



113

US 113 NORTH/SOUTH STUDY

US 113 North/South Study Milford Area Working Group Meeting

January 31, 2007





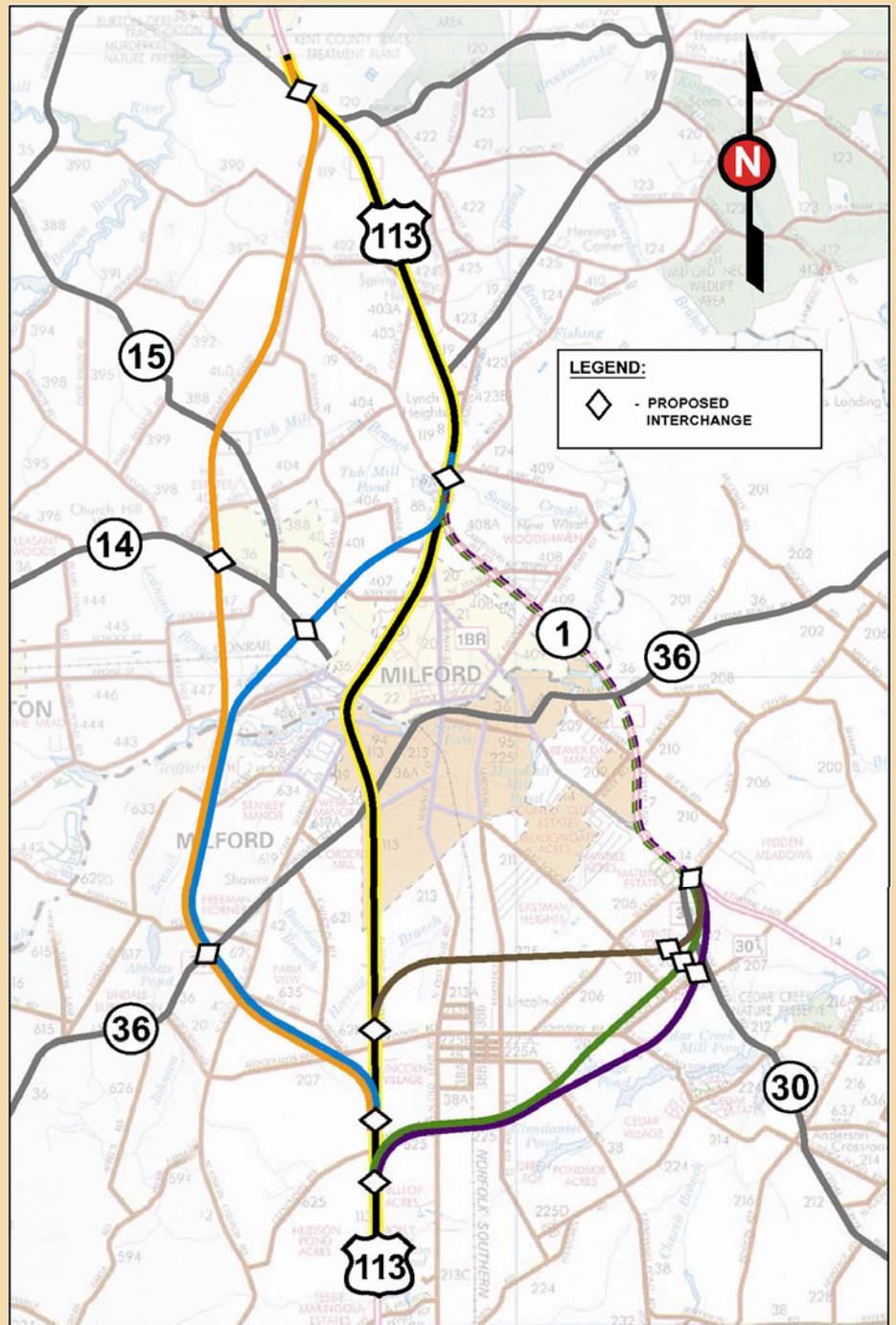
Agenda

- Opening Remarks
Carolann Wicks
Secretary of Transportation
- Introduction
Monroe Hite, III
- Review of Key Issues
Monroe Hite, III
- Overview of Alternatives
Project Team
- Alternative-by-Alternative Discussion
Project Team

Agenda

- Summary of Issues Project Team
- Agency Comments on Alternatives Project Team
- Schedule Monroe Hite, III
- Next Steps Monroe Hite, III

Milford Area Alternatives

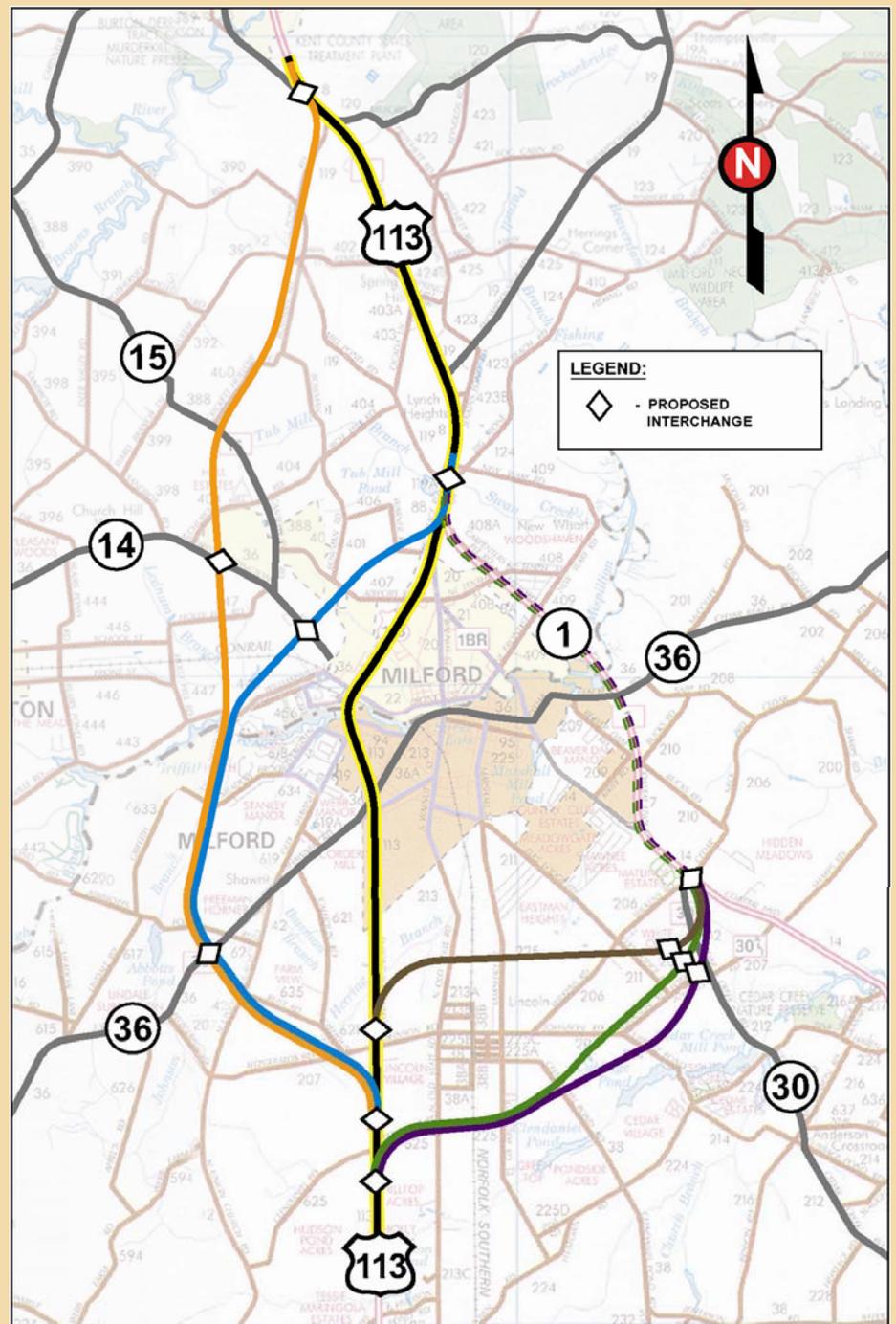


Milford Area Alternatives

Key Issues

- **Wetlands**
- **Cultural Resources**
- **Rare, Threatened and Endangered Species**
- **Traffic**
- **Socio-Economic Impacts**
- **Natural Areas**
- **Cost**

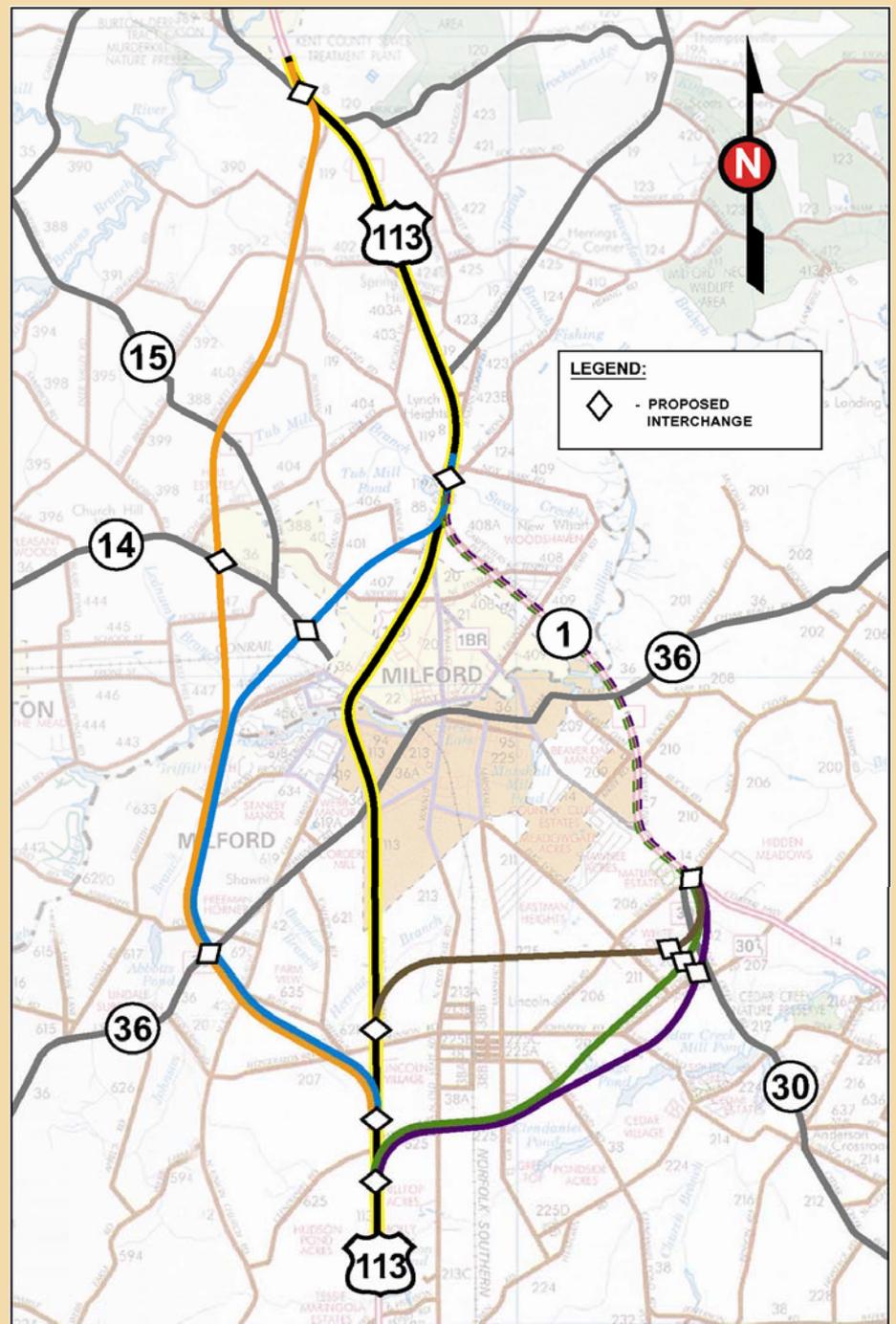
Milford Area Alternatives



Milford Area Alternatives Wetlands

- The natural resource agencies have analyzed the retained alternatives.
 - U.S. Army Corps of Engineers
 - Environmental Protection Agency
 - U.S. Fish and Wildlife Service
 - Department of Natural Resources and Environmental Control
- Several field visits have been conducted with the agencies to review critical issues.
- These agencies now have a full understanding of the wetland issues, including habitat quality, associated with each alternative.

