment on the information within two (2) weeks of receipt. FHWA will then consult with the Federally Recognized Indian Tribes, the DE SHPO, and DelDOT to determine an appropriate course of action in accordance with 36 CFR 800, and taking into account the above cited state law.

The DE SHPO will comply with the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601) with regard to disposition of the remains and/or associated funerary objects, as applicable.

G. Residual Right of Way

The Project will require property acquisition that may or may not involve impacts to archaeological sites. Should existing right of way or lands acquired (for purposes of the Project) be later subdivided and/or declared excess right of way (to be leased, transferred, or sold), preservation covenants for that subject parcel will first be considered by DeIDOT, FHWA, and DE SHPO before DeIDOT takes any action to divest itself from such lands. The parties will determine if the subject parcel(s) contain, or has the potential to contain, any historic properties. If so, the parties will determine the need for and negotiate the terms of any legal instruments that would ensure long-term preservation of such properties. Any such legal instrument shall include, at a minimum, the elements defined in Stipulation I.B. of this MOA. This will adequately address any reasonably foreseeable adverse effects that could occur due to transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions to ensure long-term preservation (or mitigation) of historic properties (36 CFR part 800.5(a)(2)(vii)).

**II. Historic Buildings**

The Project will adversely affect historic properties by introducing visual or audible elements that may diminish the integrity of the property, and/or by changing the character of the property's use or of physical features within its setting that contribute to its historic significance. In consultation with the DE SHPO, FHWA and DeIDOT have determined that there is no practical way to directly mitigate the adverse effects to the following properties:

Prettyman-Carey House (S04517);  
Melvin Joseph Historic District (S04903); and  
Brittingham Commercial Strip (S11239).

DeIDOT shall consult with the owner of the Blakely Dwelling Complex (S11217) to determine if any mitigation measures can be practically incorporated into the project without compromising the historic integrity of the property; DeIDOT shall notify FHWA and DE SHPO of its findings.

FHWA and DeIDOT shall, in consultation with the DE SHPO and property owners, develop and implement mitigation plans for the Daisey-Timmons Property (S10763) and the Blakeley's Service Station (S11218), as follows:

A. Daisey-Timmons Property (S10763)

The measures defined below may be implemented alone or in combination with other measures.

DelDOT and FHWA shall, in the course of project design and/or construction, seek ways to avoid, minimize or mitigate the adverse effects to this property that may include, but are not necessarily limited to the following measures:

- redesigning the currently proposed overpass at Governor Stockley Road with modifications and/or design refinement at this location, including consideration of design exceptions or minimal design standards in travel, turning, or shoulder widths, as long as safety is not compromised; and,
- incorporating curbs, closed drainage sections, or appropriate barriers to minimize grading or clear zone requirements;
- vibration monitoring as further outlined in Part C of this stipulation;
- access or egress improvements upon the property provided that changes will only serve the existing dwelling and/or garage and is not supporting other improvement that could lead toward re-development of the parcel;
- installation of storm windows or improved insulation to help muffle noise;
- relocation of the dwelling, re-set on a new foundation further back from the road, or on a new parcel (this option would require further consultation with the DE SHPO concerning the new location for the dwelling and the methods of relocation);
- added landscaping or fencing;

B. Blakeley's Service Station (S11218)

DelDOT shall, in consultation with the DE SHPO and the property owner(s), develop conceptual plans for new travel information and/or directional signs along U.S. 113 and U.S. 9. DelDOT's Chief of Traffic will participate in the consultation. The intent of the roadside signs is to ensure that the typical traveler has sufficient, safe, and advanced knowledge that this property exists and remains open and accessible despite changes or access limitations resulting from the Project.

Conceptual plans will include suggested number, size, location, and content of the signs. If approved by the historic property owner(s), DelDOT shall install the signs in accordance with the agreed upon plans. DelDOT shall place the travel information or directional signs in a location that conform to DelDOT's Manual on Uniform Traffic Control Devices (MUTCD) ([http://deldot.gov/information/pubs\\_forms/manuals/de\\_mutcd/index.shtml](http://deldot.gov/information/pubs_forms/manuals/de_mutcd/index.shtml)), FHWA Policy, and Sussex County code, as applicable.

DelDOT shall install the travel information or directional signs prior to or as part of the Project.

Being within state right of way, the travel or directional signs will be permanent fixtures and will remain "in perpetuity" under management of DelDOT's Traffic or Sign Shop Section so long as this historic building, structure, or other fixtures associated with the property remain visible from the U.S. 113 corridor and remain open for public and commercial use. This will alert the vehicular traveler on how access can still be achieved to this facility.

The travel or directional signs for the Blakeley's Service Station (S11218) may be combined, updated, or replaced with similar amenities for other roadside businesses or attractions that may be installed during the Project or later in time.

#### C. Vibration Monitoring

DelDOT, in consultation with the DE SHPO and FHWA, will develop and implement a vibration monitoring plan to monitor the effects (or prevent further adverse effects) of the Project's construction on or adjacent to the Daisey-Timmons Property (S10763). Should an agreement be reached to monitor any other historic building as called upon by the DE SHPO, DelDOT will also include those additional properties.

As part of the vibration monitoring stipulation, DelDOT shall acquire the services of a professional engineer or other qualified expert, as appropriate, that is knowledgeable about the effects of construction vibration on historic buildings, to develop this plan. The plan will include a schedule for documenting the baseline conditions of the historic properties that will be monitored.

During construction, if the monitoring indicates that damage is occurring to historic properties subject to the monitoring plan, DelDOT shall instruct its contractor to cease construction in the immediate area. DelDOT shall then, in consultation with the DE SHPO, FHWA, and the property owners, acquire the services of a professional engineer and/or architect that is knowledgeable about the effects of construction vibration on historic buildings, to:

1. determine the nature and extent of the damage caused by the construction; and
2. alter any construction methods that may have caused the damage; and
3. develop and implement methods to stabilize and/or repair the damage, in accordance with the recommended approaches in the *Secretary of the Interior's Standards and Guidelines* or other agreed upon method.

#### D. Additional Architectural Studies

During the annual review of this MOA, mandated in Stipulation X, DelDOT shall consult with the DE SHPO and FHWA to determine the need for additional survey for buildings, structures, or districts that have come to meet the minimum fifty (50) year age criterion. If so needed, DelDOT shall identify and evaluate any additional such properties, and assess the effects of the Project thereon, following the process outlined for Archaeological Resources in Stipulations I.A. and I.B. of this MOA.

### III. Unexpected Discoveries

In the event that previously unidentified cultural resources are discovered or unanticipated effects to historic properties occur during construction, DelDOT shall instruct the contractor to cease construction in the immediate area, and immediately notify FHWA. FHWA shall comply with 36 CFR Part 800.13 by consulting with the DE SHPO. If said discovery or unanticipated effects pertain to resources of Native American affiliation, FHWA and DelDOT shall include the

Federally Recognized Indian Tribes in the consultation. The FHWA will notify the DE SHPO and the Federally Recognized Indian Tribes within one (1) working day of the discovery. The FHWA, DelDOT, and the DE SHPO will meet at the location of the discovery within forty-eight (48) hours of the initial notification to determine appropriate treatment of the discovery prior to resumption of construction activities within the area of discovery. If the affected resource is of Native American affiliation, FHWA shall first consult with the Federally Recognized Indian Tribes before implementing any such treatment option.

#### **IV. Disposal of Project Related Materials**

DelDOT shall review locations proposed for the disposal of materials produced by demolition, construction, excavation, and/or dredging associated with the Project to ensure these activities do not adversely affect historic properties. Disposal sites are to be considered part of the Area of Potential Effect. DelDOT will consult with the DE SHPO in cases where such activities may affect a historic property, and the contractor(s) could not identify an alternative location.

#### **V. Review of Project Plans**

DelDOT shall provide copies of the preliminary, semi-final, and final design plans of the Project to the DE SHPO. FHWA will notify the Federally Recognized Indian Tribes of the availability of the plans and provide copies (hard copies, CD's or electronic files depending on size and volume of plans) for their review and comment. DE SHPO and the Federally Recognized Indian Tribes will have thirty (30) days from the receipt of materials to provide comments on the plans. FHWA and DelDOT shall take into account any comments provided.

