

# ALTERNATIVE RETAINED FOR DETAILED EVALUATION - PURPLE + SPUR ALTERNATIVE

## 301 US 301 Project Development

### DESCRIPTION OF THE PURPLE + SPUR ALTERNATIVE 4 LANES - LIMITED ACCESS - ALONG EXISTING BOYDS CORNER ROAD & ON NEW LOCATION

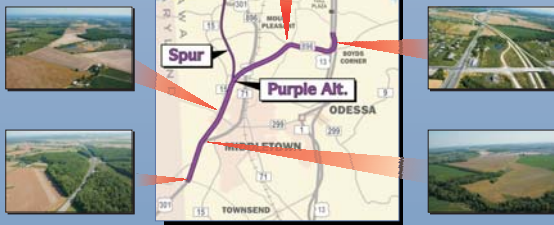
The Purple+Spur Alternative would be a four-lane, limited access tolled highway constructed on new location, generally north/south, from the Delaware/Maryland state line to north of Armstrong Corner Road, north of Middletown. The new alignment would continue northeast to SR 896 west of Jamison Corner Road and Cedar Lane Road, where the alignment would parallel existing Boyds Corner Road (SR 896) and tie into SR 1 just north of the SR 1/Boys Corner Road interchange and south of the existing Biddies Corner Toll Plaza. A two-lane, limited access spur roadway would extend from north of Armstrong Corner Road to just south of the Summit Bridge, with a diamond interchange at the Spur/SR 15/SR 896.

US 301 at Cedar Lane Middle & Elementary Schools  
(Looking east along Boyds Corner Road)



Existing Condition

Rendering of PURPLE + SPUR Alternative  
(Yellow Alternative is similar at this location)



### MODIFICATIONS SINCE THE SEPTEMBER 2005 WORKSHOPS

Provides 2-lane Spur, from vicinity of Armstrong Corner Road to Summit Bridge, with interchange at Spur/SR 15/SR 896

- Advantages:**
- Provides a balanced traffic solution by optimizing the existing capacity of the C&D Canal bridges (Summit, SR 1 & St. George's)
  - Addresses the major issues at the south end of the Summit Bridge, where severance accidents and fatalities have occurred
  - Minimizes total roadway improvement costs required in the SR 896 and SR 1 corridors, north of the Canal (2005-2030)

- Disadvantages:**
- Proximity of Spur to existing communities (within 600') Post and Rail Farms, Chesapeake Meadow, Summit Bridge Farms
  - Additional property acquisition
  - Increased project costs

Refined US 301 connection to SR 1

- Advantages:**
- Allows drivers on proposed US 301 to avoid having to pay tolls twice
  - The combined ramp requires the widening of the SR 1 bridge over South Run, north of the toll plaza
  - The southbound ramp runs very close to Hyatt's Corner Rd
  - Creates an additional ramp north of the toll plaza
  - A large part of the construction is simply widening out from the existing lanes
  - Minimal impacts are retained

- Disadvantages:**
- Widening at the toll plaza increases and additional property acquisition will be required
  - The combined ramp requires the widening of the SR 1 bridge over South Run, north of the toll plaza
  - The southbound ramp runs very close to Hyatt's Corner Rd
  - Creates an additional ramp north of the toll plaza
  - Eliminates the connection from the toll plaza to the visitor parking area at the toll plaza building
  - Eliminates the surface access from the toll plaza building to the toll plaza

The refined US 301 connections to SR 1 require relocating the existing ramps from US 13 to NB SR 1 and from SB SR 1 to US 13, currently located just south of the C&D Canal. These ramps would be relocated to just north of the US 13/SR 72 intersection, about 3.5 miles to the north. These new ramps were first proposed by DeDOT in the mid 1990's

- Advantages:**
- Relocates the existing substantial US 13 to NB SR 1 ramp that is located just north of the toll plaza (operates as a free ramp across C & D Canal)
  - Relocation of the existing northbound on-ramp from US 13 to northbound SR 1 allows the new US 301 ramps to tie to SR 1, north of the existing toll plaza, by safely bypassing the toll plaza area
  - Relocation of the ramp allows for better lane balance and safer traffic operations approaching the SR 1 Canal bridge
  - The relocated ramps provide better use of the available highway capacity on US 13