Milford Area Alternatives

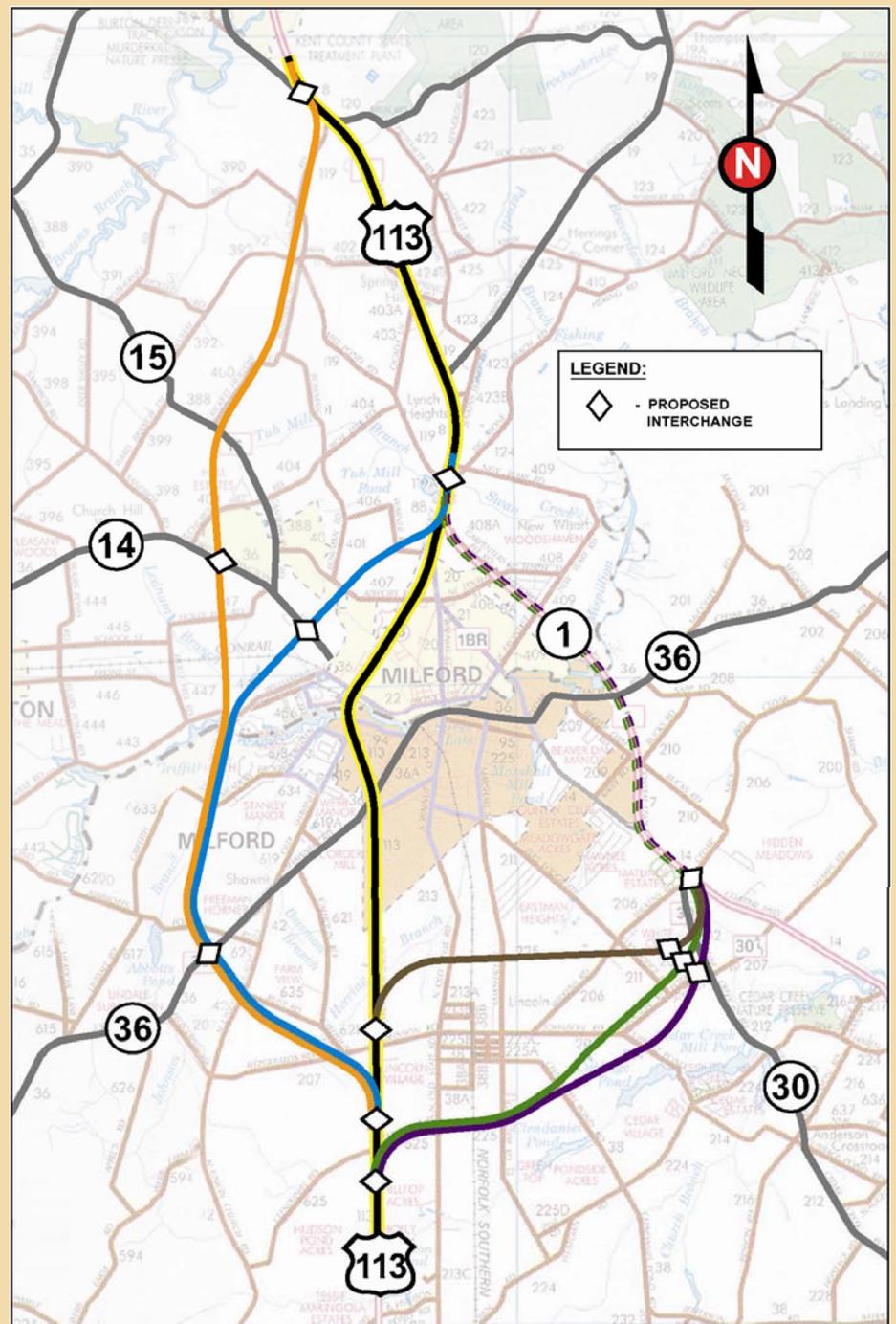


Milford Area Alternatives

Cultural Resources

- The Delaware State Historic Preservation Office (SHPO), working closely with the project team, has agreed on the eligibility of most architectural properties for the National Register of Historic Places. A few outstanding issues are currently being resolved.

Milford Area Alternatives



Milford Area Alternatives

RTEs

- The project team coordinated with the U.S. Fish and Wildlife Service and DNREC regarding Federal species of concern.
- Extensive studies were conducted to determine potential impacts to Swamp Pink, a Federally-listed species.
 - No direct impacts were found.
 - Exceptional habitat was found in the Johnson Branch area.
- A new bald eagle nest was discovered by DNREC in fall 2006 within about 500 feet of the Orange alternative.

Milford Area Alternatives Traffic

- During 2006, DeIDOT completely updated its travel demand model
 - Population and employment
 - External volumes
 - 2005 calibration
 - Mode choice model (DTC)
 - New toll model (I-95, SR 1, US 301)

Milford Area Alternatives Traffic

Alternative	2030 Traffic Volumes		
	Existing US 113	Bypass	
		New roadway	SR 1 segment
Base	19,000	N/A	N/A
No-build	45,000	N/A	N/A
Yellow	67,000	N/A	N/A
Orange	15,000	51,500	N/A
Blue	15,500	37,500	N/A
Green	17,000	38,000	65,500
Purple	17,000	38,000	65,500
Brown	22,000	39,000	64,500

- All alternatives meet purpose and need
- Traffic-dependent impacts (noise, air quality, economic, etc.) are being determined

Milford Area Alternatives

Socio-Economic Impacts

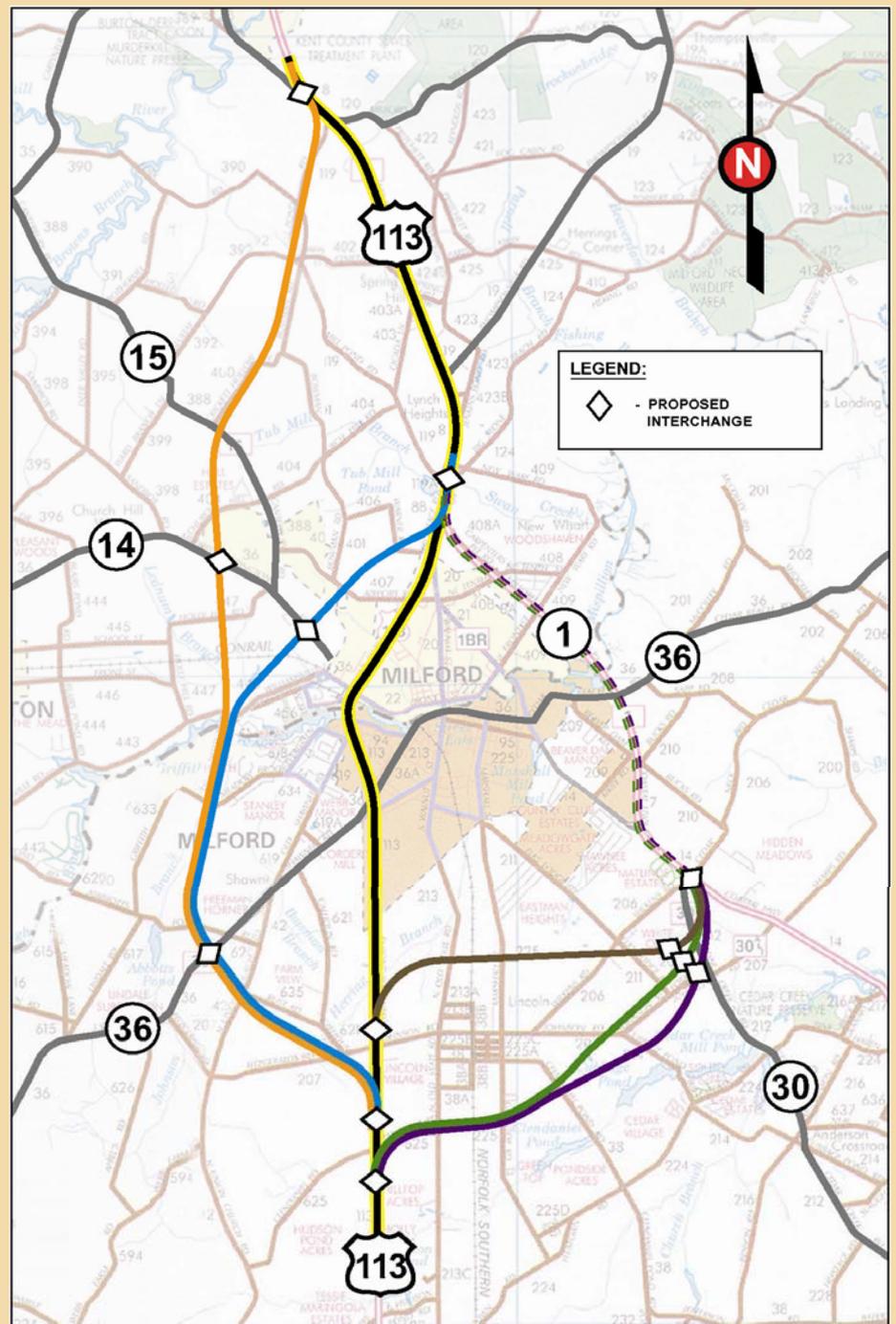
- This category includes impacts to both businesses and properties.
- Property impacts have been updated in the matrix.
- The revised traffic forecasts have been completed, and updated business impacts are being recalculated.
- Impacts to agriculture have been determined.

Milford Area Alternatives

Agricultural Economic Impacts

Alternative	Impact Area (Acres)	Crop Sales (Annual)	Total Sales (Annual)	Jobs
Yellow	69	\$14,000 – 31,000	\$20,000 – 45,000	0 – 1
Orange	524	\$109,000 – 239,000	\$155,000 – 341,000	2 – 4
Blue	215	\$45,000 – 98,000	\$64,000 – 140,000	1 – 2
Green	216	\$45,000 – 98,000	\$64,000 – 140,000	1 – 2
Purple	236	\$49,000 – 108,000	\$70,000 – 154,000	1 – 2
Brown	215	\$45,000 – 98,000	\$64,000 – 140,000	1 – 2

Milford Area Alternatives

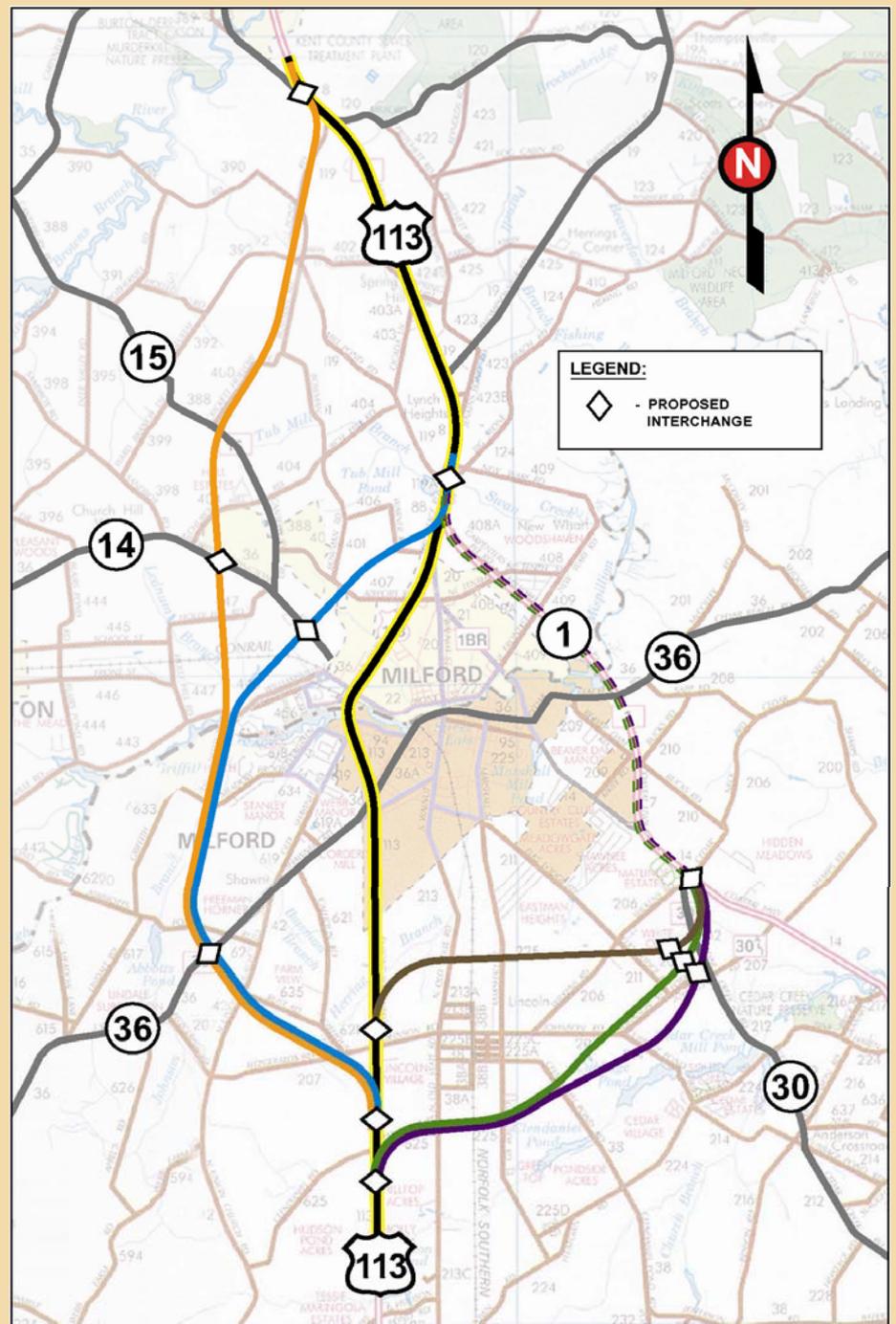


Milford Area Alternatives

Natural Areas

- DNREC approved new State Resource Area and Natural Area maps in fall 2006.
- These data were provided to the project team by DNREC immediately upon approval and have been incorporated into the mapping.
- These impacts are included in the current impact matrix.
 - The only significant impacts are on the Orange and Blue alternatives at Griffith Lake and Johnson Branch.