#### **VI. Subsequent Changes to the Project**

If DelDOT proposes any changes to the Project affecting location, design, methods of construction, materials, or footprint of the Project, DelDOT shall provide the DE SHPO, the Federally Recognized Indian Tribes, and other consulting parties identified later in time with information concerning the proposed changes. The DE SHPO and consulting parties will have thirty (30) days from the receipt of this information to comment on the proposed changes. DelDOT shall take into account any consulting party comments, prior to implementing such changes. Should changes occur, DelDOT, in consultation with the DE SHPO, may need to redefine the APE beyond the areas depicted in Attachment A. DelDOT shall consult with the DE SHPO to identify and evaluate historic buildings, sites, structures, and/or districts in any newly affected areas, and assess the effects of the project thereafter, following the process outlined for Archaeological Resources in Stipulations I.A. and I.B of this agreement, or as applicable under 36 CFR 800.13.

#### **VII. Administrative Stipulations**

##### **A. Personnel Qualifications**

All cultural resource work carried out pursuant to this agreement will be performed by or under the direct supervision of a person or persons meeting at a minimum the “*Secretary of the Interior’s Standards and Guidelines*” ([http://www.cr.nps.gov/local-law/Arch\\_Standards.htm](http://www.cr.nps.gov/local-law/Arch_Standards.htm)), formerly 61 CFR Appendix A. DeIDOT’s Environmental Studies personnel will have direct authority to select and authorize any and all qualified cultural resource management firms or subconsultants to carry out this work on an as-needed basis throughout the duration of the Project.

#### B. Survey and Data Recovery Standards

DeIDOT shall ensure that any and all cultural resource surveys and/or data recovery plans conducted pursuant to this MOA are done in accordance with the *Secretary of the Interior’s Standards and Guidelines for Identification and Evaluation*, and for *Archaeological Documentation*, as applicable, and in accordance with the DE SHPO’s *Guidelines for Architectural and Archaeological Surveys in Delaware* (1993) or its successor.

Survey proposals and data recovery plans shall include a research design that stipulates: objectives, methods, and expected results; production of draft and final reports; and preparation of materials for curation in accordance with Stipulation I.E., including budgeting for initial conservation assessments and treatment. Additional requirements for data recovery plans are found in Stipulation I.B. of this Agreement.

All data recovery plans shall also take into account the Advisory Council on Historic Preservation’s guidance for *Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites*. Reports will meet professional standards set forth by the Department of the Interior’s “*Format Standards for Final Reports of Data Recovery Program*” (42 FR 5377-79).

All data recovery plans, public outreach, or future consultation shall also follow and/or consider any supplemental guidance and provisions provided by, but not limited to, the American Association of State Highway Transportation Officials, FHWA, Transportation Research Boards, National Park Service, ACHP or recognized academic journals or professional organizations as identified by DeIDOT and/or the DE SHPO.

DeIDOT shall ensure that all draft and final cultural resource reports are provided to the FHWA and DE SHPO within two (2) years of the completion of any fieldwork. Draft and final cultural resource reports relevant to Native American Sites will also be provided to the Federally Recognized Indian Tribes.

### **VIII. Dispute Resolution**

Should any signatory to this Agreement object in writing to any plans, specifications or actions proposed or carried out pursuant to this agreement, FHWA shall consult with the objecting party to resolve the objection. If FHWA determines that the objection cannot be resolved, FHWA shall

forward all documentation relevant to the dispute to the ACHP. Within thirty (30) days after receipt of all pertinent documentation, the ACHP will either:

- A. Advise FHWA that the ACHP concurs in FHWA's proposed response to the objection, whereupon FHWA shall respond to the objection accordingly;
- B. Provide FHWA with recommendations, which FHWA will take into account in reaching final decision regarding the dispute; or
- C. Notify FHWA that it will comment pursuant to 36 CFR 800.7(a) and proceed to comment. Any ACHP comment provided in response to such a request will be taken into account by FHWA in accordance with 36 CFR 800.7(c)(4) with reference to the subject of the dispute.

Should the ACHP not exercise one of the above options within thirty (30) days after receipt of all pertinent documentation, FHWA may assume the ACHP's concurrence in its proposed response to the objection.

Any recommendation or comment provided by the ACHP will be understood to pertain only to the subject of the dispute; FHWA's responsibility to carry out all actions under this MOA that are not the subject of the objection will remain unchanged.

#### **IX. Duration**

This MOA shall remain in force until its Stipulations have been fulfilled. This time period shall not exceed seven (7) years from the date of the final signature. If within six (6) months of the end of this seven year period, stipulations remain unfulfilled, the parties to this Agreement will consult to determine if extension or other amendment of the Agreement is needed. No extension or amendment will be considered in effect unless all the signatories to the MOA have agreed to it in writing.

#### **X. Review of Implementation**

FHWA, DelDOT, and the DE SHPO shall review the project annually, to monitor progress of the implementation of the terms of this MOA. By agreement, DelDOT, DE SHPO and FHWA will meet in January of each year to discuss and report progress of active MOA's including this project. FHWA will then notify the Federally Recognized Indian Tribes each year of the status and progress of active projects and MOA's involving consultation with the Federally Recognized Indian Tribes.

#### **XI. Amendments**

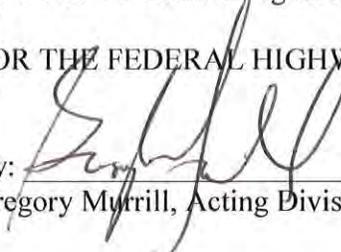
Any party to this Agreement may propose to FHWA that the Agreement be amended, whereupon FHWA shall consult with the other parties to consider such an amendment, in accordance with 36 CFR Part 800.6(c)(7).

**XII. Termination**

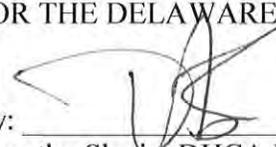
- A. If the FHWA or DeIDOT determines that it cannot implement the terms of this MOA, or the DE SHPO determines that the MOA is not being properly implemented, FHWA, DeIDOT, or the SHPO may propose to the other parties to this MOA that it be terminated.
- B. The party proposing to terminate this MOA shall notify all parties to this MOA, explaining the reasons for termination and affording them at least thirty (30) days to consult and seek alternatives to termination. The parties shall then consult.
- C. Should all consultation fail, FHWA or the DE SHPO may terminate the MOA by so notifying all parties in writing.
- D. Should this MOA be terminated, FHWA shall either:
  - 1. Consult in accordance with 36 CFR 800.6(a)(1) to develop a new MOA or;
  - 2. Request the comments of the ACHP pursuant to 36 CFR 800.7(a)

Execution of this MOA by the FHWA, DE SHPO, and DeIDOT and implementation of its terms is evidence that the FHWA has afforded the ACHP an opportunity to comment on the U.S. 113 North/South Project in the Georgetown area and that the FHWA has taken into account the effects of the undertaking on historic properties.

FOR THE FEDERAL HIGHWAY ADMINISTRATION

By:  \_\_\_\_\_ Date: 9/10/12  
Gregory Murrill, Acting Division Administrator, FHWA DelMar Divison