- Disadvantages:**
- Currently, Lanwood Green Road drivers can use the existing free ramp to go north on SR 1. Under this option, the free movement will now occur 3.6 miles farther north
  - Traffic from southern Lee County and US 13, south of the Canal, will now need to use St. George's Bridge
  - The new direct connection north of the C&D Canal will require an unconventional intersection design with the SB ramp from SR 1 to US 13
  - There may be contaminated soils in the proposed interchange area that may increase the cost of construction of the new ramps

Provide Interchange at Armstrong Corner Road or at Relocated Existing US 301

Option 1: Diamond Interchange at Armstrong Corner Road

- Advantages:**
- Minimizes impacts to large wetland area (north of new US 301, south of Old Schoolhouse Road)
  - Offsets much of existing Armstrong Corner Road alignment
  - Lower ROW impacts compared to interchange on relocated US 301 (Option 2)
  - Fewer structures required than alternative with relocated US 301 (Option 2) Note: If Armstrong Corner Road takes over new US 301, number of structures is the same
  - Uses proposed signal at existing US 301 and Armstrong Corner for local access from existing US 301 to new US 301

- Disadvantages:**
- Ramp spacing between Spur and diamond interchange barely meets AASHTO minimum standards of 1000' feet
  - Indirect route for vehicles traveling west on Armstrong Corner/ Bohemia Mill Roads
  - Requires relocation of Middlebrook Baptist Church
  - Undesirable slope of bridge over US 301 and Norfolk Southern Railroad
  - Interchange of local and new US 301 traffic on local road (Armstrong Corner) not on existing US 301

Option 2: Diamond Interchange at Relocated Existing US 301

- Advantages:**
- Minimizes impacts to large wetland area (north of new US 301, south of Old Schoolhouse Road)
  - Greatly improved spacing between Spur interchange and new US 301 / Relocated Existing US 301
  - Reduced impact to Middlebrook Baptist Church
  - Provides direct route for vehicles traveling west on Armstrong Corner/ Bohemia Mill Roads
  - Creates interchange of local traffic with new US 301 traffic on existing US 301, not on local road (Armstrong Corner)

- Disadvantages:**
- High ROW and displacement impacts in interchange area compared to Option 1
  - Increased construction cost due to additional structures and need to relocate short section of existing US 301
  - Undesirable slope of bridge over US 301 and Norfolk Southern Railroad
  - Introduces two additional signals on existing US 301, in addition to the proposed signal on existing US 301 at Armstrong Corner

US 301 Alignment shifted south at existing US 301

- Recommended by the Corps of Engineers to significantly reduce wetland impacts**

Minor Refinements

- Strawberry Lane Overpass added

Please visit Purple Alternative Work Table to review detailed drawings and ask questions

### ENGINEERING - TRAFFIC & SAFETY CONSIDERATIONS

#### ENGINEERING / TRAFFIC

**Advantages**

- Mid-number of properties impacted
- Low impact on existing communities (within 600 feet)
- Improves safety by separating local from through traffic, including truck traffic
- Significant reduction in traffic on existing US 301, Boyds Corner Road, Cedar Lane Road, Choptank Road and SR 299
- Third highest volume using new US 301

**Disadvantages**

- Higher potential for traffic impacts during construction along existing Boyds Corner Road
- Proximity to new Appoquinimink High School (under construction) west of Middletown, Cedar Lane Elementary School and Middle School (under construction)
- Not possible to lower new US 301 roadway profile along Boyds Corner Road, due to overpasses of Boyds Corner Road (2), realigned Shallcross Lake Road, US 13 and SR 1; therefore, difficult to mitigate indirect impacts (noise, visual, etc.) on adjacent communities
- Overall width of SR 896 and new US 301 creates significant barrier
- 2nd highest cost to construct
- Requires acquisition of the New Covenant Church