Milford Area Alternatives



Milford Area Alternatives

Cost

- The following costs include construction, right of way, and other incidentals in today's dollars:
 - Yellow: \$418 – 512 million
 - Orange: \$420 – 513 million
 - Blue: \$324 – 395 million
 - Green: \$299 – 365 million
 - Purple: \$337 – 411 million
 - Brown: \$339 – 415 million

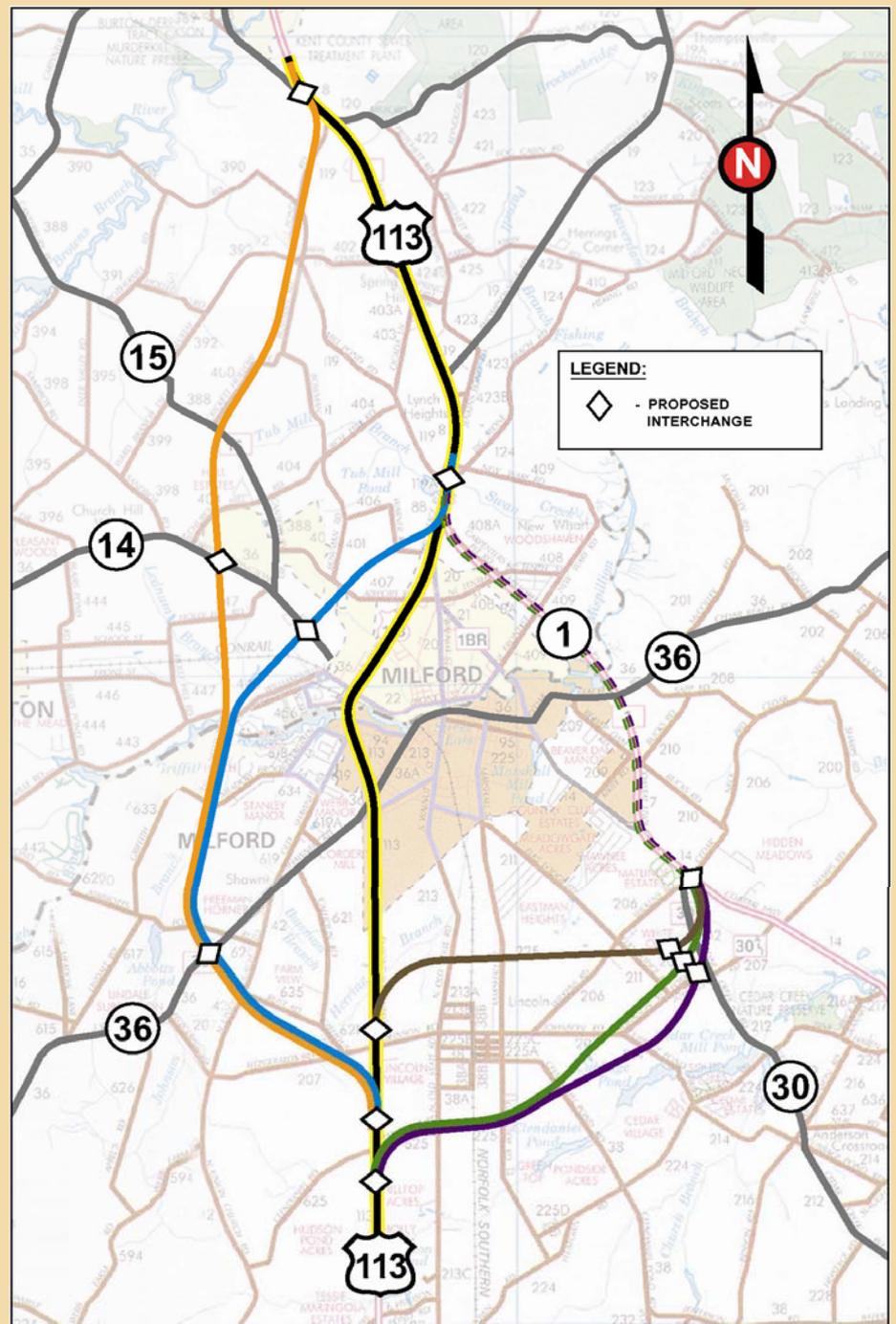
Milford Area Alternatives Overview

- In consideration of June 2006 public workshop input, agency comments, and additional information gathered regarding these key issues, the alternatives were refined as follows:
 - Orange and Blue: considered (and rejected) alternative crossings of Griffith Lake and Johnson Branch to minimize natural resource impacts

Milford Area Alternatives Overview

- Orange: adjusted in the Church Hill Road vicinity to avoid a historic farm
- Blue: adjusted to avoid historic property at northwest corner of US 113 and Warner Road
- Purple: shifted alignment south to reduce residential and resource impacts near Logans Run
- Brown: evaluated several options (to be discussed in detail)

Milford Area Alternatives



ALTERNATIVE-BY-ALTERNATIVE DISCUSSION

Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (14.4%)	70 (10.4%)	59 (11.7%)	92 (8.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (13.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.5%)	6 (1.7%)
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Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (72.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Acres (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
Acres (acres)	0	12	12	12	21	33	12
Forestland 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	6	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	4	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Livable Delaware							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Yellow (On-Alignment)

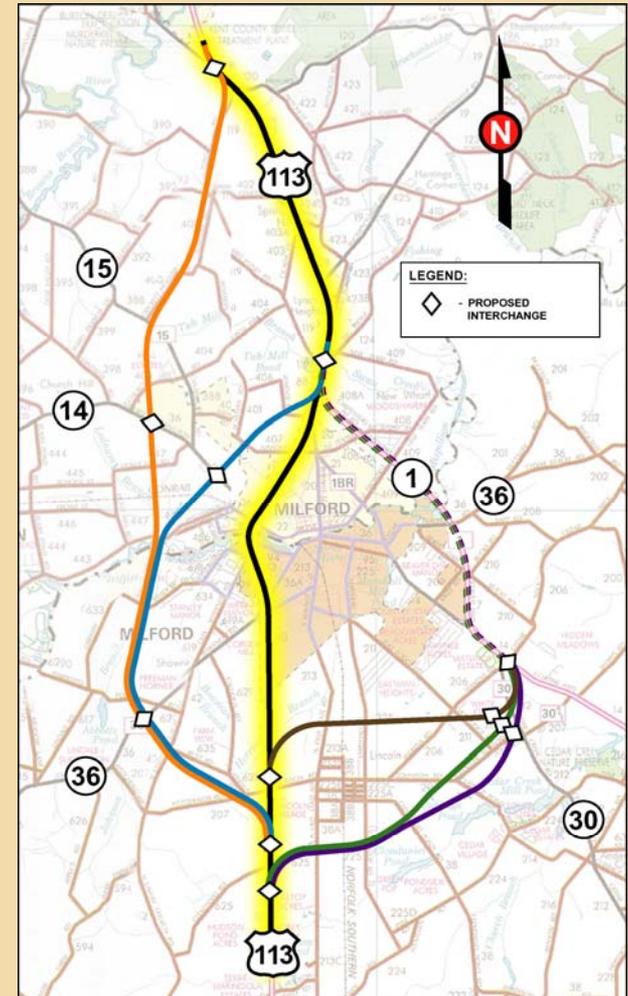
■ Natural/Cultural Resources

- **Advantages**

- Low wetland impacts
- Lowest forest impacts
- Fewest agricultural districts and easements impacted
- Low natural area and State Resource Area impacts

- **Disadvantages**

- Direct impacts on historic architectural resources – Section 4(f) – **fatal flaw for Federal funding**
- Potential 6(f) impact – BMX park
- Greatest potential indirect impacts on historic architectural resources



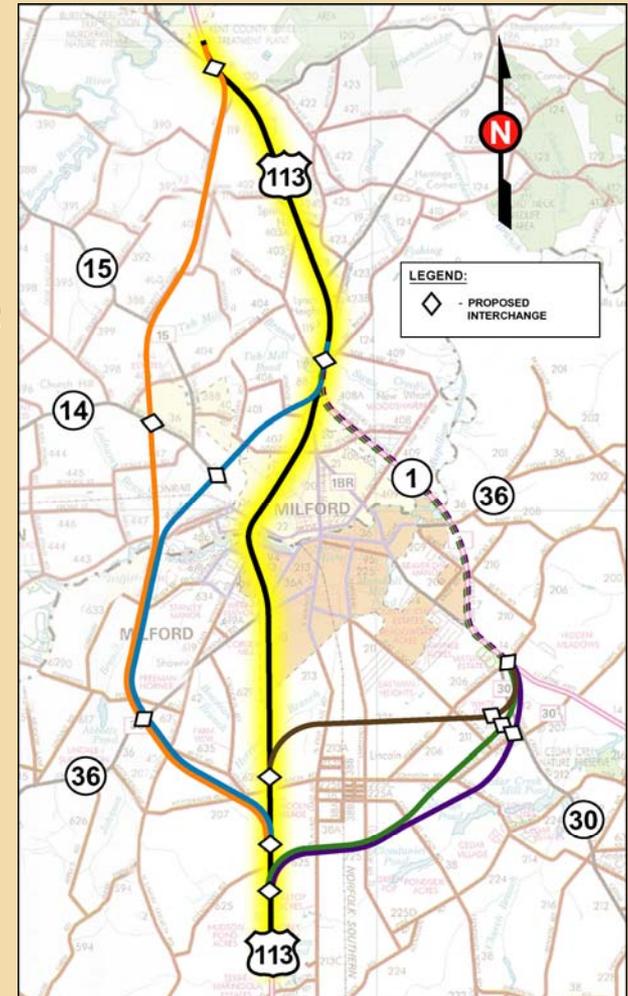
Milford Area Alternatives – Matrix

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Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
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Section 4(f) Properties							
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Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
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Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
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Other Considerations							
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(acres within properties)	0	0	39	11	4	5	0
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Milford Area Alternatives

Yellow (On-Alignment)

- **Engineering/Traffic/Safety/Community**
 - **Advantages**
 - Shortest overall length
 - Takes advantage of existing right of way
 - **Disadvantages**
 - High cost alternative
 - Greatest impact on traffic during construction
 - Greatest number of properties impacted
 - Greatest disruption to existing businesses
 - Inconsistent with Livable Delaware



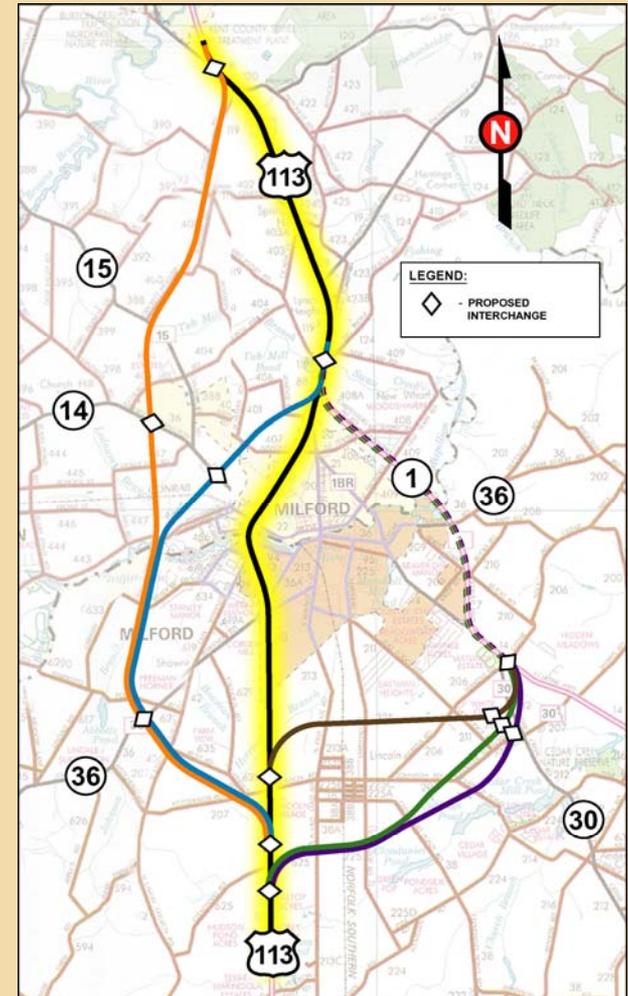
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Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Yellow (On-Alignment)

- Public Comments to Date
 - Opposition voiced by City of Milford, emergency service providers, some Working Group members, and many members of the public



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	85	105	10	14	41
Waters of the US (linear feet)	0	689	1,149	1,262	521	345	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	5	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	45 (11.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	5 (1.5%)	5 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	25 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (76.0%)	42 (42.4%)	42 (43.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Area (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
Area (acres)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	25	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	56	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Orange (West Bypass)

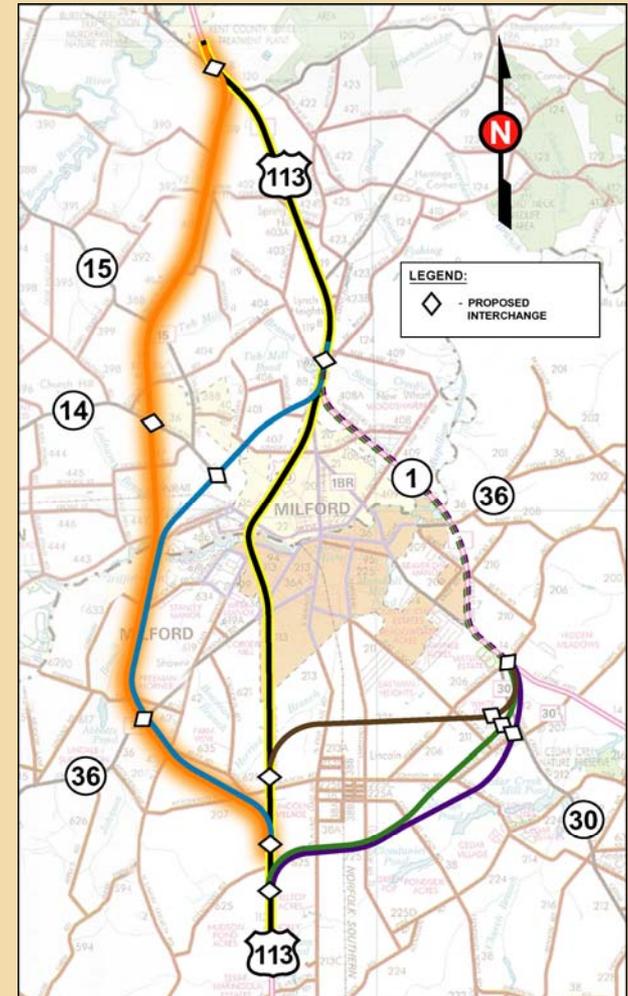
■ Natural/Cultural Resources

- **Advantages**

- No direct impacts on historic architectural resources

- **Disadvantages**

- Potential direct impact to Federally-listed RTE: new bald eagle nest
- High potential RTE impacts: swamp pink habitat
- High wetland impacts
- High Waters of the US impacts
- High agricultural impacts
- Highest forest land impacts (with Blue)
- Among greatest natural area and State Resource Area impacts
- Potential indirect effect on seven historic architectural resources



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (14.4%)	70 (10.4%)	59 (11.7%)	92 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (31.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.5%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (25.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (72.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Acres (acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
Acres (acres within properties)	0	12	12	12	21	33	12 +/-
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Orange (West Bypass)