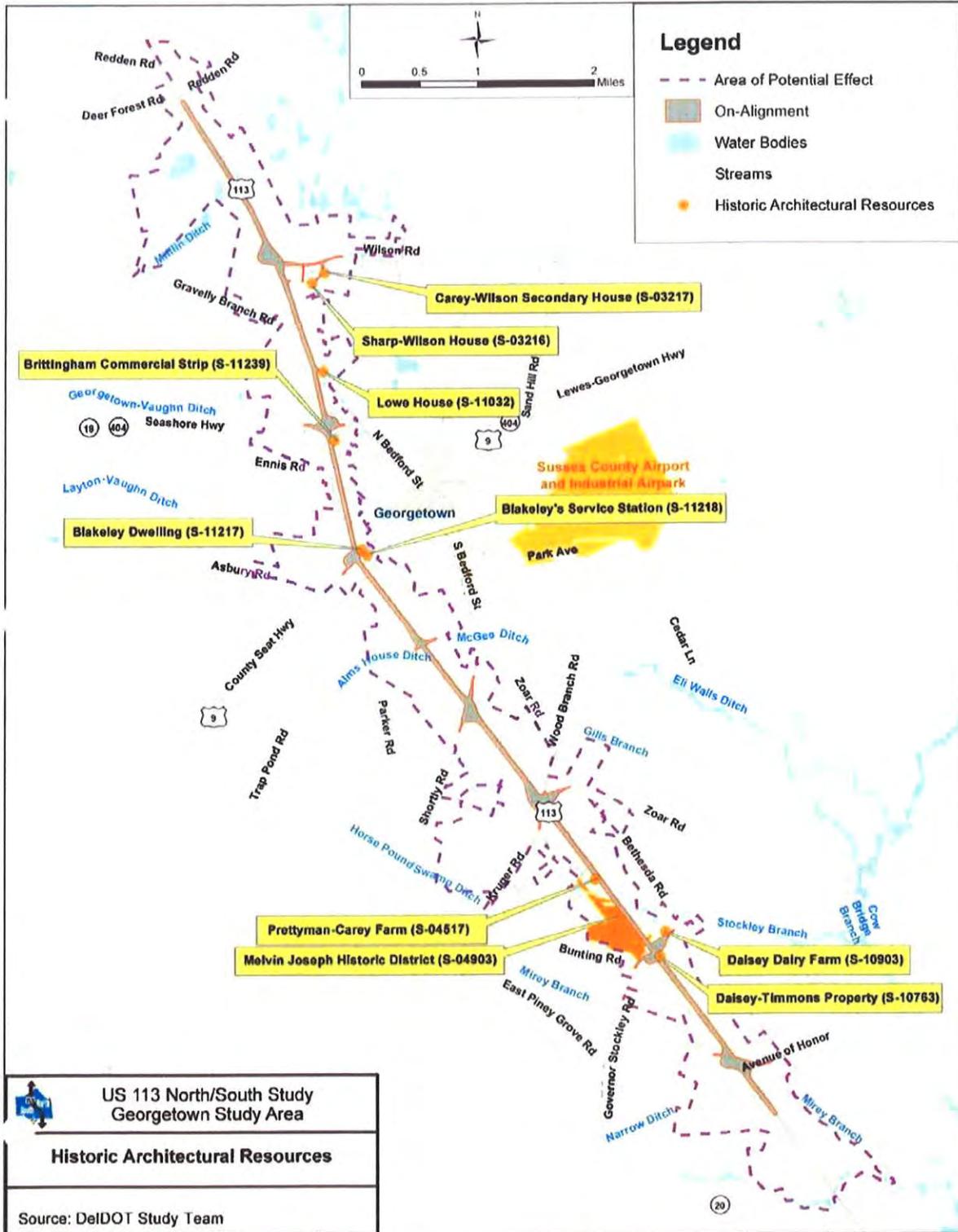
FOR THE DELAWARE STATE HISTORIC PRESERVATION OFFICER

By:  \_\_\_\_\_ Date: 9/12/12  
Timothy Slavin, DHCA Director and State Historic Preservation Officer

DELAWARE DEPARTMENT OF TRANSPORTATION

By: Natalie Barnhart \_\_\_\_\_ Date: 9/5/12  
Natalie Barnhart, DeIDOT Chief Engineer

## Attachment A For US 113 North/South Study – Georgetown Area Project



US 113 North/South Study Georgetown Study Area
<b>Historic Architectural Resources</b>
Source: DeIDOT Study Team



STATE OF DELAWARE  
**DEPARTMENT OF TRANSPORTATION**

800 BAY ROAD  
P.O. BOX 778  
DOVER, DELAWARE 19903

CAROLANN WICKS, P.E.  
SECRETARY

June 29, 2010

Mr. Timothy Slavin, Director  
Division of Historic and Cultural Affairs  
The Green, Suite 21A  
Dover, DE 19977

Dear Mr. Slavin:

The Delaware Department of Transportation (DelDOT) Environmental Studies Section has received the draft National Register Eligibility Forms for architectural properties in the US 113 Georgetown Study Area. The project is funded under State Project #22-127-01. The project is also considered a federal undertaking subject to NEPA requirements as well as Section 106 of the National Historic Preservation Act of 1966 (as amended). The Federal Highway Administration will principally fund construction and right of way efforts in the future.

Based on the undertaking's potential to affect historic properties, DelDOT, in consultation with your office, retained services of John Milner Associates, Inc., to conduct the intensive architectural survey, including preparing National Register eligibility determinations for properties constructed pre-1962. The enclosed draft for individual properties is the result of those continuing identification and evaluation efforts as well as agency re-submittals. Following completion review of the draft and a response to our accompanied comments, we would like to comprehensively tie all eligibility assessments and National Register nomination forms into one final comprehensive package.

At this stage and for project development purposes, we have established a buffer of 600 feet (1200' total) around all proposed improvements for the planning level APE. The APE will be confirmed by our office and consulted with yours to consider any additional potential visual and/or audible impacts that may be experienced beyond the initial buffer. We will keep you advised as a field trip for continued Section 106 consultation is needed in the coming weeks.

Our Department, as delegated by FHWA, is proceeding the eligibility nominations under 36 CFR 800.4(b)(2) for a 30-day review. Written and official comments, if any, should be offered to this office and FHWA during this time period.

On behalf of the Federal Highway Administration, it is also this agency's intent to use the NEPA process (under the Environmental Assessment) for Section 106 purposes. Thus, it is our intention to notify you and the Council in advance that compliance measures shall take place under 38 CFR 800.8. To date, no consulting parties have been directly identified. However, we do



Letter to T. Slavin

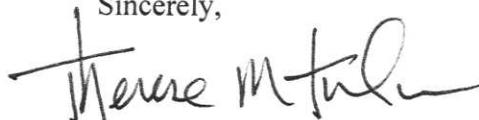
6/29/2010

Page 2 of 2

anticipate Native American involvement in the development with an anticipated Memorandum of Agreement (i.e. since archaeological studies have been limited). These federally recognized groups may become a formal consulting party when sites have been identified with impacts. The effort to confirm their level of involvement is currently underway with FHWA. With this, we will ensure that proper standards for developing our environmental documents will comply with Section 106.

If there are any questions, please contact Michael Hahn at (302) 760-2131. Thank you again for your continued cooperation.

Sincerely,



Therese M. Fulmer, Manager  
Environmental Studies

TF/mch

(attachments)

CC: Dan Montag, FHWA  
Nick Blendy, FHWA  
Reid Nelson, Advisory Council on Historic Preservation  
Gwen Davis, DE SHPO  
Joan Larrivee, DE SHPO  
Dan Parsons, Sussex County Department of Engineering – with copy  
Monroe Hite, Project Manager, South Project Development – with copy  
Michael Hahn, Environmental Studies  
Jon Schmidt, Environmental Studies  
Kevin Cunningham, Environmental Studies  
David Clarke, Environmental Studies  
William Hellmann, RK & K Engineers, Inc.  
Jeff Ridner, Whitman, Renquardt & Associates, Inc.  
Grace Ziesing, John Milner Associates, Inc. – with copy  
File



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

**DelMar Division**

October 26, 2011

300 South New Street, Suite 2101  
Dover, DE 19904  
(302) 734-5323  
(302) 734-3066  
<http://www.fhwa.dot.gov/demddiv/>

In Reply Refer To:  
HAD-DE

President Kerry Holton  
The Delaware Nation  
31064 State Highway 281  
Anadarko, OK 73005

Dear Mr. Holton:

The Federal Highway Administration (FHWA) welcomes the Delaware Nation as a consulting party to the federally funded project: **US 113 North/South Study, Georgetown Area, Sussex County, State Contract T200212701, Federal-Aid Number: to be determined.** Enclosed is the project's Draft Memorandum of Agreement (MOA). The draft MOA is similar to recent MOA's provided to you as a consulting party for projects in Delaware. Project mapping is appended to the Draft MOA.

We have included the Delaware Nation intent to participate in the consultation on Page 3 of the Draft MOA based on similar consultations for all projects in Delaware and that FHWA and DelDOT will notify the Delaware Nation and Delaware Tribe of Indians as consulting parties. Furthermore, the Delaware Department of Transportation (DelDOT) on behalf of FHWA will notify the Delaware Nation, Delaware Tribe of Indians, and the Stockbridge-Munsee Tribe of discovery of Native American archaeological sites, investigations, and treatments as provided for under the stipulations of the Draft MOA.