#### Comparison of the Retained Alternatives - Engineering

Alternative	US 301	Yellow	Purple	Brown	Green
Construction Cost	High	Medium	Low	Low	Low
Wetland Impacts	High	Medium	Low	Low	Low
Waters of the US Impacts	High	Medium	Low	Low	Low
Forestland Impacts	High	Medium	Low	Low	Low
Species Habitat Areas	High	Medium	Low	Low	Low
Wildlife & Plants	High	Medium	Low	Low	Low
Properties Impacted	High	Medium	Low	Low	Low
Community Impacts	High	Medium	Low	Low	Low
Construction Impacts	High	Medium	Low	Low	Low
Overall Rating	Low	Medium	High	High	High

### CULTURAL & ENVIRONMENTAL RESOURCES

**Advantages**

- Lowest wetland impacts
- Lowest high quality wetlands impacts
- Mid-range Waters of the US impacts
- No DNREC Tidal Wetland impacts
- Low floodplain impacts
- Low floodplain impacts
- Mid-range forestland impacts
- Mid-range impact to Species Habitat Areas (wildlife & plants)

**Disadvantages**

- High Agricultural District impacts
- Potential noise and visual effects on Vandergrift property (Historic)
- High number of residential noise impacts

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

#### Comparison of the Retained Alternatives - Cultural Resources

Alternative	US 301	Yellow	Purple	Brown	Green
High Agricultural District Impacts	High	Medium	Low	Low	Low
Historic Property Impacts	High	Medium	Low	Low	Low
Residential Noise Impacts	High	Medium	Low	Low	Low
Wetland Impacts	High	Medium	Low	Low	Low
Waters of the US Impacts	High	Medium	Low	Low	Low
Forestland Impacts	High	Medium	Low	Low	Low
Species Habitat Areas	High	Medium	Low	Low	Low
Wildlife & Plants	High	Medium	Low	Low	Low
Properties Impacted	High	Medium	Low	Low	Low
Community Impacts	High	Medium	Low	Low	Low
Construction Impacts	High	Medium	Low	Low	Low
Overall Rating	Low	Medium	High	High	High

#### Comparison of the Retained Alternatives - Natural Resources

Alternative	US 301	Yellow	Purple	Brown	Green
Wetland Impacts	High	Medium	Low	Low	Low
Waters of the US Impacts	High	Medium	Low	Low	Low
Forestland Impacts	High	Medium	Low	Low	Low
Species Habitat Areas	High	Medium	Low	Low	Low
Wildlife & Plants	High	Medium	Low	Low	Low
Properties Impacted	High	Medium	Low	Low	Low
Community Impacts	High	Medium	Low	Low	Low
Construction Impacts	High	Medium	Low	Low	Low
Overall Rating	Low	Medium	High	High	High

### PUBLIC COMMENTS FROM SEPTEMBER WORKSHOP

(Purple Alternative DID NOT include Spur at that time)

- Comments received as of October 17, 2005 - (331 Retain / 99 Drop)

**Positive**

- A direct route that fixes traffic problems, keeps traffic near Boyds Corner, provides better local access
- Separates local from through traffic, helps truck traffic
- Uses existing roadway corridor (Boys Corner Road)
- Strikes a good balance among the issues
- Less property and environmental impacts
- A lower cost approach
- Doesn't divide Middletown; keeps the town whole
- Will do a good job of keeping traffic moving

**Negative**

- Extremely wide roadway corridor (new US 301 & Boyds Corner Road)
- Impacts existing and new schools
- Will destroy Choptank Road open space
- Too close to several existing developments
- Will require acquisition of the New Covenant Church
- This alternative will cause negative impacts to an agricultural district
- Impact to four existing and four proposed communities

### SUMMARY OF COMMENTS RECEIVED FROM THE PUBLIC AS OF OCTOBER 17, 2005

RETAINED ALTERNATIVES	YELLOW	PURPLE	BROWN	GREEN
Support / Retain	123	331	120	594
Oppose / Drop	259	99	259	139

A total of 1,056 public comments were received from the September workshops, the project office, e-mail, mail and phone.