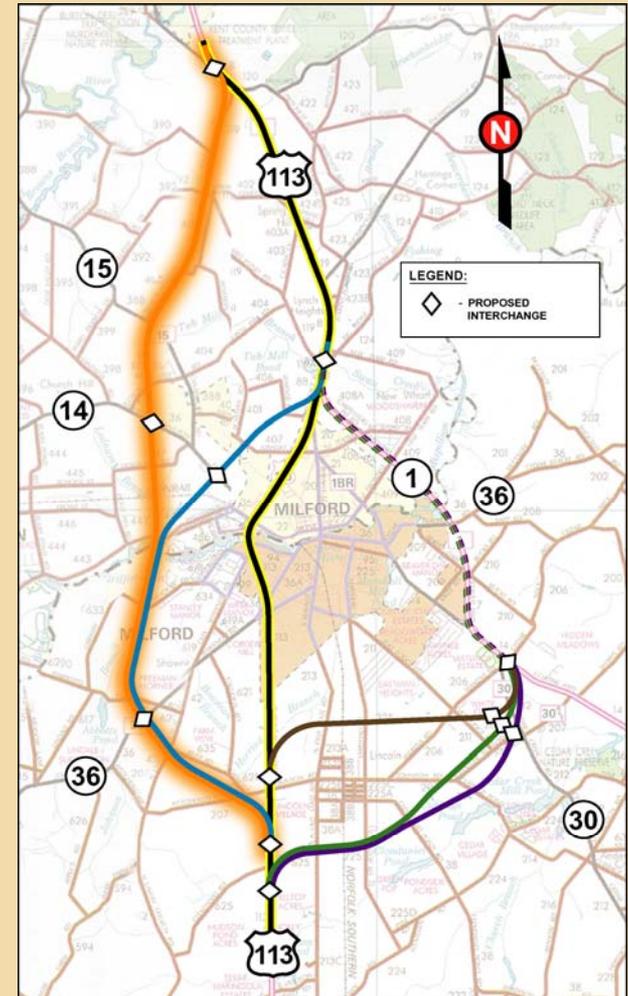
■ Engineering/Traffic/Safety/Community

- **Advantages**

- Short overall length
- Highest traffic benefits

- **Disadvantages**

- High number of property impacts
- Highest property impacts (acres)
- Fair consistency with Livable Delaware
- High cost alternative
- Greatest length of new construction

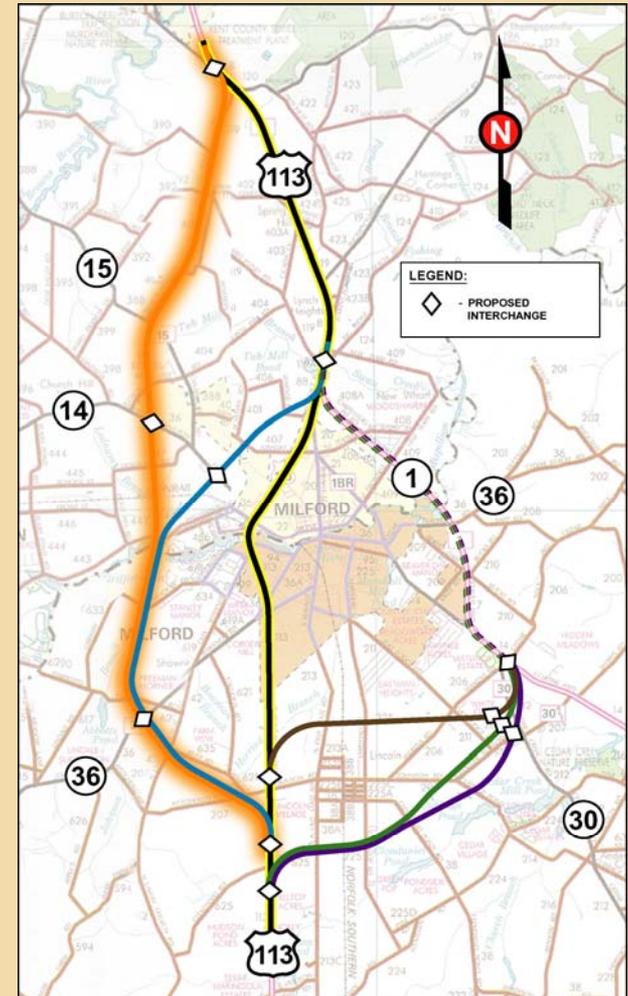


Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	85	105	10	14	41
Waters of the US (linear feet)	0	689	1,149	1,262	521	345	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	5	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	45 (11.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	5 (1.5%)	5 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	25 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (43.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Area (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
Area (acres)	0	12	12	12	21	33	12 +/-
Forestland 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	25	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives Orange (West Bypass)

- Public Comments to Date
 - Little support to date by the Working Group and the public



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (14.4%)	70 (10.4%)	59 (11.7%)	92 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (31.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.5%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (78.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agriculture Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Acres (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
Acres (acres)	0	12	12	12	21	33	12
Forestland 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (number of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	6	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	4	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Blue (West Bypass)

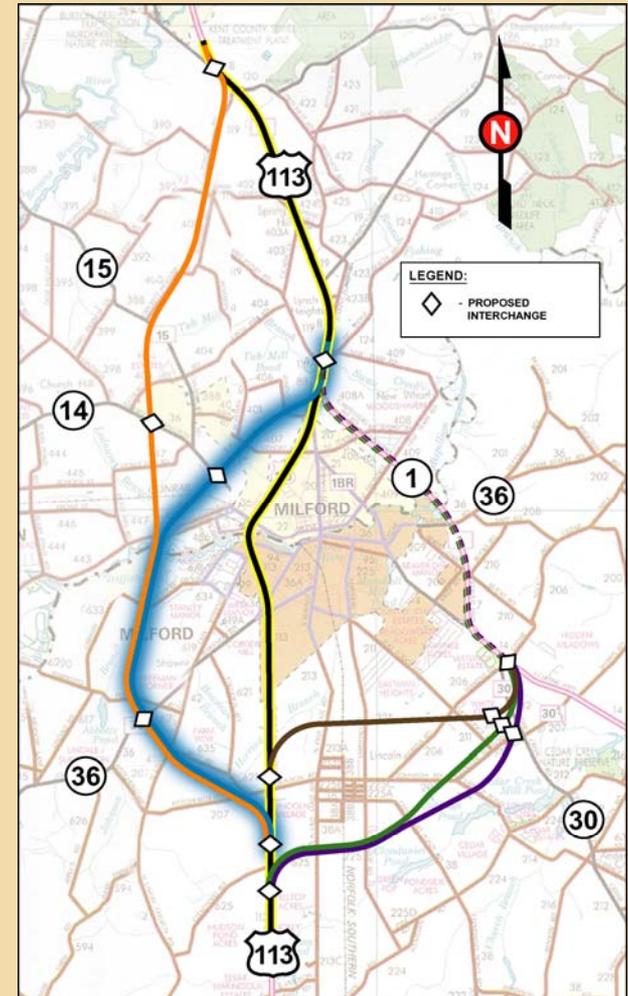
■ Natural/Cultural Resources

- **Advantages**

- No direct impacts on historic architectural resources

- **Disadvantages**

- Highest wetland impacts
- Highest Waters of the US impacts
- Highest potential RTE impacts
 - Swamp pink habitat
 - New bald eagle nest about 1/4 mile from alternative
- Highest forest land impacts (with Orange)
- Moderate impacts on agriculture
- Among greatest natural area and State Resource Area impacts
- Potential indirect effect on seven historic architectural resources



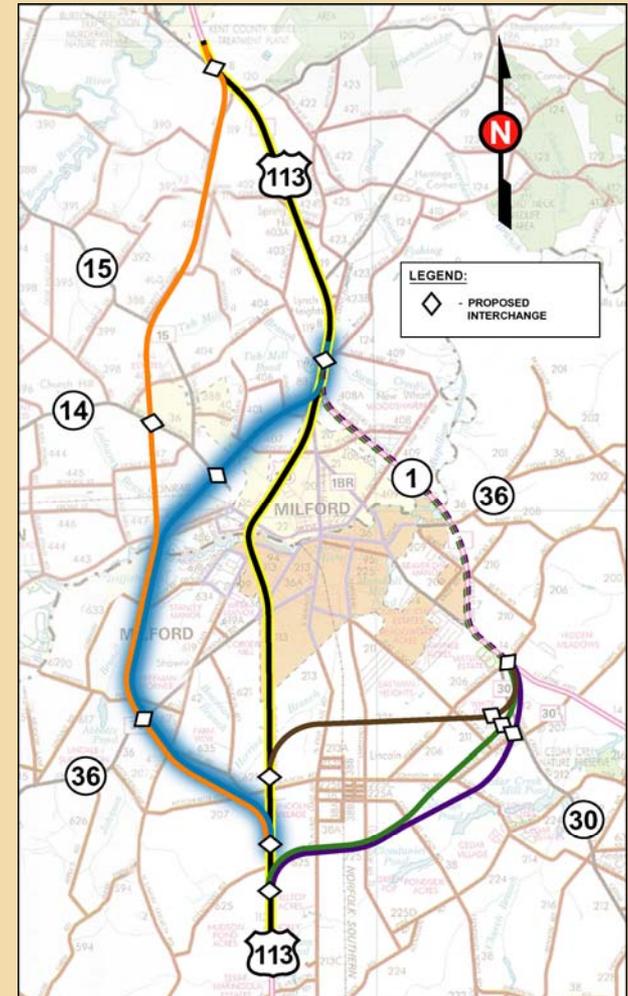
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	85	105	10	14	41
Waters of the US (linear feet)	0	689	1,149	1,262	521	345	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	5	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	45 (11.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	5 (1.5%)	5 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	25 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (43.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	35	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
(acres within properties)	0	12	12	12	21	33	12 +/-
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	25	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	56	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Blue (West Bypass)

- Engineering/Traffic/
Safety/Community
 - **Advantages**
 - Moderate cost alternative
 - Moderate length alternative
 - **Disadvantages**
 - Poor consistency with Livable Delaware



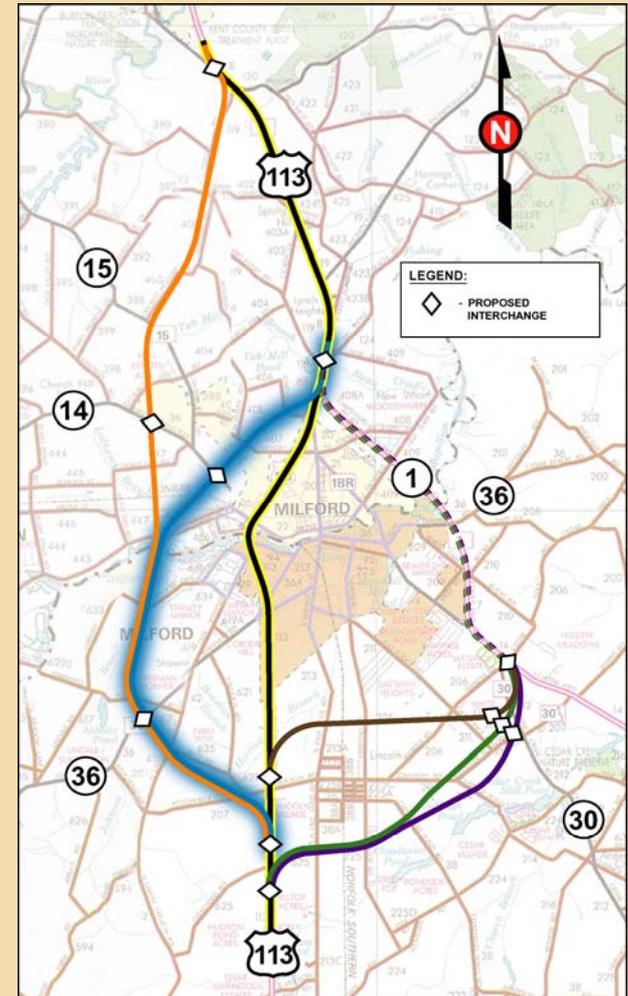
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (14.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (17.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (31.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.5%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (25.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	6	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	4	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 offset alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Blue (West Bypass)

- Public Comments to Date
 - Little support to date by the Working Group and the public



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	85	105	10	14	41
Waters of the US (linear feet)	0	689	1,149	1,262	521	345	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	5	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	45 (11.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	5 (1.5%)	5 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	25 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (43.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	35	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	25	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Green (East Bypass)

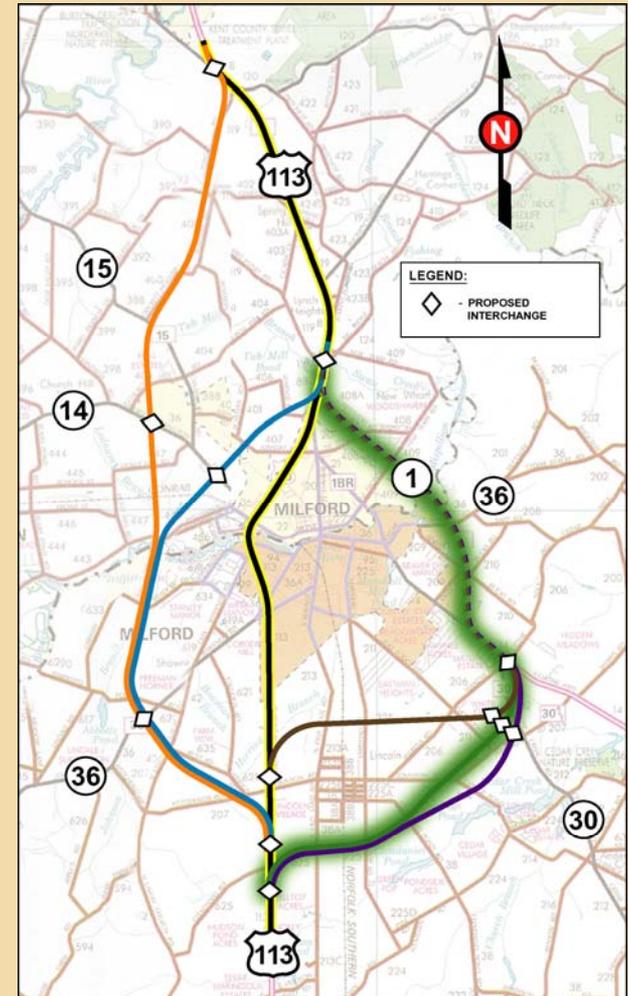
■ Natural/Cultural Resources

• Advantages

- Lowest wetland impacts
- Low Waters of the US impacts
- No anticipated direct impacts on historic architectural resources
- No anticipated indirect effects on historic architectural resources
- Lowest potential RTE impacts
- Low forest impacts
- Low natural area and State Resource Area impacts