We trust the information provided is adequate for your review as a consulting party to the US 113 Georgetown Area Project and Draft MOA. Please advise us otherwise after review of the enclosure.

We respectfully request to be notified of any Delaware Nation comments by November 30, 2011. If you have any questions or would like to further discuss, please contact Nick Blendy at (302) 734-2966 or by email at [nick.blendy@dot.gov](mailto:nick.blendy@dot.gov).

Sincerely yours,

*for* Hassan Raza, P.E.  
Division Administrator

Enclosure

cc: Gwen Davis, Deputy DE SHPO  
David Clarke, DelDOT  
Kevin Cunningham, DelDOT  
Terry Fulmer, DelDOT  
Mike Simmons, DelDOT  
Monroe Hite, DelDOT  
Ryan O'Donoghue, FHWA  
File # T200212701



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

DelMar Division

October 26, 2011

300 South New Street, Suite 2101  
Dover, DE 19904  
(302) 734-5323  
(302) 734-3066  
<http://www.fhwa.dot.gov/demddiv/>

In Reply Refer To:  
HAD-DE

Dr. Brice Obermeyer  
Delaware Tribe of Indians  
Department of Sociology & Anthropology  
Emporia State University  
Roosevelt Hall, Room 121  
1200 Commercial, Box 4022  
Emporia KS 66801

Dear Dr. Obermeyer:

The Federal Highway Administration (FHWA) welcomes the Delaware Tribe of Indians as a consulting party to the federally funded project: **US 113 North/South Study, Georgetown Area, Sussex County, State Contract T200212701, Federal-Aid Number: to be determined.** Enclosed is the project's Draft Memorandum of Agreement (MOA). For archaeological resources, the draft MOA is similar to recent MOA's provided to you as a consulting party for projects in Delaware. Project location mapping is appended to the Draft MOA.

We have included the Delaware Tribe of Indians intent to participate in the consultation on Page 2 of the Draft MOA based on similar consultations for all projects in Delaware and that FHWA and DelDOT will notify the Delaware Nation and Delaware Tribe of Indians as consulting parties. Furthermore, the Delaware Department of Transportation (DelDOT) on behalf of FHWA will notify the Delaware Nation, Delaware Tribe of Indians, and the Stockbridge-Munsee Tribe of discovery of Native American archaeological sites, investigations, and treatments as provided for under the stipulations of the Draft MOA.

We trust the information provided is adequate for your review as a consulting party to the Dover Connector Project and Draft MOA. Please advise us otherwise after review of the enclosure.

We respectfully request to be notified of any Delaware Tribe of Indians comments by November 30, 2011. If you have any questions or would like to further discuss, please contact Nick Blendy at (302) 734-2966 or by email at [nick.blendy@dot.gov](mailto:nick.blendy@dot.gov).

Sincerely yours,

Hassan Raza, P.E.  
Division Administrator

Enclosure

cc: Gwen Davis, Deputy DE SHPO  
David Clarke, DelDOT  
Kevin Cunningham, DelDOT  
Terry Fulmer, DelDOT  
Mike Simmons, DelDOT  
Monroe Hite, DelDOT  
Ryan O'Donoghue, FHWA  
File # T200212701



## APPENDIX E: NOISE TECHNICAL REPORT





## I. INTRODUCTION

This document details the evaluation of potential noise impacts caused by the US 113 North/South Georgetown Area project. Following a discussion of noise/activity relationships, a summary is presented. This includes existing noise conditions and development of projected noise that may result upon implementation of a build alternative. Impacts to noise sensitive receptors are identified, and mitigation for impacts is discussed.

The Federal Highway Administration (FHWA) has issued guidelines for noise evaluation as established in Title 23 of the Code of Federal Regulations (CFR) Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. Highway traffic noise studies, noise abatement procedures, coordination requirements and design noise levels in CFR Part 772 constitute the noise standards mandated by 23 U.S.C. 109(i). Design noise levels for various types of activity (land use) categories are summarized in the following section.

### Criteria for Determining Noise Impacts

To describe noise environments and to assess impact on noise sensitive areas, a frequency weighting measure that simulates human subjective response to noise is customarily selected. A-weighted decibels (dBA) best approximate the frequency response of the human ear and have been found to correlate strongly with human perceptions of the annoying aspects of noise, particularly from traffic noise sources. Consequently, dBA are the values cited by FHWA in its noise criteria indicated in Table 1.

Because noise intensity fluctuates with time, an equivalent sound level (Leq) is commonly used as the descriptor of environmental noise in the United States. The Leq is the steady-state, A-weighted sound level which contains the same amount of acoustical energy as the actual time-varying A-weighted sound level over a specified period of time. For traffic noise, a one-hour period is typically used and reported as an hourly equivalent sound level, Leq(h).

The design noise levels provided in **Table 1** have been used to determine highway traffic noise impacts associated with different land uses or activities in existence at the time of project design. Noise-sensitive land uses potentially affected by the proposed improvements are in activity categories B, C, and E. For activity categories B and C, the Noise Abatement Criteria (NAC) is an Leq equal to 67 dBA at exterior locations for residential areas, active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings. For activity category E, the Noise Abatement Criteria (NAC) is an Leq equal to 72 dBA at exterior locations for hotels, motels, offices, restaurants/bars, and developed lands, properties, or activities not included in A-D or F. When the predicted design-year build alternative noise levels in the project area approach or exceed the NAC, noise impacts occur, and consideration of traffic noise reduction measures is necessary.



**Table 1: FHWA Noise Abatement Criteria/Activity Relationships**

Noise Abatement Criteria (NAC) Hourly A- Weighted Sound Level in Decibels (dBA) <sup>1</sup>			
Activity Category	Leq(h)	L <sub>10</sub> (h) <sup>2</sup>	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Residential.
C	67 (Exterior)	70 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	55 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	75 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A–D or F.
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	-	Undeveloped lands.

<sup>1</sup> Either Leq(h) or L<sub>10</sub>(h) (but not both) may be used on a project.

<sup>2</sup> The Leq(h) and L<sub>10</sub>(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.

<sup>3</sup> Includes undeveloped lands permitted for this activity category.

## Analysis Procedures and Methodology

This analysis was conducted in accordance with 23 CFR 772 and current DeIDOT procedures and policies including the State of Delaware Highway Transportation Noise Policy, Policy Implement No. D-03, Revised 7/5/11.

Noise level monitoring was conducted at thirty two (32) sites within the project area in April 2007. FHWA Traffic Noise Model (TNM) version 2.5 was used to create a calibration model. The model incorporates vehicle noise emission levels, updated for modern vehicle classification, traffic speed and traffic volume, sound propagation factors from atmospheric absorption, divergence, intervening ground, intervening barriers, and intervening rows of buildings and areas of heavy vegetation. The TNM calibration model determines the legitimacy of predicted noise levels and noise abatement measures by evaluating the model's ability to reproduce the measured



noise levels. Field data was input to the TNM calibration model and the model was considered calibrated when modeled noise levels were within three (3) dBA of measured noise levels.

Once the model is calibrated, the proposed roadway alignment and design-year traffic data are input for the Build alternative to determine impacts due to traffic generated noise and to determine the effectiveness of abatement measures if necessary.

## II. NOISE ANALYSIS

### TNM Introduction

The Noise Analysis consists of three parts: (1) TNM Calibration, (2) Impact and Mitigation Analysis, and (3) Mitigation Feasibility and Reasonableness Evaluation.

