

OVERVIEW - RANGE OF ALTERNATIVES

RECOMMENDED For Further Detailed Evaluation

INTRODUCTION

- The Project Team conducted a "Listening Tour" of over 130 state, county and municipal officials, police and emergency services, civic organizations, business, environmental, and historic interest groups. In addition, since the June 20 & 21, 2005 Public Workshops, we have been busy meeting with many of the communities that might be affected by the alternatives being considered.
- From these discussions with the various stakeholders and our coordination meetings with the various federal and state environmental resource and regulatory agencies, we have developed the following project goals that will be used to evaluate alternative solutions to determine how well they:
 - ▶ Provide a new limited access roadway that separates through and seasonal traffic, particularly trucks, from local traffic, thus improving safety and preserving and enhancing the capacity on the local roadways for local traffic.
 - ▶ Provide efficient access to the new limited access roadway for local traffic traveling north and south of the study area.
 - ▶ Provide a roadway network that supports responsible and sustainable land development and economic growth and accommodates projected local, seasonal and through traffic.
 - ▶ Provide roadway solutions that first avoid, and if avoidance is not possible, minimize and mitigate adverse effects to communities, the natural environment and cultural resources.

The Project Team is grateful for all the comments and suggestions offered thus far (over 1,000) and we welcome your further involvement in this important US 301 Project Development Process.

Shown below is a partial comparison of the Range of Alternatives currently, under consideration. A more detailed comparison of the Range of Alternatives is provided on display boards 6 thru 12.

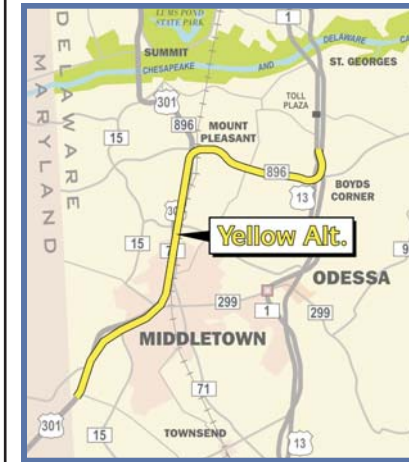
In addition, on this comment form, we offer an overview of each alternative considered in the Range of Alternatives including: a summary of public comments; a summary of the Environmental Effects of each Alternative; the Project Team engineering/traffic assessment of the advantages and disadvantages of each alternative; and a Project Team Recommendation (Retain for Further Detailed Evaluation or Drop from Further Consideration).

The Project Team would like to know your thoughts on the advantages and disadvantages of the Range of Alternatives being considered. We also would like your recommendation as to which alternatives to retain or drop. If you need help filling out the comment form, please ask one of the Project Team members wearing blue shirts and name tags for assistance, they will be glad to help you.

Environmental Effects	RANGE OF ALTERNATIVES									
	YELLOW ALT.	ORANGE ALT.	PURPLE ALT.	BROWN ALT.		GREEN ALT.		BLUE ALT.		RED ALT.
				NORTH	SOUTH	NORTH	SOUTH	NORTH	SOUTH	
ACOE Wetlands (acres)	47.9	45.5	18.5	18.1	16.6	24.8	23.0	29.3	45.9	27.4
Waters of the US (linear feet)	17,320	13,320	9,503	11,608	10,970	10,332	9,902	10,360	6,280	21,237
DNREC Tidal Wetlands (acres)	0	1.5	0	1.5	1.5	1.5	1.5	0	0	0
100 Year Floodplains (acres)	0.3	2.5	0.3	2.5	2.5	2.5	2.5	1.6	0	5.3
Agricultural Districts (acres)	14	14	28	28	28	28	28	0	< 0.01	28
Agricultural Preservation Easements (acres)	0	0	0	7	12	0	0	0	38	4
Prime Farmland Soil Area (acres)	168	220	282	398	381	299	276	226	293	340
Natural Areas (acres)	0.3	0	0.3	0	0	0	0	5.8	0	10.3
Forestland (acres)	31.5	34.6	33.2	32.9	48.6	31.0	36.5	58.4	66.9	86.7
Number of Public Parks/ Recreational Areas	2	2	0	1	1	0	0	1	0	9
Number of NRHP Properties	11 (+1) *	11	8 (+1) *	6	6	8	8	0	1	8

* There are eight properties with questionable National Register of Historic Places (NRHP) boundaries. The first number indicated the number of NRHP Listed or Determined Eligible properties using the Interpreted and Probable Boundaries. The number in parenthesis indicates any additional properties that may be impacted if the Estimated Boundaries (based on the verbal description in the nomination) are used.