• Disadvantages

- None



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	8 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.3%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.8%)	58 (17.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.8%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
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High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (28.8%)	15 (21.8%)
Moderate Sensitivity Sites (number / %)	0	152 (78.0%)	42 (42.4%)	42 (42.4%)	30 (49.2%)	33 (50.0%)	42 (57.8%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
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Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Green (East Bypass)

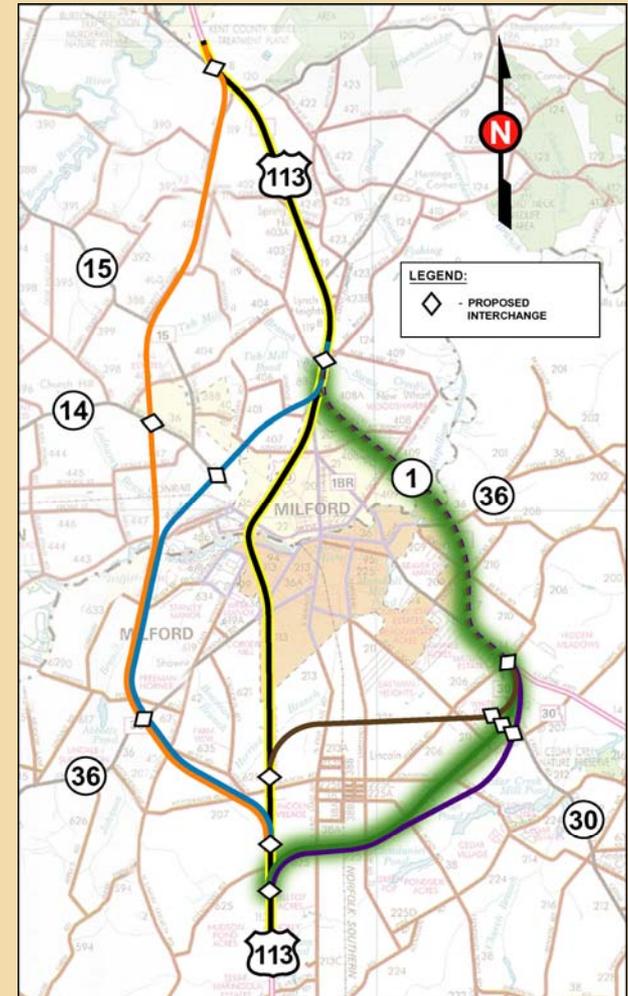
■ Engineering/Traffic/ Safety/Community

- **Advantages**

- Lowest cost alternative
- Good consistency with Livable Delaware
- Low number of affected properties
- Takes advantage of existing SR 1 – not much new alignment

- **Disadvantages**

- Greater overall length than on-alignment and west bypass alternatives



Milford Area Alternatives – Matrix

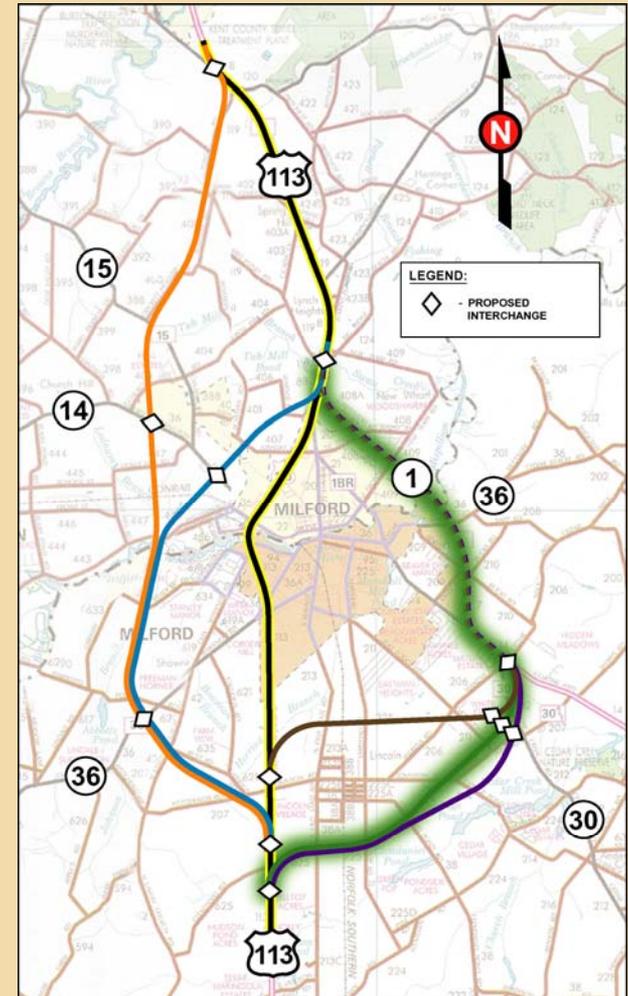
	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	8 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	92 (5.9%)	25 (8.3%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (13.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.6%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.8%)
Moderate Sensitivity Sites (number / %)	0	152 (76.0%)	42 (42.4%)	42 (42.4%)	30 (49.2%)	33 (50.0%)	42 (60.8%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.8%)	3 (4.5%)	4 (5.8%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
(acres within properties)	0	12	12	12	21	33	12 +/-
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Green (East Bypass)

Public Comments to Date

- Working Group favors East; requested Brown be evaluated
- Greater Lincoln community opposes Green and Purple; favors Brown



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.3%)	35 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.8%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agriculture Disrupts (Ten-Year) (number of properties)	0	0	4	2	0	1	0
Acres (acres)	0	0	39	11	0	1	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	20
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	56	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Purple (East Bypass)

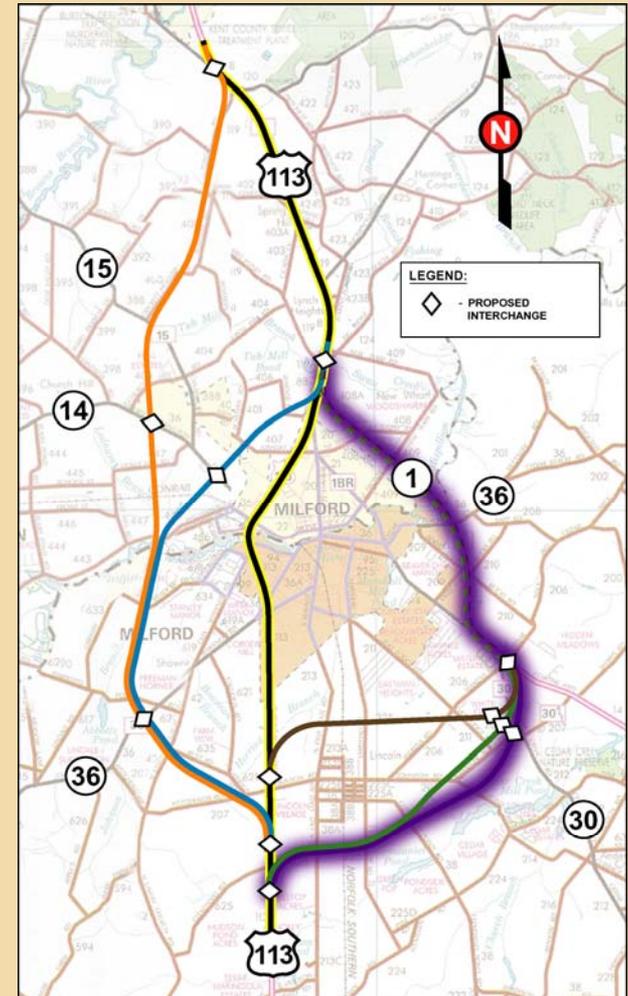
■ Natural/Cultural Resources

- **Advantages**

- Low wetland impacts
- Lowest Waters of the US impacts
- No anticipated direct impacts on historic architectural resources
- Few (two) anticipated indirect effects on historic architectural resources
- Low potential RTE impacts
- Low forest impacts
- Low natural area and State Resource Area impacts

- **Disadvantages**

- None



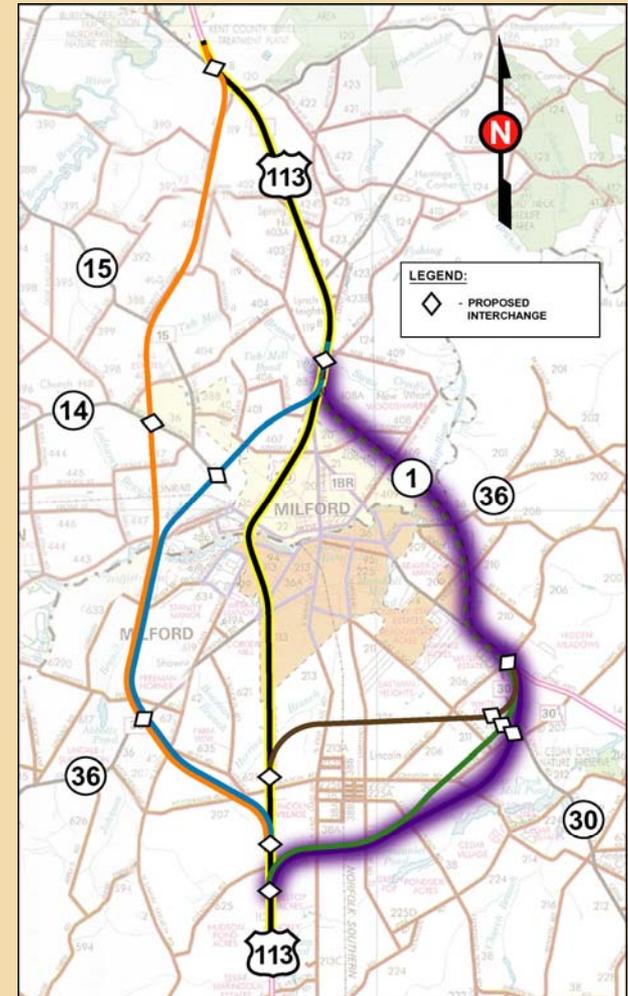
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	8 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	92 (5.9%)	25 (8.3%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (13.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.6%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (76.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Acres (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
Acres (acres)	0	12	12	12	21	33	12 +/-
Forestland 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	29
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Livable Delaware							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Purple (East Bypass)

- Engineering/Traffic/
Safety/Community
 - **Advantages**
 - Moderate cost alternative
 - Good consistency with Livable Delaware
 - Low number of affected properties
 - Takes advantage of existing SR 1
 - not much new alignment
 - **Disadvantages**
 - Greater overall length than on-alignment and west bypass alternatives



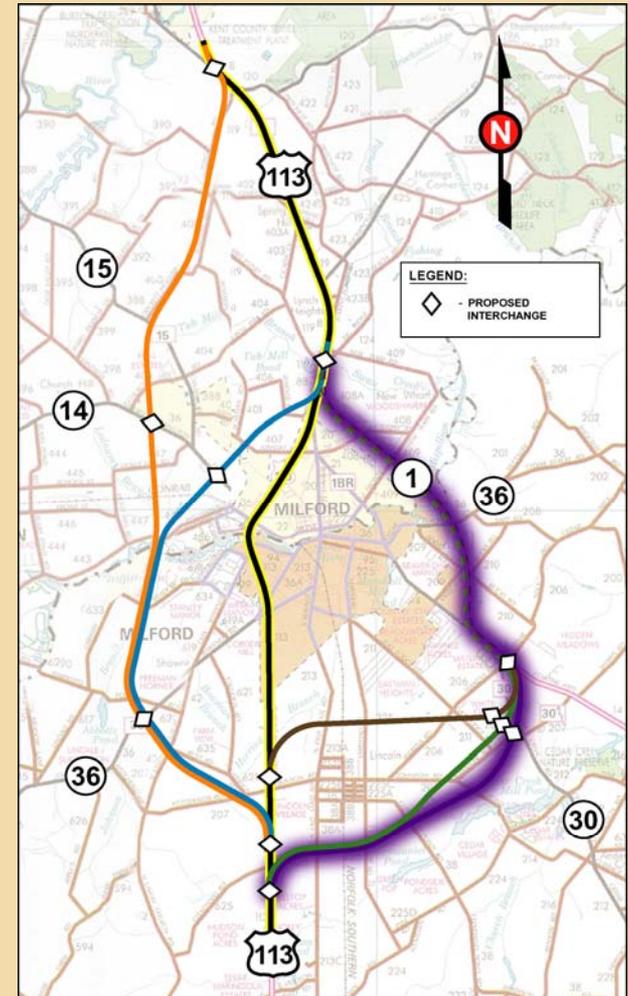
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	85	105	10	14	41
Waters of the US (linear feet)	0	689	1,149	1,262	521	345	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	5	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	45 (11.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	5 (1.5%)	5 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	25 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (43.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.5%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	35	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Area (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
Area (acres)	0	12	12	12	21	33	12 +/-
Forestland 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	25	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Purple (East Bypass)

- Public Comments to Date
 - Working Group favors East; requested Brown be evaluated
 - Greater Lincoln community opposes Green and Purple; favors Brown



Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	14	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.3%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.8%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (78.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
Area (acres)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3 +/-
Area (acres)	0	12	12	12	21	33	12 +/-
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13 - 53
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Brown (East Bypass)