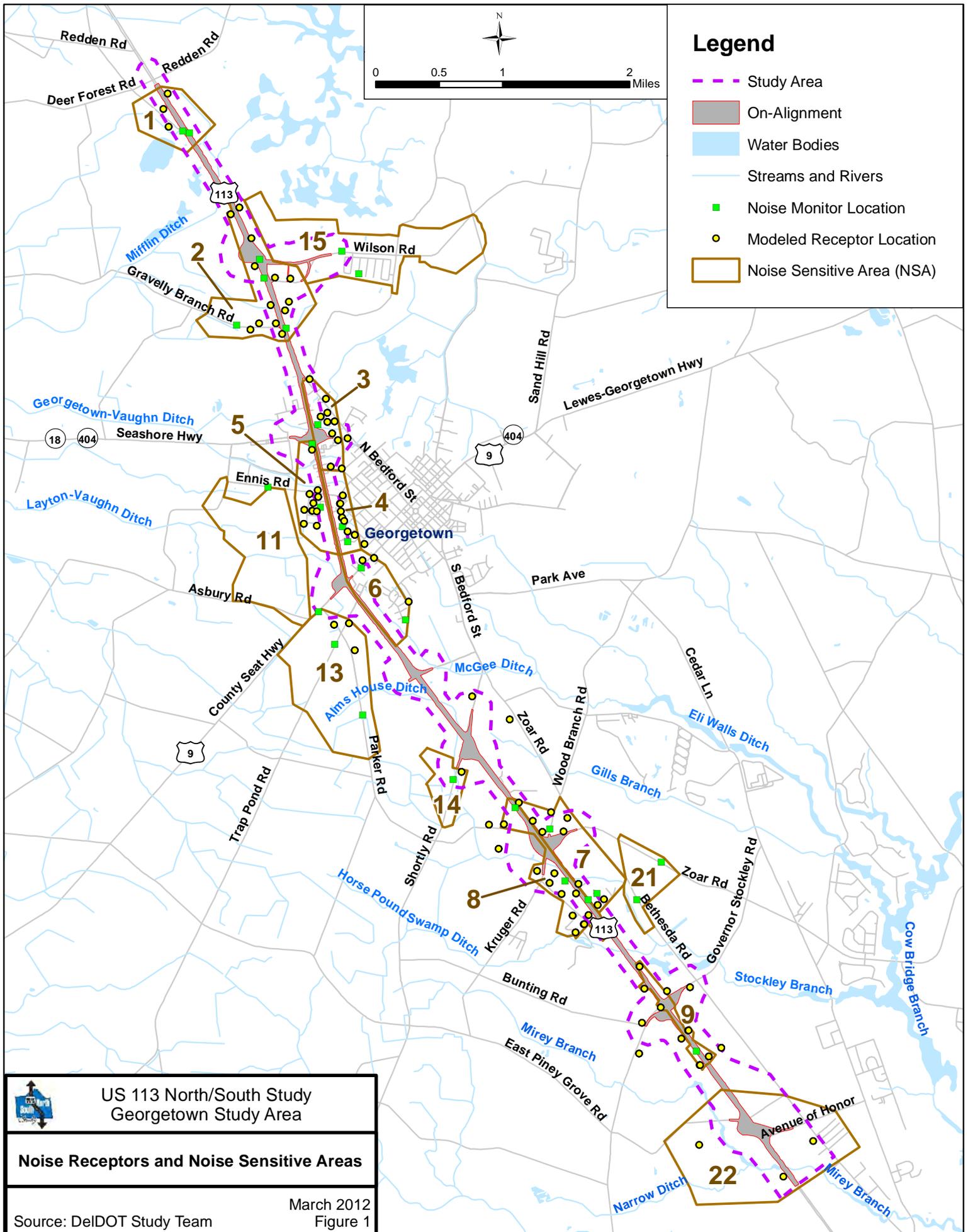
### TNM Calibration

The TNM calibration model determines the legitimacy of the predicted noise levels and sound barrier design by evaluating the model's ability to reproduce field measured noise levels.

Short-term noise level monitoring was conducted in April 2007 at thirty two (32) sites within the project area, which consists primarily of residential and commercial properties along US 113. These sites were selected to represent areas of "typical human use" on property adjacent to the proposed improvements. At the time that noise monitoring was conducted, off-alignment and on-alignment design were under consideration. Since that time, off-alignment designs were eliminated from consideration. Ten (10) noise measurement locations were chosen for their close proximity to the off-alignment design but are outside the area of influence of traffic-generated noise from existing US 113 or the on-alignment Build alternative. Noise monitoring locations are shown on **Figure 1**. These ten locations can be found in **Table 2** and **Appendix C** and **Appendix D** but are not otherwise mentioned because they are not relevant to this on-alignment noise analysis.

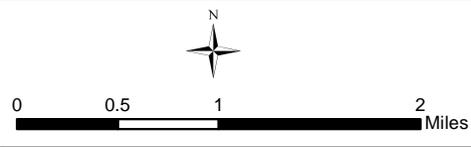
Twenty one Noise Sensitive Areas (NSAs) were identified within the study area, as shown on **Figure 1**. An NSA is an area or group of noise sensitive land uses with similar exposure to highway traffic-generated noise.

These measurements and counts were conducted in eight traffic monitoring sessions (TMS) designated TMS01-TMS08. The results of the TMS can be found in **Appendix B**. During each TMS, noise measurements were conducted concurrently with traffic volume and speed counts along US 113. Traffic volumes and speed count data used for TNM calibration can be found in **Appendix C**. Photographs of noise measurement locations can be found in **Appendix A**. **Table 2** presents the location, date, time, and noise levels of the short-term field measurements.



### Legend

- Study Area
- On-Alignment
- Water Bodies
- Streams and Rivers
- Noise Monitor Location
- Modeled Receptor Location
- Noise Sensitive Area (NSA)



<b>US 113 North/South Study Georgetown Study Area</b>
<b>Noise Receptors and Noise Sensitive Areas</b>
Source: DelDOT Study Team <span style="float: right;">March 2012 Figure 1</span>



**Table 2: Field Ambient Noise Measurements**

Receptor Number	Community or Historic Name	Address or Property Description	Date	Time	Measured Ambient Noise Level (dBA)
M-01A	Kellers Acres	18356 Dupont Boulevard	4/3/2007	08:40-09:00	71
M-01B	Across from Kellers Acres	18375 Dupont Boulevard	4/3/2007	08:40-09:00	69
M-02A	n/a	18947 Dupont Boulevard	4/3/2007	08:40-09:00	67
M-02B	n/a	East of US 113 across from Wilson Hill Road	4/3/2007	09:35-09:55	70
M-02C	n/a	19024 Dupont Boulevard	4/3/2007	08:40-09:00	72
M-02D	n/a	17047 Wilson Hill Road	4/3/2007	09:35-09:55	55
M-03A	Ervin Goff Subdivision	Intersection of Gordy Street and Goff Drive	4/3/2007	10:50-11:10	54
M-04A	n/a	Edward Street between US 113 and Dunbarton Apartments	4/3/2007	12:00-12:20	59
M-04B	n/a	US 113 and Walter Street	4/3/2007	12:00-12:20	50
M-05A	Ed Russel Development	20618 Dupont Boulevard	4/3/2007	10:50-11:10	68
M-05B	Swain Acres	East of Truitt Avenue north of Nelson Avenue	4/3/2007	12:00-12:20	inv
M-06A	n/a	505 W Market Street	4/3/2007	13:40-14:00	62
M-06B	Cinderberry Estates	6 Cranberry Court	4/3/2007	13:40-14:00	47
M-07A	n/a	24306 Dupont Boulevard	4/3/2007	17:10-17:30	58
M-07B	n/a	24629 Dupont Boulevard	4/3/2007	16:10-16:30	73
M-07C	n/a	24945 Betts Road	4/3/2007	16:10-16:30	53
M-08A	n/a	24306 Dupont Boulevard	4/3/2007	17:10-17:30	68
M-08B	Julian Acres	22188 Melson Road	4/3/2007	16:10-16:30	60
M-09A	n/a	26154 Dupont Boulevard	4/3/2007	15:00-15:20	70
M-10A	n/a	18735 Seashore Highway	4/3/2007	10:50-11:10	65
M-11A	n/a	20323 Ennis Road	4/3/2007	12:00-12:20	54
M-12A	n/a	21994 Vaughn Road	4/3/2007	10:50-11:10	55
M-12B	n/a	23098 Asbury Road	4/3/2007	15:00-15:20	56
M-13A	n/a	20130 County Seat Highway	4/3/2007	13:40-14:00	70
M-13B	n/a	E Trap Pond Road west of Parker Road	4/3/2007	13:40-14:00	58
M-13C	n/a	23105 Parker Road	4/3/2007	15:00-15:20	51
M-14A	n/a	Shortly Road at Sussex Conservation Center	4/3/2007	15:00-15:20	58
M-15A	n/a	20347 Wilson Road	4/3/2007	09:35-09:55	58
M-15B	County Seat Gardens	1 Maple Street	4/3/2007	09:35-09:55	48
M-20A	Golf Village	1 Fairway East Drive	4/3/2007	17:10-17:30	50
M-21A	n/a	23073 Zoar Road	4/3/2007	17:10-17:30	70
M-21B	n/a	24752 Bethesda Road	4/3/2007	16:10-16:30	56

The field ambient noise measurements were used to create a calibrated model (see Appendix D for TNM input details). The TNM is developed using the existing site conditions, collected traffic data, and measured noise levels at predetermined locations throughout the communities. The TNM is considered calibrated when the modeled noise levels are within 3 dBA of the measured noise levels. **Table 3** shows that 21 of the 22 receivers are considered to be calibrated. Receiver M-05B produced a 7 dBA difference between the measured and modeled values but is



considered invalid due to its close proximity to construction and stockpiles as well as its location along a trench line. The model is considered to be calibrated.

