

ALTERNATIVE RETAINED FOR DETAILED EVALUATION - GREEN + SPUR ALTERNATIVE

301 US 301 Project Development

DESCRIPTION OF THE GREEN + SPUR ALTERNATIVE 4 LANES - LIMITED ACCESS - ON NEW LOCATION

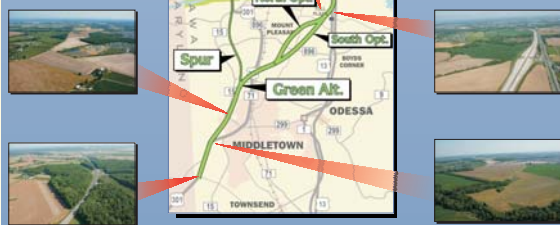
The Green + Spur Alternative would be a four-lane, limited access tolled highway constructed on new location, extending north from the Delaware/Maryland state line to north of Armstrong Corner Road, north of Middletown, then continue generally northeast to tie into SR 1 north of the Biddles Corner Toll 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. The North Option extends north-northeast passing over Boyd's Corner Road, about 3700 feet west of Cedar Lane Road and continues north-northeast before curving east, south of the Airmont Community before tying into SR 1. The South Option extends in a northeast direction to the West of Cedar Lane Elementary School then passes over Boyd's Corner Road and between the proposed Village of Bayberry and Scott Run Business Park at Whitehall before tying into SR 1.

GREEN+SPUR Alternative at Airmont
(Looking east along Hwy's Corner Road)



Existing Condition

Rendering of GREEN NORTH Alternative
(Green South in background)



REVISIONS SINCE THE SEPTEMBER 2005 WORKSHOPS

Green North

- Revised crossing of Boyd's Corner Road, Route 896 to provide a better alignment in order to further reduce wetland impacts

Green South

- Revised alternative to provide a straighter crossing of Scott Run

Green North and South

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

- Provides a balanced traffic solution by optimizing the existing capacity of the C&D Canal bridges (Summit, SR 1 & St. George's)
- Addresses the sharp curve at the south end of the Summit Bridge, where numerous 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)

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

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 3.6 miles to the north. These new ramps were first proposed by DeIDOT in the mid 1990's

- Relocates the existing substandard 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)
- Relocates 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

- Currently, Limited Access 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 further north
- Traffic from southern New Castle 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

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

- Ramp spacing between Spur and diamond interchange barely meets AASHTO minimum standards of 1000' feet
- Indirect route for vehicles traveling west on Armstrong Corner/ Bahama 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

- Minimizes impacts to large wetland area south 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/ Bahama Mill Roads
- Creates interchange of local traffic with new US 301 traffic on existing US 301, not on local road (Armstrong Corner)

- High ROW and displacement impacts in interchange area compared to Option 1
- Revised construction road 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
- Increases 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 Green Alternative Work Table to review detailed drawings and ask questions

ENGINEERING - TRAFFIC & SAFETY CONSIDERATIONS

ENGINEERING / TRAFFIC

Advantages

- Mid-range cost
- Lowest impact on existing communities (within 600 feet)
- Higher potential to minimize effects on adjacent communities since alternative passes under most local roads
- Lowest impacts on traffic during construction
- Improves safety by separating local from through traffic, including truck traffic
- Mid-range number of properties impacted
- Green South reduces indirect effects on the Airmont community (Scott Run Business Park would provide a buffer) and St. George's Vo-Tech High School
- Significant reduction in traffic on existing US 301, Boyd's Corner Road, Cedar Lane Road, Choptank Road and SR 299
- Highest volume using new US 301

Disadvantages

- Skewed (angled) crossing of Scott Run (environmental impacts) - South Option
- Proximity to new Appoquinimink High School (under construction) west of Middletown, and Cedar Lane Elementary School and Middle School (under construction) - South Option
- Potential indirect effect on the Airmont Community and St. George's Vo-Tech High School - North Option

Comparison of the Retained Alternatives - Engineering

Alternative	US 301	Spur	Green North	Green South	Green North + Spur	Green South + Spur	Green North + Spur + Green South
Construction Cost	100	100	100	100	100	100	100
Impacts on Existing Communities	Low	Low	Low	Low	Low	Low	Low
Impacts on Traffic	Low	Low	Low	Low	Low	Low	Low
Properties Impacted	Low	Low	Low	Low	Low	Low	Low
Indirect Effects	Low	Low	Low	Low	Low	Low	Low
Volume	High	High	High	High	High	High	High

CULTURAL & ENVIRONMENTAL RESOURCES

Advantages

- Mid-range wetland impacts
- Mid-range high quality wetlands impacts
- Lowest Waters of the US impacts
- Mid-range forestland impacts
- Low-Lowest impact to Species Habitat Areas (wildlife & plants)
- Low residential noise impacts

Disadvantages

- High DNREC Tidal Wetland impacts
- High floodplain impacts
- High Agricultural District impacts

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

Comparison of the Retained Alternatives - Cultural Resources

Alternative	US 301	Spur	Green North	Green South	Green North + Spur	Green South + Spur	Green North + Spur + Green South
Cultural Resources	Low	Low	Low	Low	Low	Low	Low
Wetlands	Low	Low	Low	Low	Low	Low	Low
Floodplains	Low	Low	Low	Low	Low	Low	Low
Species Habitat	Low	Low	Low	Low	Low	Low	Low
Forestland	Low	Low	Low	Low	Low	Low	Low
Residential Noise	Low	Low	Low	Low	Low	Low	Low

Comparison of the Retained Alternatives - Natural Resources

Alternative	US 301	Spur	Green North	Green South	Green North + Spur	Green South + Spur	Green North + Spur + Green South
Natural Resources	Low	Low	Low	Low	Low	Low	Low
Wetlands	Low	Low	Low	Low	Low	Low	Low
Floodplains	Low	Low	Low	Low	Low	Low	Low
Species Habitat	Low	Low	Low	Low	Low	Low	Low
Forestland	Low	Low	Low	Low	Low	Low	Low
Residential Noise	Low	Low	Low	Low	Low	Low	Low

PUBLIC COMMENTS FROM SEPTEMBER WORKSHOPS

(Green Alternative DID NOT include Spur alignment at that time)

- Comments received as of October 17, 2005 - 594 Retain / 139 Drop

Positive

- More direct route, keeps traffic out of Middletown, doesn't cut the town in half, lessens congestion
- Will save fuel and time
- Gets traffic out of business district
- This alternative has a lot of public support
- Moderate construction cost
- Less impact on existing residences and businesses and on the environment
- Good solution to traffic problems, less disruption during construction, handles trucks better
- Fewer overall negative impacts
- Changes can be made to proposed developments to accommodate the new road
- Meets goals and objectives of the project

Negative

- Harmful impacts on Vo-Tech and new Appoquinimink High School
- Damages farmland
- Negative impacts on individuals' properties and specific communities
- Negative impact on open land

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.