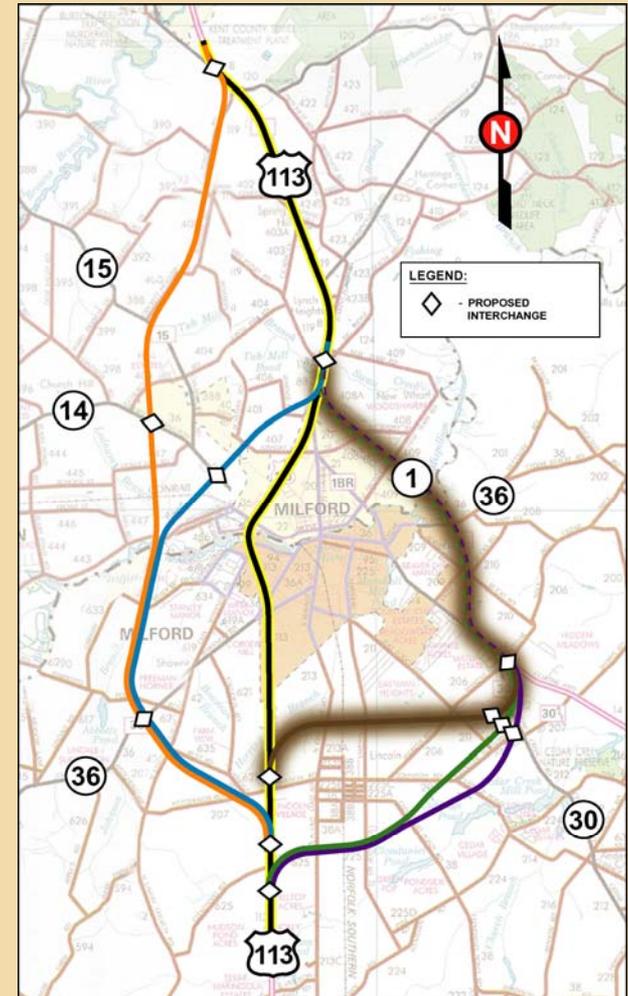
■ Natural/Cultural Resources

• Advantages

- No anticipated impacts on historic architectural resources
- Relatively low potential RTE impacts
- Low natural area and State Resource Area impacts

• Disadvantages

- Fragments wetland/forest habitat on Herring Branch
- High Waters of the US impacts



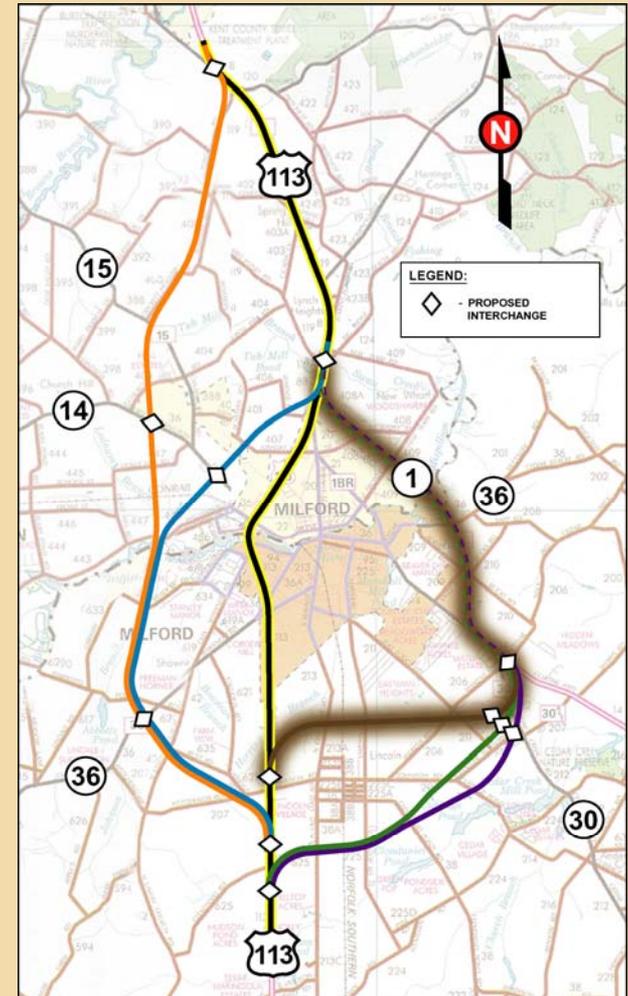
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	8 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	92 (5.9%)	25 (8.3%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	38 (9.7%)	45 (13.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.6%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (96.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (76.0%)	42 (42.4%)	42 (42.4%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	28
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Brown (East Bypass)

- **Engineering/Traffic/
Safety/Community**
 - **Advantages**
 - Moderate cost alternative
 - Takes advantage of existing SR 1 – not much new alignment
 - Good consistency with Livable Delaware (pending further discussion)
 - **Disadvantages**
 - Greatest overall length



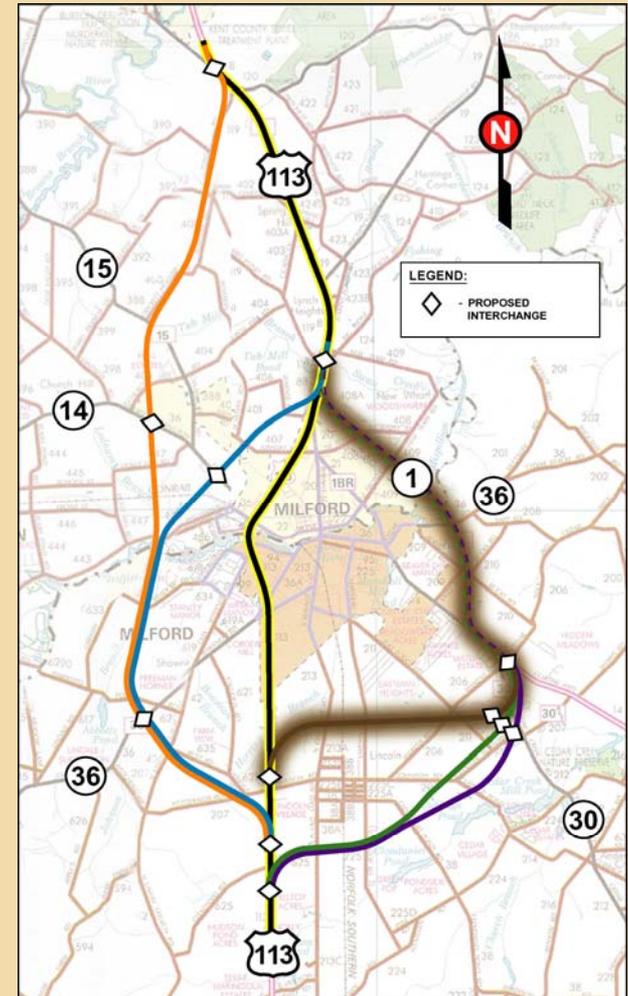
Milford Area Alternatives – Matrix

	No-Build	Yellow	Orange	Blue	Green	Purple	Brown
Wetlands and Waters of the US							
Wetlands (acres)	0	14	8.5	10.6	1.0	1.4	4.1
Waters of the US (linear feet)	0	689	1,149	1,262	521	346	1,050
Historic Resources							
Number of Historic Properties within Study Area ¹	0	11	6	7	0	2	3
Number of Properties Potentially Subject to Section 4(f) ²	0	7	0	0	0	0	0
Number of Cemeteries ³	0	1	0	0	1	0	0
Archaeological Resources							
Number of Known Archeological Sites in the Limit of Disturbance ⁴	0	1	1	1	0	0	0
Predictive Model: Prehistoric Sensitivity in the Limit of Disturbance ⁵							
High Sensitivity Area (acres / %)	0	7 (1.8%)	16 (2.3%)	19 (3.3%)	4 (1.1%)	3 (1.0%)	3 (2.0%)
Moderate Sensitivity Area (acres / %)	0	49 (12.4%)	70 (10.4%)	59 (11.7%)	22 (5.9%)	25 (8.5%)	55 (14.5%)
Low Sensitivity Area (acres / %)	0	54 (14.3%)	144 (21.2%)	124 (24.5%)	58 (9.7%)	45 (15.0%)	55 (17.4%)
Slight Sensitivity Area (acres / %)	0	270 (71.5%)	449 (65.1%)	297 (59.7%)	352 (83.7%)	310 (81.1%)	250 (65.0%)
Predictive Model: Early Historic Sensitivity in the Limit of Disturbance ⁶							
High Sensitivity Area (acres / %)	0	2 (0.4%)	5 (0.8%)	20 (4.1%)	3 (2.1%)	6 (1.8%)	6 (1.7%)
Moderate Sensitivity Area (acres / %)	0	9 (2.3%)	34 (5.0%)	26 (5.2%)	8 (1.9%)	8 (2.0%)	11 (3.0%)
Low Sensitivity Area (acres / %)	0	<1 (0.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Slight Sensitivity Area (acres / %)	0	365 (97.2%)	639 (94.2%)	453 (90.7%)	380 (98.0%)	368 (96.5%)	362 (95.3%)
Predictive Model: Sites of Historic Sensitivity in the Limit of Disturbance ⁷							
High Sensitivity Sites (number / %)	0	39 (18.8%)	34 (34.3%)	26 (26.3%)	19 (31.1%)	17 (26.8%)	15 (21.5%)
Moderate Sensitivity Sites (number / %)	0	152 (75.0%)	42 (42.4%)	42 (42.5%)	30 (49.2%)	33 (50.0%)	42 (57.5%)
Low Sensitivity Sites (number / %)	0	5 (2.4%)	4 (4.0%)	5 (5.2%)	3 (4.9%)	3 (4.5%)	4 (5.5%)
Section 4(f) Properties							
Number of Publicly-Owned Parks and Recreation Areas	0	0	0	0	0	0	0
Number of Publicly-Owned Wildlife and Waterfowl Refuges	0	0	0	0	0	0	0
Number of Historic Properties	0	7	0	0	0	0	0
Section 8(f) Properties							
Properties Purchased by Land & Water Conservation Fund (LWCF) (number)	0	0	0	0	0	0	0
Area (acres)	0	0	0	0	0	0	0
Properties Purchased by Delaware Trust Fund (DTF) (number)	0	1	0	0	0	0	0
Area (acres)	0	1	0	0	0	0	0
Natural Areas							
State Resource Areas	0	1	33	36	1	1	1
Natural Areas	0	1	29	30	1	1	1
Rare, Threatened and Endangered Species							
Potential Rare, Threatened and Endangered Species Areas (acres) ⁸	0	1	9	11	1	1	4
Other Considerations							
Agricultural Districts (Ten-Year) (number of properties)	0	0	4	2	1	1	0
(acres within properties)	0	0	39	11	4	5	0
Agricultural Preservation Easements (Permanent) (number of properties)	0	3	3	3	4	5	3
(acres within properties)	0	12	12	12	21	33	12
Forestland, 2002 Land Use (acres)	0	17	79	79	19	18	13
State Forest Lands	0	0	0	0	0	0	0
Property Impacts							
Properties affected (numbers of)	0	342	291	258	194	146	127
Properties affected (total acres)	0	272	664	409	362	370	419
Access Rights							
Acquisitions (numbers of affected properties)	0	26	7	27	27	49	20
Residential: total (existing residences approved lots)	0	29 (29/0)	52 (51/1)	59 (58/1)	59 (23/31)	48 (32/16)	20 (20/0)
Agricultural	0	20	5	10	5	11	11
Commercial	0	45	1	11	3	3	2
Other	0	0	1	1	0	0	0
Modified Access (numbers of affected properties)	0	37	5	5	31	27	30
Residential	0	21	3	0	25	21	22
Agricultural	0	8	2	2	4	4	5
Commercial	0	66	0	2	2	2	3
Other	0	2	1	0	0	0	0
Cost							
Preliminary anticipated cost range (\$ millions)	0	\$416 - \$512	\$420 - \$513	\$324 - \$395	\$299 - \$365	\$337 - \$411	\$339 - \$415
Living Delays							
Consistency with State Strategies and local comprehensive plans ⁹	N/A	VERY POOR	FAIR	POOR	GOOD	GOOD	GOOD ¹⁰
Engineering							
Existing US 113 BR 1 length (miles)	12.2	12.2	1.7	6.4	9.9	9.9	11.1
Proposed US 113 off-alignment length (miles)	0.0	0.0	10.8	7.2	4.6	4.6	4.0
Total length of alternative (miles)	12.2	12.2	12.5	13.6	14.5	14.5	15.1

Milford Area Alternatives

Brown (East Bypass)

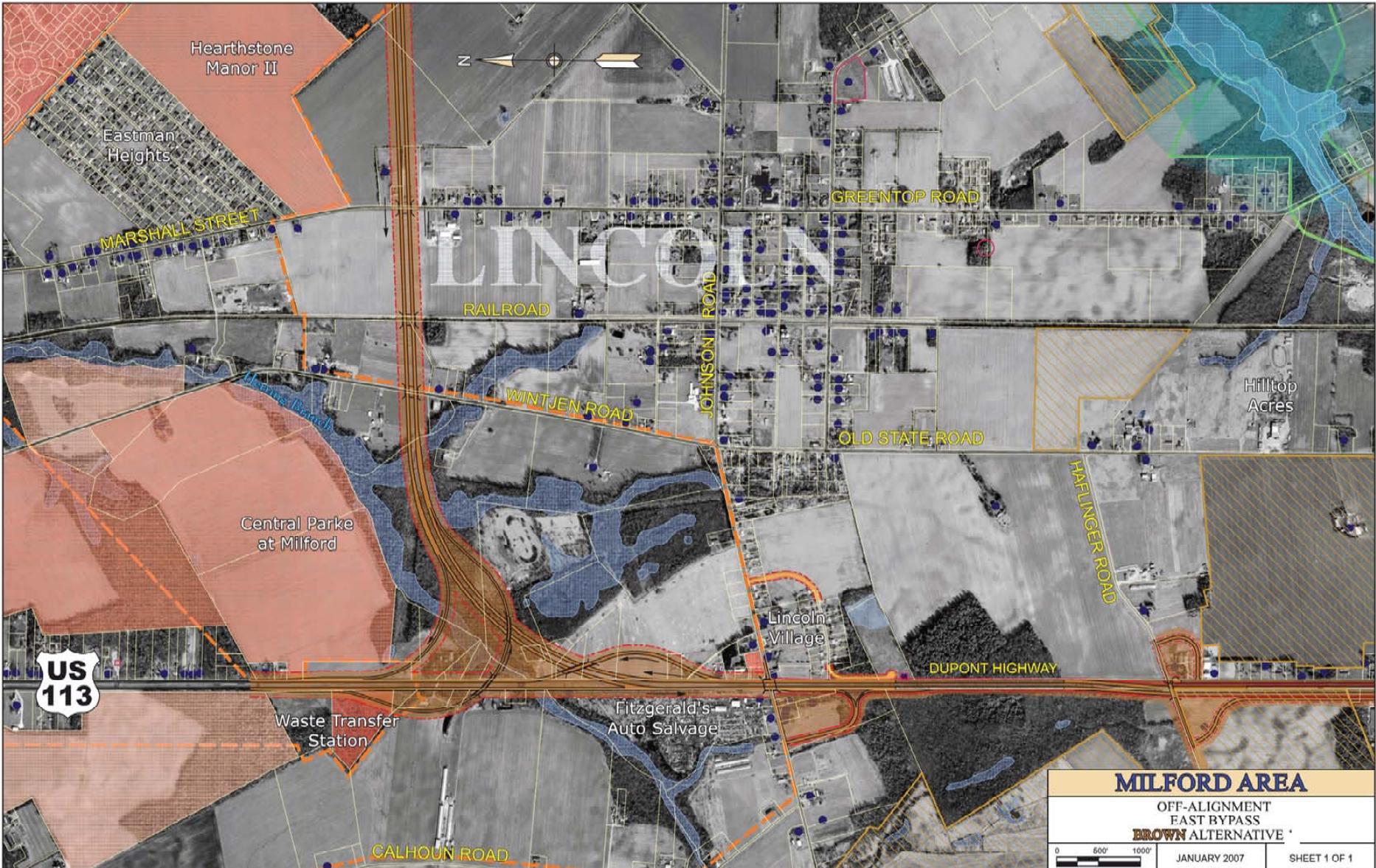
- Public Comments to Date
 - Working Group favors East; requested Brown be evaluated
 - Greater Lincoln community opposes Green and Purple; favors Brown