**Table 3: TNM Calibration**

Traffic Monitoring Session	Receptor Number	Address or Property Description	Measured Noise Level (dBA)	Modeled Noise Level (dBA)	Difference (dBA)	Calibrating Model Point (Yes) or Non-Calibrating (No)	
TMS01	M-02A	18947 Dupont Hwy	67	69	2	Yes	
TMS01	M-01B	18375 Dupont Hwy	69	68	-1	Yes	
TMS01	M-01A	18356 Dupont Hwy	71	71	0	Yes	
TMS01	M-02C	19024 Dupont Hwy (south of this res.)	72	69	-3	Yes	
TMS02	M-15A	20267 Wilson Rd	58	61	3	Yes	
TMS02	M-02D	17047 Wilson Hill Rd	55	53	-2	Yes	
TMS02	M-02B	20083 Dupont Hwy (2 props from this)	70	69	-1	Yes	
TMS03	M-03A	0 Gordy St. & Goff Dr.	54	57	3	Yes	
TMS03	M-05A	20618 Dupont Hwy	68	65	-3	Yes	
TMS04	M-04B	0 Walter St. next/west of 407	50	53	3	Yes	
TMS04	M-04A	0 Edward St. at Dunbarton Apts.	59	57	-2	Yes	
TMS04	M-05B	East of Truitt Avenue north of Nelson Avenue	52	59	INVALID		
TMS05	M-06A	423 West Market St	62	65	3	Yes	
TMS05	M-06B	6 Cranberry Ct. - Cinderberry Est.	47	50	3	Yes	
TMS06	M-14A	23818 Shortly Rd	58	55	-3	Yes	
TMS06	M-09A	26154 DuPont Hwy	70	73	3	Yes	
TMS07	M-07B	24643 DuPont Hwy	73	72	-1	Yes	
TMS07	M-08B	22188 Melson Dr	60	63	3	Yes	
TMS07	M-07C	24945 Betts Ln	53	56	3	Yes	
TMS07	M-21B	24752 Bethesda Rd	56	57	1	Yes	
TMS08	M-07A	24306 DuPont Hwy	58	55	-3	Yes	
TMS08	M-08A	24112 DuPont Hwy	68	71	3	Yes	

### Impact and Mitigation Analysis

Future peak-volume traffic is used in the calibrated model to predict future noise levels at the desired receiver locations. The resulting future noise levels are used to determine the number and location of impacted properties. These impacts influence the design of mitigation alternatives if they are warranted.

#### Build Alternative

The Refined On-alignment alternative consists of:

- Widening US 113 to provide one additional lane northbound and southbound
- Grade separated interchanges at eight locations



- Eliminating all traffic signals and unsignalized crossovers along US 113
- Widening existing shoulders to 15 feet to maintain right-in/right-out movements for existing access and consolidating access points where possible

This alternative begins just south of Woodlawn Memorial Cemetery, approximately one mile north of the Millsboro town limits. The project extends north for approximately 10.3 miles to a location 2.5 miles north of Georgetown near the intersection of East Redden Road/Deer Forest Road. Along US 113, the existing four-lane roadway would be widened to provide six 12-foot lanes and a 15-foot outside shoulder/auxiliary lane. The intent of this alternative is to eliminate left-turns and cross traffic at all signalized and unsignalized intersections throughout the Georgetown area, maintain right-in/right-out access for existing roadside development, consolidate existing access, and limit future access. There would be grade separated interchanges at the following locations: Piney Grove Road/Avenue of Honor, Governor Stockley Road, Speedway Road/Alms House Road/Kruger Road, Shortly Road/South Bedford Street, Arrow Safety Road (partial interchange), US 9, SR 18/SR 404, and Wilson Road. There would be no off-alignment construction, except for interchanges and their approaches.

### **Predicted Noise Levels**

FHWA requires noise to be analyzed in the “loudest noise hour” of the day. As noted previously, ambient measurements may not reflect the loudest hour of the day. The loudest noise hour traffic condition represents a combination of vehicle volume, classification mix and speed to produce the worst traffic noise condition that would be experienced along the project corridor. For existing conditions within the project area, the loudest noise hour typically occurs during the highest traffic volume conditions along existing US 113.

Future noise levels were predicted at receptor locations within influence of traffic noise for the No-build alternative and the Build alternative. Traffic volumes for the Build and No-build alternatives were predicted for the design-year 2030. Design-year 2030 traffic volumes for a Summer Weekday were determined to represent the loudest noise condition because this case represents a combination of high overall vehicle volumes with the highest truck percentage.

Predicted existing and future noise levels for the No-Build and Build Alternatives are shown in **Table 4**. Predicted noise levels were calculated to 0.1 dBA and then rounded to the nearest integer.



**Table 4: Predicted Design-Year Noise Levels**

Noise Sensitive Area	Receptor Number	Community or Historic Name	Address or Property Description	Existing Loudest Hour Noise Level (dBA)	Design Year 2030	
					No-Build Noise Level (dBA)	Build Noise Level (dBA)
1	M-01A (SB)	Kellers Acres	18356 Dupont Boulevard	69	72	77
	M-01B (NB)	Across from Kellers Acres	18375 Dupont Boulevard	66	70	77
	R101 (NB)	Across from Kellers Acres	14131 Redden Road	55	58	73
	R102 (SB)	Kellers Acres	18317 McColleys Chapel Road	59	62	70
	R103 (SB)	Kellers Acres	18386 McColleys Chapel Road	57	60	64
2	M-02A (NB)	n/a	18947 Dupont Boulevard	68	71	78
	M-02B (NB)	n/a	East of US 113 across from Wilson Hill Road	70	73	78
	M-02C (SB)	n/a	19024 Dupont Boulevard	67	70	78
	M-02D (SB)	n/a	17047 Wilson Hill Road	55	55	57
	R201 (SB)	n/a	West of US 113 3000 ft North of Wilson Road	65	68	73
	R202 (NB)	n/a	East of US 113 3000 ft North of Wilson Road	63	66	71
	R203 (NB)	n/a	18857 Dupont Boulevard	67	71	75
	R204 (SB)	n/a	18996 Dupont Boulevard	64	67	73
	R205 (NB)	n/a	19805 Wilson Road	59	63	67
	R206 (NB)	n/a	19857 Wilson Road	54	59	57
	R207 (NB)	Green Pines	19855 Pine Tree Lane	54	58	63
	R208 (NB)	n/a	20059 Dupont Boulevard	61	64	71
	R209 (SB)	n/a	20002 Dupont Boulevard	65	68	73
	R210 (SB)	n/a	17098 Wilson Hill Road	47	50	55
R211 (SB)	n/a	17127 Wilson Hill Road	51	54	59	
R212 (SB)	n/a	17205 Wilson Hill Road	63	67	73	
R213 (SB)	n/a	20146 Dupont Boulevard	68	71	76	
3 (NB)	M-03A	Ervin Goff Subdivision	Intersection of Gordy Street and Goff Drive	59	61	67
	R301	n/a	Intersection of N Bedford Street and Donovans Road	59	62	67
	R302	n/a	650 N Bedford Street	55	57	59
	R303	n/a	641 N Bedford Street	55	58	59
	R304	n/a	12 Gordy Street	55	58	62
	R305	n/a	633 N Bedford Street	55	58	58
	R306	n/a	3 Mae Street	54	56	60
	R307	Howard Cooke Subdivision	28 Bridgeville Road	58	60	61
	R308	n/a	Bridgeville Road at N Bedford Street	60	62	61
	R309	n/a	South of Bridgeville Rd between US 113 and N Bedford St	60	61	61
	R310	n/a	20 Bramhall Street	51	53	58
R311	n/a	52 Bramhall Street	56	59	66	