YELLOW ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Retains the new roadways in existing roadway corridors (US 301 / Boyd's Corner Road)
- Improves safety by separating local from through traffic
- Mid-range cost to construct

Disadvantages

- Highest number of properties impacted, businesses and homes along existing US 301 and SR 896 will bear the brunt of the impact
- Higher potential for traffic impact during construction (along existing US 301 and SR 896)
- One-way frontage roads between Armstrong Corner and Boyd's Corner Roads - access to some properties circuitous
- Not possible to lower roadway profile, due to overpasses of Boyd's Corner Road (2) and Shallcross Lake Road, therefore, difficult to mitigate indirect impacts (noise, visual, etc.)

Cultural / Environmental Comments:

Advantages

- No DNREC Tidal Wetland impacts - 0 acres
- Mid-range Agricultural District impacts - 14 acres
- Lower Forestland impacts - 31.5 acres

Disadvantages

- The anticipated cultural resource impacts are greater - along existing roadways, but detailed evaluation is continuing to identify resources and assess potential effects
- Highest Wetland Impacts - 47.9 acres
- Higher Waters of the US impacts - 17,320 LF

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (79 Retain / 125 Drop)

Advantages

- Using existing roadway corridor is good - keeps trucks and traffic where they are now
- Affects only existing communities that are already on a major road

Disadvantages

- Concern that Yellow divides Middletown in two (Adverse impacts on community cohesion and established commercial enterprises)
- Too many properties impacted - businesses and homes along US 301 & SR 896 will suffer
- Concern that alternative will divide the proposed Bayberry development in two, impact the Cedar Lane Elementary School and take the New Covenant Church
- Concern that flyover ramp tie to SR1 at Boyd's Corner Road will create impact to Grande View Farms - visual, noise, etc. - difficult to mitigate impacts
- Effect on Cultural Resources is too great

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Your Comments on YELLOW ALTERNATIVE:

Advantages:

Disadvantages:

General Comments:

ORANGE ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Retains the new north/south roadway in existing roadway corridor (US 301)
- Moderate impact on existing communities (within 600 feet) - 4
- Improves safety by separating local from through traffic

Disadvantages

- Higher cost to construct (along existing US 301, length of roadway and service roads, highest number of overpasses)
- Higher impact on properties impacted, businesses and homes along existing US 301 will bear the brunt of the impact
- Higher potential traffic impact during construction (along Existing US 301)
- One-way frontage roads between Armstrong Corner and Boyds Corner Roads - access to some properties circuitous
- Impact on Summit Airport - not on existing runway, but on airport expansion plans

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (57 Retain / 114 Drop)

Advantages

- North-south roadway remains along existing US 301 Corridor - does not disturb residential areas

Disadvantages

- Would destroy businesses and make local access difficult
- Not desirable because of effect on Summit Airport
- Many people will continue to use SR 896 to access I-95
- Many communities affected
- Will produce more congestion and safety hazards
- Complex and costly with high impact on properties
- Concern that Orange divides Middletown in two (adverse impacts on community cohesion and established commercial enterprises)

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Cultural / Environmental Comments:

Advantages

- Mid-range Agricultural District impacts - 14 acres
- Lower Forestland impacts - 34.6 acres

Disadvantages

- The anticipated cultural resource impacts are greater for Orange - along existing roadways, but detailed evaluation is continuing to identify resources and assess potential effects
- Higher Wetland impacts - 45.5 acres
- Higher Waters of the US impacts - 13,320 LF
- Higher DNREC Tidal Wetland impacts - 1.5 acres
- Higher Floodplain impacts - 2.5 acres

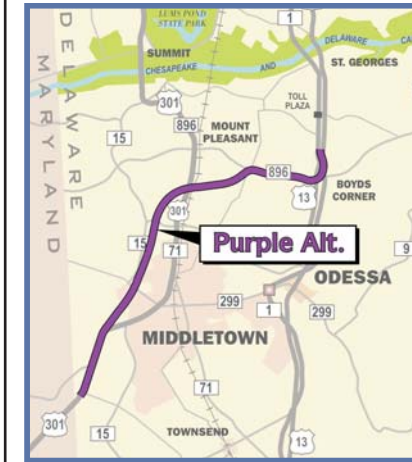
Your Comments on ORANGE ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