Milford Area Alternatives

Brown (East Bypass)

- **Discussions with the Agencies**
 - **September field view: agencies expressed concern regarding impacts to Herring Branch area**
 - Wetland acreage impacted is somewhat greater than Green and Purple
 - Quality of wetlands and adjacent forest is higher than the wetland area impacted by Green and Purple; it forms one contiguous habitat

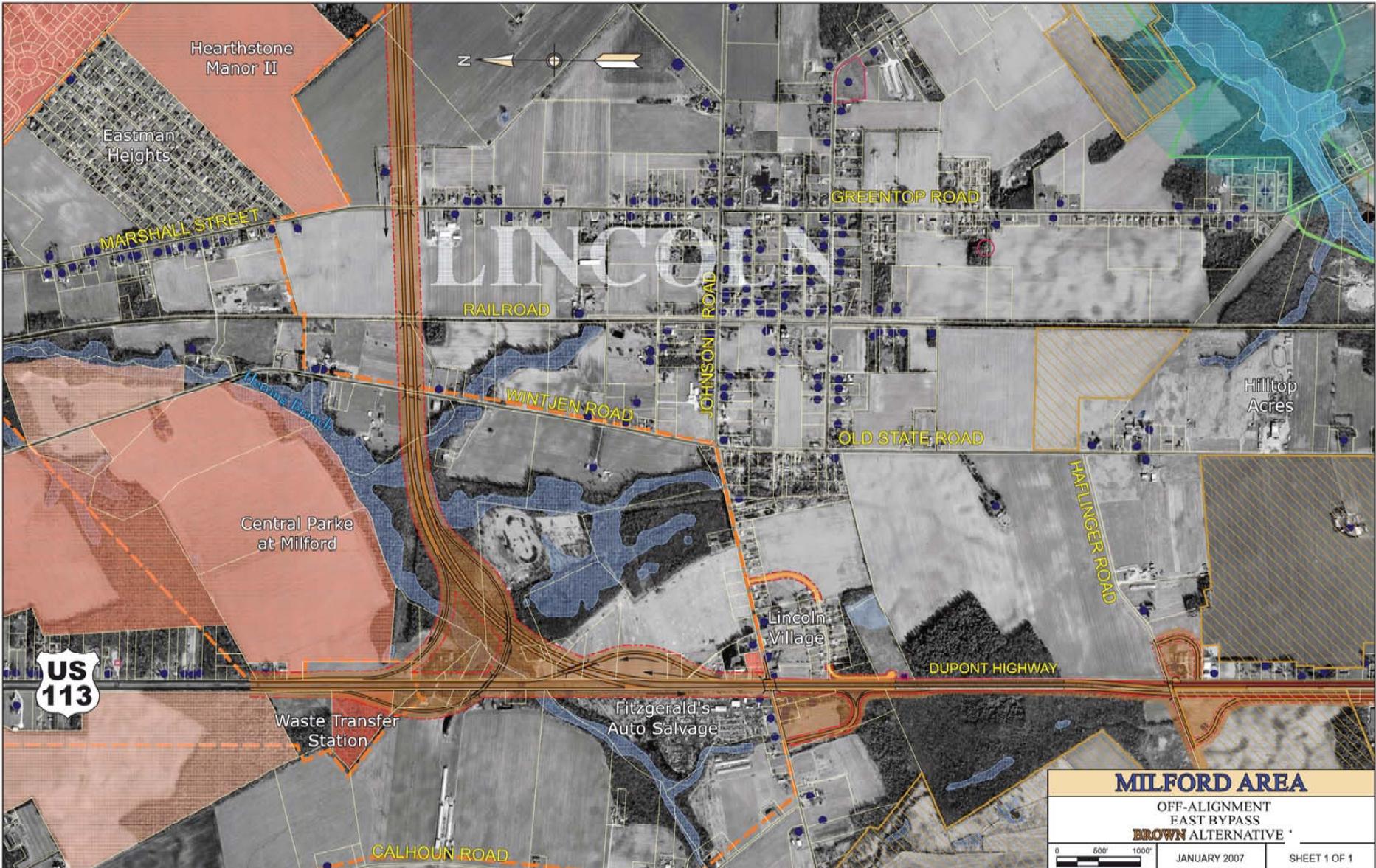


MILFORD AREA	
OFF-ALIGNMENT EAST BYPASS	
BROWN ALTERNATIVE	
	JANUARY 2007
SHEET 1 OF 1	

Milford Area Alternatives

Brown (East Bypass)

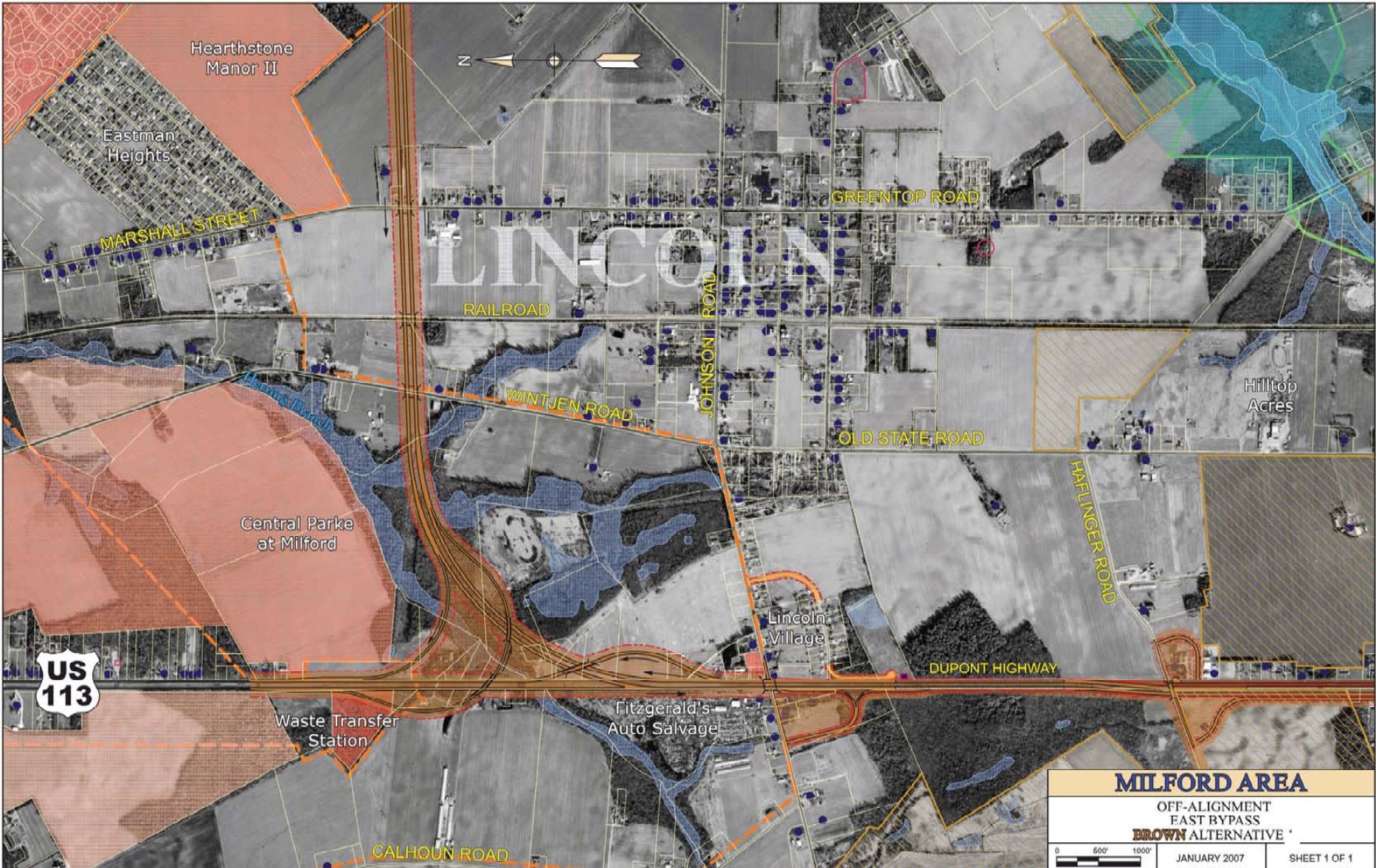
- September/October: DeIDOT looked at options to move Brown out of the Herring Branch area
 - Moving Brown south would place it much closer to Lincoln than either Green or Purple
 - This was not considered viable



Milford Area Alternatives

Brown (East Bypass)

- September/October: DeIDOT looked at options to move Brown out of the Herring Branch area
 - Moving Brown north would impact Central Parke, a 700+ unit development that is currently under construction



MILFORD AREA	
OFF-ALIGNMENT EAST BYPASS	
BROWN ALTERNATIVE	
0 500' 1000'	JANUARY 2007
SHEET 1 OF 1	

Milford Area Alternatives

Brown (East Bypass)

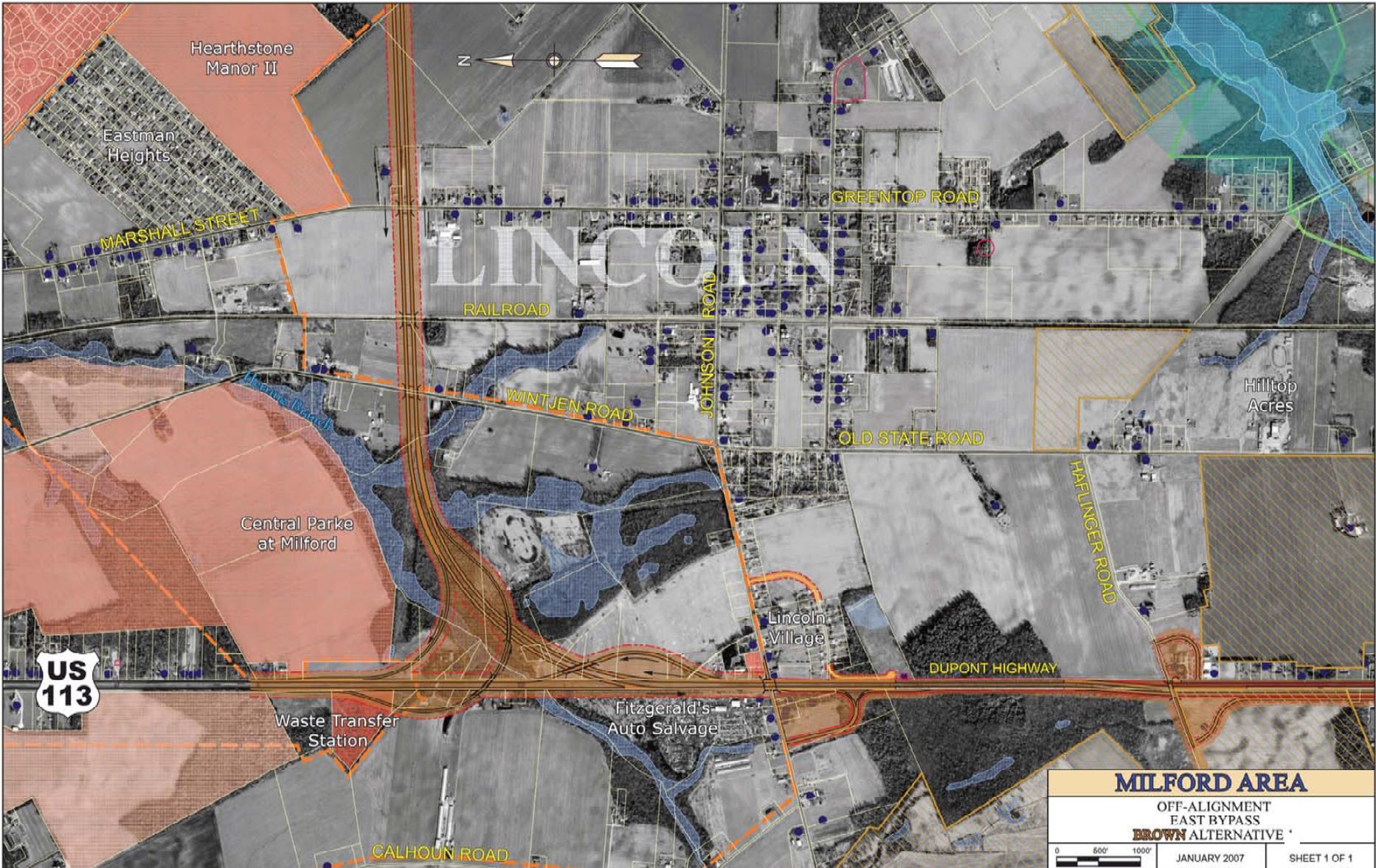
- Implications of impacting Central Parke:
 - Purchase the entire parcel in 2007: about \$30-35 million (including land, improvements, engineering, etc.) ... OR ...
 - Purchase about 100 homes after they are complete and relocate residents: about \$50-60 million, plus compensation for damages to community facilities
- DeIDOT does not consider either of these options viable



Milford Area Alternatives

Brown (East Bypass)

- November/December: DelDOT looked at options to keep Brown in the Herring Branch area, but reduce its impact
 - Narrower cross section
 - Removed or relocated ramps



Milford Area Alternatives

Brown (East Bypass)

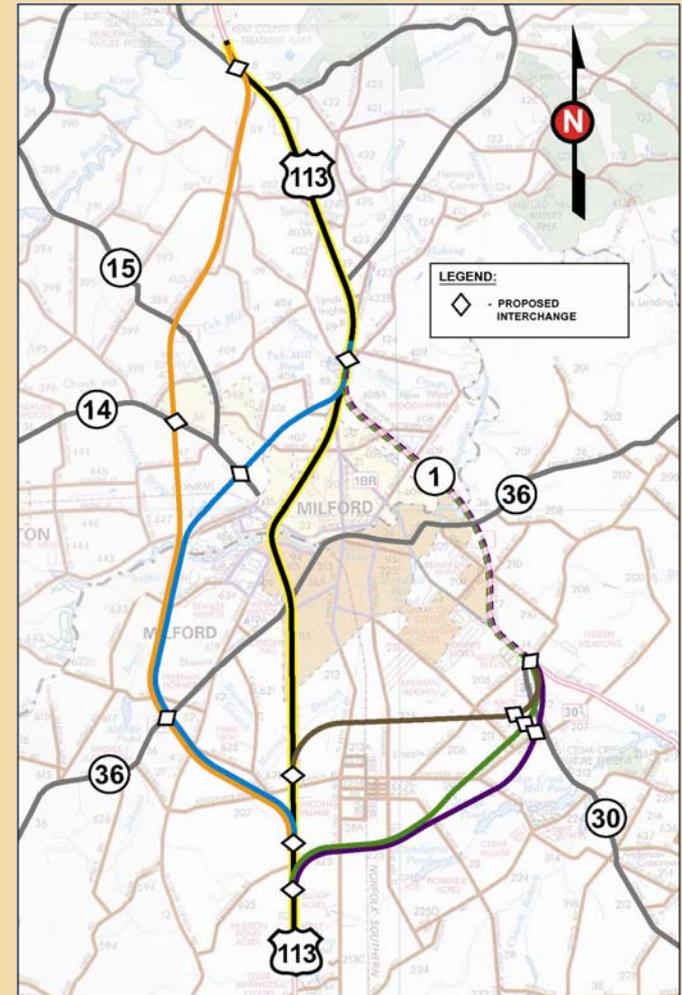
- **December:** The agencies indicated that even though the options considered reduced impacts in the Herring Branch area, the impacts for the Brown alternative remained greater than the Green and Purple alternatives.



Milford Area Alternatives

Summary of Agency Comments

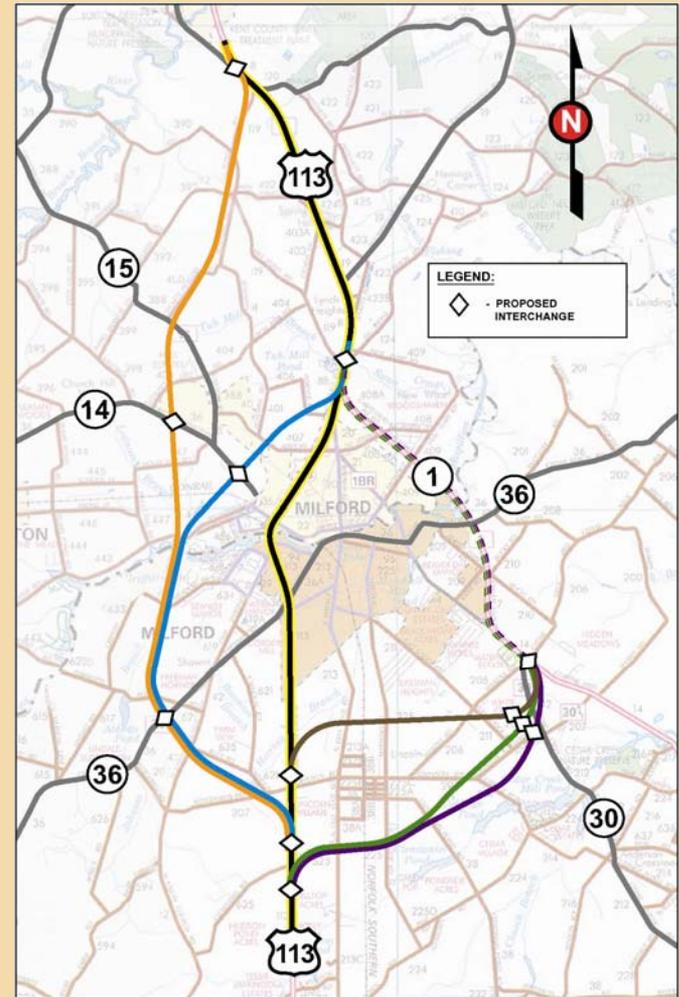
Because the East Bypass alternatives directly impact fewer and lower quality natural resources, they are considered less environmentally damaging alternatives than the West Bypass alternatives.



Milford Area Alternatives

Summary of Agency Comments

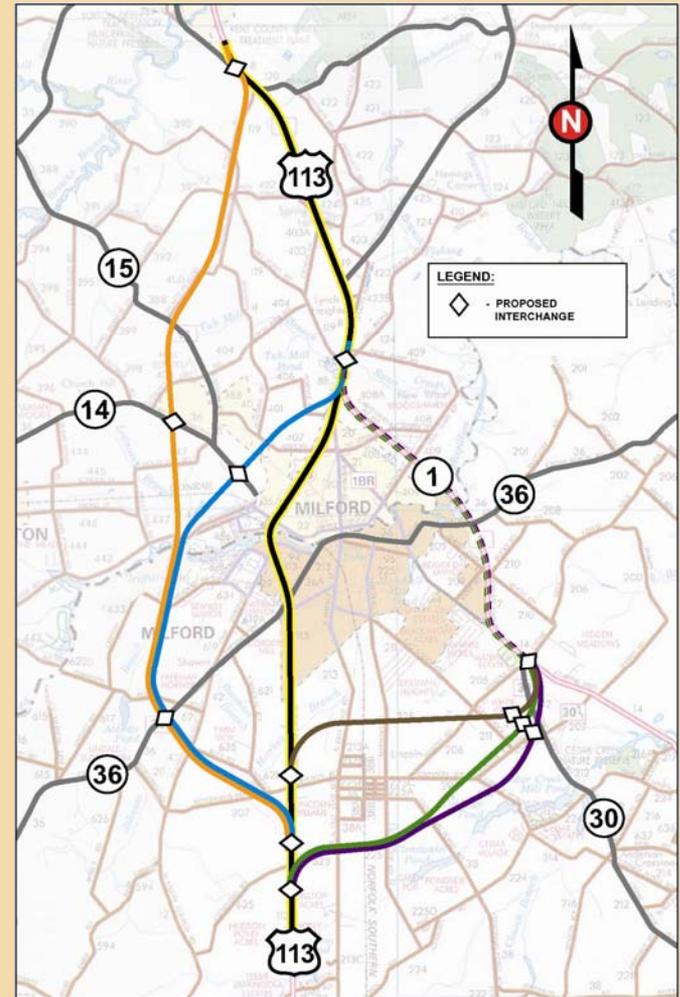
The environmental resource and regulatory agencies consider the East Bypass alternatives preferable to the West Bypass alternatives.



Milford Area Alternatives

Summary of Agency Comments

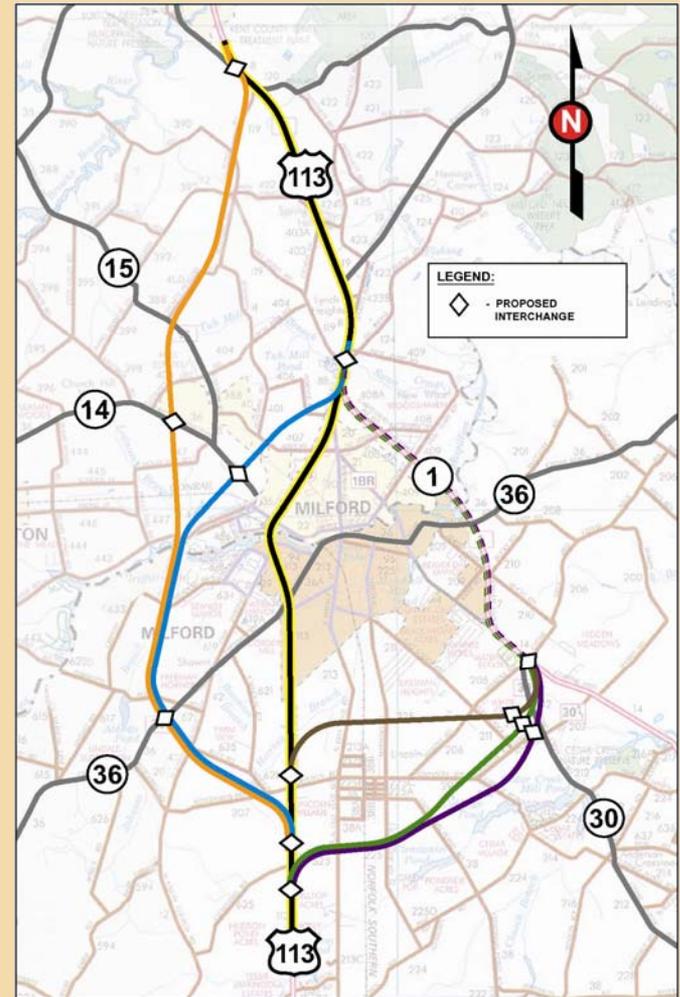
Because the Green and Purple alternatives directly impact fewer and lower quality natural resources, they are considered less environmentally damaging alternatives than the Brown alternative, which impacts and divides the higher quality wooded wetland and habitat complex around Herring Branch.



Milford Area Alternatives

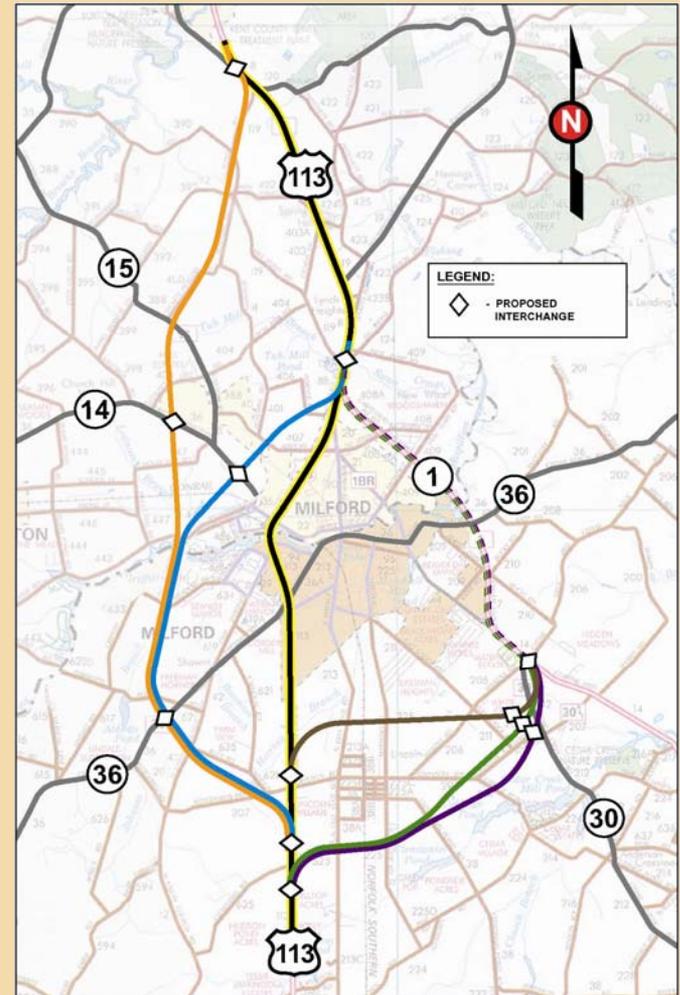
Summary of Agency Comments

The environmental resource and regulatory agencies consider the Green or Purple alternatives preferable to the Brown alternative.



Milford Area Alternatives Summary

The Project Team believes that the agency comments are supported by the results of the environmental evaluation to date.



Comments/Discussion

Schedule

- Our goal is to identify a recommended preferred alternative, and circulate a Draft Environmental Impact Statement containing that alternative, in May 2007.
- To do so, we hope to secure your recommendation by April 11, 2007.

Schedule

Milford Area		Georgetown-South Area	
Agencies	Working Groups/Workshops	Agencies	Working Groups/Workshops
December 12		December 12	
January 11			
		January 25	
	January 31 WG		
		February 8	February 6 (Millsboro) and 8 (Georgetown) WGs
		February 22	
	February 26 (Lincoln) and 27 (Milford) workshops to present update and brown alternative		
	March 7 WG		
March 14		March 14	March 12 (Millsboro) and 15 (Georgetown) workshops to discuss east-to-east alternative
	March 21 WG		
			March 27 (Millsboro) and 29 (Georgetown) WGs
		April 5	
	April 11 WG		
			May 1 (Millsboro) and 3 (Georgetown) WGs
		May 10	
			May 29 (Millsboro) and 31 (Georgetown) WGs
	June 11 and 12 public hearings	June 20	
			June 26 (Millsboro) and 28 (Georgetown) WGs

INITIATE recommended preferred alternative discussion
CONTINUE recommended preferred alternative discussion
END recommended preferred alternative discussion

Next Steps

Working Group Meeting Dates:

- Wednesday, March 7
- Wednesday, March 21
- Wednesday, April 11

Next Steps

Public Meeting Dates:

■ Public Workshops

- Monday, February 26, Lincoln
- Tuesday, February 27, Milford

■ DEIS Public Hearings

- Monday, June 11, Lincoln (TBD)
- Tuesday, June 12, Milford (TBD)