**Table 4: Predicted Design-Year Noise Levels**

Noise Sensitive Area	Receptor Number	Community or Historic Name	Address or Property Description	Existing Loudest Hour Noise Level (dBA)	Design Year 2030	
					No-Build Noise Level (dBA)	Build Noise Level (dBA)
4 (NB)	M-04A	n/a	Edward Street between US 113 and Dunbarton Apartments	57	59	65
	M-04B	n/a	US 113 and Walter Street	54	57	64
	R401	Dunbarton Apartments	Dunbarton Apartments	52	55	61
	R402	Dunbarton Apartments	Dunbarton Apartments	55	57	65
	R403	Dunbarton Apartments	Dunbarton Apartments	56	58	66
	R404	Dunbarton Apartments	Dunbarton Apartments	56	58	66
	R405	Dunbarton Apartments	Dunbarton Apartments	55	57	64
	R406	n/a	312 Nancy Street	53	56	63
	R407	n/a	406 Walter Street	50	52	59
R408	n/a	309 W Laurel Street	50	52	56	
5 (SB)	M-05A	Ed Russel Development	20618 Dupont Boulevard	64	67	(take)
	M-05B	Swain Acres	East of Truitt Avenue North of Nelson Avenue	Invalid		
	R501	Ed Russel Development	20650 Dupont Boulevard	66	68	(take)
	R502	Swain Acres	204 Ennis Street	60	63	71
	R503	Swain Acres	Linden Avenue and Ennis Road	53	55	62
	R504	Swain Acres	20241 Ennis Road	59	62	70
	R505	Swain Acres	103 Highland Avenue	54	56	63
	R506	Swain Acres	108 Linden Avenue	50	52	58
	R507	Swain Acres	105 Nelson Avenue	51	54	61
	R508	Swain Acres	101 Nelson Avenue	54	57	64
	R509	Shepherd's Point	Linden Avenue and Wingate Drive	49	51	57
R510	Shepherd's Point	116 Truitt Avenue	52	54	62	
6 (NB)	M-06A	n/a	505 W Market Street	61	62	64
	M-06B	Cinderberry Estates	6 Cranberry Court	50	52	57
	R601	Evergreen Lawns	418 W Market Street	56	58	61
	R602	West End Terrace	401 W Market Street	57	58	60
	R603	Cinderberry Estates	14 Boisenberry Lane	47	49	53



**Table 4: Predicted Design-Year Noise Levels**

Noise Sensitive Area	Receptor Number	Community or Historic Name	Address or Property Description	Existing Loudest Hour Noise Level (dBA)	Design Year 2030	
					No-Build Noise Level (dBA)	Build Noise Level (dBA)
7 (NB)	M-07A	n/a	24306 Dupont Boulevard	69	72	62
	M-07B	n/a	24629 Dupont Boulevard	73	75	80
	M-07C	n/a	24945 Betts Road	56	59	63
	R701	n/a	24113 Dupont Boulevard	67	69	74
	R702	n/a	24203 Dupont Boulevard	66	69	74
	R703	n/a	24306 Dupont Boulevard	59	62	56
	R704	n/a	24220 Wood Branch Road	65	67	72
	R705	Rawlins Manor	22446 Zoar Road	52	54	55
	R706	Rawlins Manor	Speedway Road	63	64	63
	R707	n/a	24559 Dupont Boulevard	68	71	73
8 (SB)	M-08A	n/a	24306 Dupont Boulevard	72	74	77
	M-08B	Julian Acres	22188 Melson Road	64	66	68
	R801	n/a	21439 Alms House Road	52	54	58
	R802	n/a	21437 Alms House Road	47	50	54
	R803	n/a	21438 Alms House Road	47	49	55
	R804	n/a	24686 Kruger Road	53	56	58
	R805	Julian Acres	24661 Kruger Road	60	62	64
	R806	Julian Acres	22075 Breasure Road	54	56	61
	R807	Julian Acres	22139 Breasure Road	55	58	63
	R808	Julian Acres	24584 Dupont Boulevard	66	69	74
	R809	n/a	22236 Breasure Road	52	55	60
	R810	n/a	24688 Dupont Boulevard	61	64	70
	R811	n/a	22296 Breasure Road	55	58	62
	R812	n/a	22292 Louise Street	49	52	56
9	M-09A (SB)	n/a	26154 Dupont Boulevard	73	75	78
	R901 (NB)	n/a	Dupont Boulevard north of Governor Stockley Road	68	70	76
	R902 (SB)	n/a	25136 Dupont Boulevard	63	66	72
	R903 (NB)	n/a	25294 Governor Stockley Road	58	60	66
	R904 (NB)	n/a	25203 Governor Stockley Road	49	51	56
	R905 (SB)	n/a	Dupont Boulevard at Governor Stockley Road	67	69	75
	R906 (SB)	n/a	25444 Governor Stockley Road	48	51	57
	R907 (SB)	n/a	Governor Stockley Road	47	47	51
	R908 (SB)	n/a	Dupont Boulevard south of Governor Stockley Road	63	65	72
	R909 (NB)	n/a	Dupont Boulevard south of Governor Stockley Road	66	69	74
	R910 (SB)	n/a	26208 Dupont Boulevard	62	64	68
	R911 (NB)	n/a	26203 Dupont Boulevard	64	67	72
13 (SB)	R1301	n/a	22622 Little Street	49	50	55
	R1302	n/a	22593 E Trap Pond Road	51	53	60
	R1303	n/a	Parker Road south of E Trap Pond Road	48	50	54



**Table 4: Predicted Design-Year Noise Levels**

Noise Sensitive Area	Receptor Number	Community or Historic Name	Address or Property Description	Existing Loudest Hour Noise Level (dBA)	Design Year 2030	
					No-Build Noise Level (dBA)	Build Noise Level (dBA)
14 (SB)	M-14A	n/a	Shortly Road at Sussex Conservation Center	55	58	59
	R1401	Sussex Conservation Center	Shortly Road across from Sussex Conservation Center	52	55	59
	R1402	n/a	S Bedford Street east of US 113	61	59	62
	R1403	n/a	Zoar Road south of Sussex Pines Road	50	52	53
15 (NB)	M-15A	n/a	20347 Wilson Road	61	66	65
21 (NB)	M-21B	n/a	24752 Bethesda Road	65	65	68
22	R2201 (SB)	n/a	26828 Widen Way	47*	47*	50
	R2202 (NB)	Stockley Crossing	26604 Bethesda Road	49	50	54
	R2203 (SB)	n/a	Woodlawn Memorial Park	62	65	72
<b>Total Number of Residential Impacts Per Alternative</b>					<b>95</b>	<b>128</b>

- Impacted receptor (66 dBA or higher)
- (take) Property would be purchased by the project
- Invalid Invalid Receptor
- \* Noise levels measured in the project area were never below 47 dBA and therefore, 47 dBA is considered the background noise level. TNM predicts less than a 47 dBA noise level at this receiver due to highway traffic generated noise, however the noise level is considered to be 47 dBA to account for existing background noise.

Impacted receptors in the tables are shaded. A receptor is considered impacted if design-year predicted noise levels equal or exceed 66 dBA for activity category B or C or 71 dBA for activity category E (light grey shading) or if predicted design-year build noise levels exceed existing noise levels by 12 dBA or more (dark grey shading). For example, a receptor with an existing noise level of 47 dBA that is predicted to experience a design-year noise level of 59 dBA or greater would be considered impacted.

Total impacts for each alternative, as shown on Table 4, are not determined by the number of impacted receptors, but by the number of impacted properties that are represented by those receptors. Receptor locations are shown on **Figure 1**.

As shown in **Table 4**, the Build Alternative is predicted to result in 128 noise impacts.