PURPLE ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Lower construction cost (moderate length, lower number of overpasses and lower number of interchanges)
- Mid-range number of properties impacted
- Mid-range impact on existing communities (within 600 feet) - 4
- Improves safety by separating local from through traffic

Disadvantages

- Potential impact on proposed new high school, west of Middletown, and Cedar Lane Elementary School
- Not possible to lower roadway profile, due to overpasses of Boyds Corner Road (2) and Shallcross Lake Road, therefore, difficult to mitigate indirect impacts (noise, visual, etc.) on adjacent land uses

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (156 Retain / 72 Drop)

Advantages

- Does not cut town of Middletown in half
- Less expensive, short, less maintenance cost
- Less environmental impacts
- Will not impact Summit Airport
- Less impact on existing houses - affects proposed development

Disadvantages

- Concern that alternative will divide the proposed Bayberry development in two, impact the Cedar Lane Elementary School and take the New Covenant Church
- Concern that flyover ramp tie to SR1 at Boyds Corner Road will create impact to Grande View Farms - (noise, visual, etc.) Difficult to mitigate impacts

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Cultural / Environmental Comments:

Advantages

- Lower Wetland impacts - 18.5 acres
- Mid-range Waters of the US impacts - 9,503 LF
- No DNREC Tidal Wetland impacts
- Lower Floodplain impacts - 0.3 acres
- Lower Forestland impacts - 33.2 acres

Disadvantages

- Higher Agricultural District impacts - 28 acres

Note: Detailed evaluation is continuing to identify cultural resources and assess potential effects

Your Comments on PURPLE ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

RECOMMENDED For Further Detailed Evaluation | RECOMMENDED For Further Detailed Evaluation

BROWN ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Lower number of properties impacted
- Lower impacts on traffic during construction
- Improves safety by separating local from through traffic

Disadvantages

- Higher cost alternative
- Longer Alternative - 15 miles
- Highest number of interchanges - 5 N / 4 S
- Highest number of overpasses - 7 N / 8 S - Higher construction cost
- Complex interchange at US 301 / SR 896, south of Summit Bridge - difficult to mitigate indirect effects (noise, visual, etc.) on Lea Earra Farms West and Summit Bridge Farms communities
- Highest number of existing adjacent communities (within 600') - 6
- Indirect impact on proposed new school, west of Middletown, and St. George's Technical High School
- Impacts on Summit Airport - FAA designated reliever airport, 85 employees, 100 based aircraft, State Police helicopter operations

Cultural / Environmental Comments:

Advantages

- Lowest Wetland impacts - 18.1 N / 16.6 S acres
- Mid-range Waters of the US impacts - 11,608 N / 10,970 S LF
- Mid-range impacts to cultural resources based on efforts to date, but detailed evaluation is continuing to identify resources and assess potential effects

Disadvantages

- Higher DNREC Tidal Wetland impacts - 1.5 N & S acres
- Higher Floodplain impacts - 2.5 N & S acres
- Highest Agricultural District impacts - 28 N & S acres
- Low to mid-range Forestland impacts - 32.9 N / 48.6 S acres

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (50 Retain / 161 Drop)

Advantages

- Through traffic will not impact the local traffic
- Moves traffic away from downtown Middletown

Disadvantages

- Negative impacts on existing communities
- Impact to Summit Airport would be too great
- Trucks and cars will tend to use SR 896 - more traffic on Summit Bridge

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Your Comments on BROWN ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

GREEN ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Mid-range construction cost (mid-range length, mid-range number of interchanges and lowest number of overpasses)
- Lowest impact on existing communities (within 600 feet) - 2 S / 3 N
- Higher potential to minimize effects on adjacent communities since alternative passes under most local roads
- Split diamond at existing US 301 and Boyds Corner Road reduces impacts (N)
- Lower impacts on traffic during construction
- Improves safety by separating local from through traffic
- Lower number of properties affected

Disadvantages

- Skewed (angled) crossing of Scott Run (environmental impacts) (S)
- Potential indirect impact on proposed new high school, west of Middletown, and Cedar Lane Elementary School (S)
- Potential indirect impact on St. George's Technical High School (N only)