### Mitigation Analysis Summary

After traffic noise impacts have been assessed, mitigation measures such as noise walls or berms must be evaluated. Mitigation is evaluated by feasibility and reasonableness criteria. DelDOT's Highway Transportation Noise Policy, Policy Implement No. D-03, revised 7/5/11 outlines the following factors for evaluating noise mitigation measures:



- DelDOT will identify and evaluate impacts that noise abatement measures will have on the social, economic, and natural environments when determining the feasibility and reasonableness of a noise mitigation project. An attempt will be made to provide noticeable and effective noise reductions of at least **9 dBA** at impacted receptors. For noise barrier and berm projects, this reduction is known as Insertion Loss. In order for any noise barrier construction to be considered reasonable under DelDOT policy, the barrier must provide at least a 9 dBA reduction in noise to at least twenty five percent of the benefited receptors.
- If noise barrier design cannot achieve at least a **5 dBA noise reduction for at least three impacted receptors**, then the construction of a noise barrier is not deemed to be acoustically feasible.
- Noise mitigation is cost-effective – not to exceed **\$25,000 per impacted and also benefited property**. If this criterion is not met, the calculation will be modified to take into consideration any benefited receptors that are not considered impacted. Each of these benefited receptors that are not considered impacted will be given a weighted value equal to twenty five percent of a benefited and impacted receptor.
- Noise mitigation is acceptable to the majority of people affected.

When determining the cost-effectiveness of mitigation, all properties that receive a 9 dBA or more reduction in predicted future noise levels are considered to benefit from noise wall or berm construction. For the purposes of cost evaluation, a unit cost of \$25.00 per square foot has been used to estimate the total noise wall cost and a unit cost of \$10.00 per cubic yard has been used to estimate the total berm cost. These cost figures are based upon current experience and reflect the cost of constructing an earth berm or ground mounted noise wall system.

### Sound Barrier Alignment

The studied Build alternative barriers adjacent to US 113 are shoulder barriers where driveway access allows. This alignment allows for an area on the highway side of the barrier for landscaping and snow removal, and a minimum of ten-feet of right-of-way on the residential side for maintenance.

The Build alternative barrier on the southbound side in NSA 1 is approximately 1,054-feet long and has a height of 16-feet. The Build alternative barrier on the northbound side of NSA 2 is approximately 2,358-feet long and has heights varying from a minimum of 12-feet to a maximum of 20-feet. The Build alternative mitigation on the southbound side of NSA 2 consists of two barriers, with a gap in the barriers to allow access located approximately 3,000-feet north of Wilson Road. The barrier system is approximately 1,159-feet long and has a height of 24-feet. The Build alternative barrier on the southbound side in NSA 3 is approximately 400-feet long and has a height of 12-feet. There are two Build alternative barriers on the southbound side of NSA 3. The barrier north of the Alms House Road interchange is approximately 300-feet long and has a height of 16-feet. The barrier south of the Kruger Road interchange is approximately 1,359-feet long and has a height of 20-feet. The Build alternative barrier on the southbound side in NSA 9 is approximately 492-feet long and has a height of 12-feet. The Build



alternative mitigation on the southbound side of NSA 22 consists of two barriers, with a gap in the barriers to allow access to the Woodlawn Memorial Park. The barrier system is approximately 1,200-feet long and has a height of 12-feet. See **Tables 5 and 6** for additional information.

**Table 5: Build Alternative Barrier Cost Analysis**

NSA/Community		Number of Impacts	Barrier Height (ft)	Barrier Length (ft)	Insertion Loss (first row) (dBA)	Barrier Cost	Benefited Properties	Cost per Benefited Property	Comment	
1 NB	Across from Kellers Acres	7	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
1 SB	Kellers Acres	6	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
2 NB	East of US 113 near Wilson Road	10	15	2,358	9	\$886,500	2	\$443,250	8 impacts cannot be benefited due to driveway access to the proposed alignment	
2 SB	West of US 113 near Wilson Hill Road	20	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
3	East of US 113 from Bramhall Street to N Beford Street	9	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
4	East of US 113 from Nancy Street to Bramhall Street	9	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
5	Swain Acres and Shepherd's Point	15	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
7	Rawlin Manor	18	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
8	Julian Acres	15	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
9 NB	Bethesda Manor and East of US 113 near Governor Stockley Road	7	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
9 SB	West of US 113 near Governor Stockley Road	11	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
22	South of the Piney Grove Road/Rich Road interchange	1	Driveway access to US 113 prevents effective mitigation							Mitigation not feasible
<b>Totals:</b>						<b>\$3,070,625</b>	<b>2</b>	<b>\$204,708</b>		



**Table 6: Build Alternative Berm Cost Analysis**

NSA/Community		Number of Impacts	Berm Height (ft)	Berm Length (ft)	Insertion Loss (first row) (dBA)	Berm Cost	Benefited Properties	Cost per Benefited Property	Comment	
1 NB	Across from Kellers Acres	7							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
1 SB	Kellers Acres	6							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
2 NB	East of US 113 near Wilson Road	10							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
2 SB	West of US 113 near Wilson Hill Road	20							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
3	East of US 113 from Bramhall Street to N Beford Street	9							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
4	East of US 113 from Nancy Street to Bramhall Street	9							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
5	Swain Acres and Shepherd's Point	15							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
7	Rawlin Manor	18							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
8	Julian Acres	15							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
9 NB	Bethesda Manor and East of US 113 near Governor Stockley Road	7							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
9 SB	West of US 113 near Governor Stockley Road	11							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible
22	South of the Piney Grove Road/Rich Road interchange	1							Lack of right-of-way and driveway access prevents placement of berm between US 113 and 1st-Row impacted properties	Mitigation not feasible

### Sound Barrier Performance

The sound barrier performance is determined by the number of properties benefited from the proposed noise barrier design. DelDOT defines benefited properties as those impacted properties that, through the insertion of a noise barrier, receive a minimum of 9 dBA noise



reduction regardless of impact status. The number of impacted properties is obtained by plotting noise level and insertion loss contour lines on a topographical map and counting the number of properties that fall within those contours. In order to provide noticeable and effective attenuation, the design goal of the studied Build alternative barrier is an insertion loss of 9 dBA at first row impacted properties. Additionally, a line of site check was performed on the proposed barriers to ensure adequate heights of the barrier segments were achieved in order to prevent viewing of traffic from the properties located along the line of first row receivers. In general, if individuals at the receiver locations can see the noise source, they may perceive the barrier to be ineffective. **Figure 1** displays the location of each receptor used to construct these noise contours.

### **Impacted and Benefited Properties**

**Tables 5 and 6** provide a summary of the total number of impacted and benefited properties for the Build alternative. Additionally, a description of each Noise Sensitive Area (NSA) and a cost per benefited property within that particular NSA is provided in the tables. Mitigation costs are considered “reasonable and feasible” by DeIDOT if the cost of mitigation does not exceed \$25,000 per benefited property.

The Build alternative would impact a total of 137 properties. In NSA 1, seven properties are considered impacted on the northbound side but cannot be benefited due to driveway access to the proposed alignment. Six properties are considered impacted on the southbound side but cannot be benefited due to driveway access to the proposed alignment.

In NSA 2, ten properties are considered impacted on the northbound side and two properties would benefit from the studied barrier. Eight impacted properties cannot be benefited due to driveway access to the proposed alignment. As shown in **Table 5**, the resulting cost per benefited property of \$443,250 exceeds \$25,000 and therefore, the studied noise barrier on the northbound side in NSA 2 is not considered reasonable and feasible. Twenty properties are considered impacted on the southbound side but cannot be benefited due to driveway access to the proposed alignment.

In NSA 3, nine properties are considered impacted on the northbound side but cannot be benefited due to driveway access to the proposed alignment.

In NSA 4, nine properties are considered impacted but cannot be benefited due to driveway access to the proposed alignment.

In NSA 5, fifteen properties are considered impacted but cannot be benefited due to driveway access to the proposed alignment.

In NSA 7, fourteen properties are considered impacted but cannot be benefited due to driveway access to the proposed alignment.



In NSA 8, eighteen properties are considered impacted on the southbound side but cannot be benefited due to driveway access to the proposed alignment.

In NSA 9, seven properties are considered impacted on the northbound side but cannot be benefited due to driveway access to the proposed alignment. Eleven properties are considered impacted on the southbound side but cannot be benefited due to driveway access to the proposed alignment.

In NSA 22, no properties are considered impacted but the Woodlawn Memorial Park is considered impacted but cannot be benefited due to driveway access to the proposed alignment.

Berm mitigation is not feasible in any NSA for the Build alternative due to right-of-way constraints.