Cultural / Environmental Comments:

Advantages

- Mid-range Wetland impacts - 24.8 N / 23 S acres
- Mid-range Waters of the US impacts - 10,322 N / 9,902 S LF
- Lower Forestland impacts - 31 N / 36.5 S acres

Disadvantages

- Higher DNREC tidal wetland impacts - 1.5 N & S acres
- Higher Floodplain impacts - 2.5 N & S acres
- Highest Agricultural District impacts - 28 N & S acres

Note: Detailed evaluation is continuing to identify cultural resources and assess potential effects

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (219 Retain / 50 Drop)

Advantages

- Direct route, low impacts, fewer bridges, less expensive
- Will not impact Summit Airport
- Has minimum impact on existing and proposed communities (S)

Disadvantages

- Too close to proposed new High School, west of Middletown, and Cedar Lane schools
- Goes through Whitehall and near Bayberry and St. George's Technical High School (N)

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Your Comments on GREEN ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

RECOMMENDATION Following Public and Resource Agency Input | NOT RECOMMENDED For Further Consideration

BLUE ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Shortest alternative - 6.3 N / 6.8 S miles
- Lowest cost alternative
- Lowest number of properties impacted
- Improves safety by separating local from through traffic

Disadvantages

- Carries the lowest traffic volumes on new US 301 - 20,000-26,000 vpd (vehicles per day) vs. 30,000-55,000 vpd for other alternatives
- Results in the highest volume of traffic on US 301 North of Middletown, on Cedar Lane Road, and on SR 299 through Middletown, thus requiring additional improvements to local roads in Middletown area

More detailed traffic analysis required to determine whether the alternative meets the Project Purpose and Need

Public Comments:

- At the June Public Workshops, there were 59 members of the public who requested that additional alternatives be considered; of these, 42 requests were to add a southern alternative. As a result, the Project Team added to our Range of Alternatives an alignment south of Middletown that would directly connect US 301 with SR 1.
- The Project Team has designated the southern alternative as the Blue Alternative, and it has two options, North and South, as shown on the map to the left.
- Since the June Public Workshops, the Project Team has received many comments regarding the Blue Alternative, the majority of which were in opposition to this alternative.

Cultural / Environmental Comments:

Advantages

- Mid-range Wetland impacts - 29.3 N acres
- Mid-range to Low Waters of the US impacts - 10,360 N / 6,280 S LF
- No DNREC Tidal Wetland impacts
- Mid-range to Lower Floodplain impacts - 1.6 N / 0 S acres
- No Agricultural District impacts

Disadvantages

- May not be consistent with goals and objectives of "Livable Delaware" - additional analysis required.
- Higher Wetland impacts - 45.9 acres N
- Mid-range Forestland impacts - 58.4 N / 66.9 S acres
- Highest potential impact to Rare, Threatened and Endangered Species

Note: Detailed evaluation is continuing to identify cultural resources and assess potential effects

Project Team Recommendation: *

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

* Recommendation to Retain or Drop Blue Alternative will be made after receipt of Public and Resource Agency input

Your Comments on BLUE ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

RED ALTERNATIVE



Engineering / Traffic Comments:

Advantages

- Improves safety by separating local from through traffic

Disadvantages

- Longest alternative - 17.4 miles
- Highest cost alternative
- Highest number of interchanges - 7
 - New I-95 / SR 896 / OBP Interchange (costly/complex management of traffic during construction)
 - New interchange at US 40/SR 896 (complex management of traffic during construction), also recommended by Route 40 Transportation Plan
- Higher number of overpasses - 9
- Includes new bridge across C&D Canal (requires securing Corps approval and funding / congressional action)
- Higher number of properties impacted

Public Comments:

- Public comments received by the comment period ending July 22, 2005 (31 Retain / 75 Drop)

Advantages

- Provides an additional north/south expressway corridor accessing I-95
- Results in most direct route to I-95

Disadvantages

- Greatest area of impact
- Highest cost alternative
- Significant impacts to natural environment and cultural resources

Project Team Recommendation:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

What Do You Recommend:

- RETAIN for Detailed Evaluation
 DROP from Further Consideration

Note: Detailed evaluation is continuing to identify cultural resources and assess potential effects

Your Comments on RED ALTERNATIVE:

Advantages: _____

Disadvantages: _____

General Comments:

