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# INTERCHANGE OPTIONS - ARMSTRONG CORNER ROAD AREA

## PURPLE + SPUR AND GREEN + SPUR



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301

### Option 1

#### Description

- Provides diamond interchange between new US 301 and Armstrong Corner Road



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#### Advantages

- Lower wetland impacts than Option 2 and 3
- Utilizes existing Armstrong Corner Road alignment (reduces costs)
- Located farther away from Springmill community than Options 2 & 3
- Uses proposed signal at Armstrong Corner Road for local access from existing US 301 to new US 301 (minimizes the number of traffic signals on existing US 301)
- Provides greatest spacing between signalized intersections on existing US 301
- Reduces total ROW impacts compared to Option 2
- Requires fewer bridge structures than Option 2

#### Disadvantages

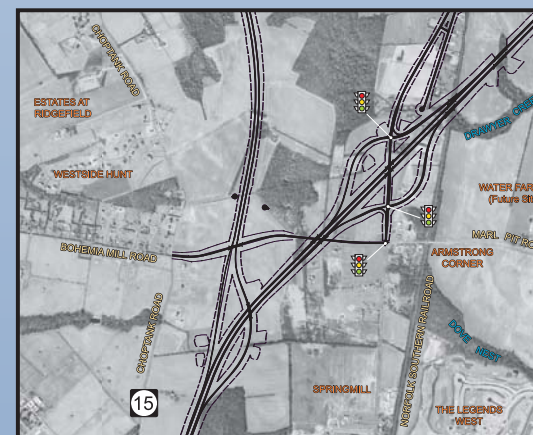
- Requires acquisition of Middletown Baptist Church – impacts both church buildings and parking lot
- Provides ramp spacing between Spur and new US 301/Armstrong Corner Road that barely meets minimum design standards
- Does not provide direct tie between Armstrong Corner Road and Bohemia Mills Road
- Locates new US 301 Interchange on local road (Armstrong Corner) rather than arterial (existing US 301)



### Option 2

#### Description

- Provides diamond interchange between new US 301 and relocated existing US 301



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#### Advantages

- Less wetland impacts than Option 3
- Improves spacing between Spur interchange and new US 301/relocated existing US 301 interchange
- Avoids impacts to Middletown Baptist Church buildings, but impacts a portion of the church parking area
- Provides direct connection between Armstrong Corner Road and Bohemia Mills Road
- Locates new US 301 interchange on arterial (existing US 301) rather than local road (Armstrong Corner Road)

#### Disadvantages

- Results in greater ROW and displacement impacts along existing US 301 than Option 1 (increased costs)
- Increased construction cost due to additional structures and relocation of existing US 301
- Two additional signals on existing US 301 (in addition to proposed signal at Armstrong Corner) – affects traffic operations on US 301
- Leads to less than desirable spacing of signalized intersections on US 301
- Reduces distance between new US 301 and Springmill (from 1300 to 800 feet)

### Option 3

#### Description

- Provides diamond interchange between the new US 301 and Armstrong Corner Road (similar to Option 1), but alignment shifted slightly to southeast to avoid Middletown Baptist Church property



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#### Advantages

- Lower Waters of the US and Species Habitat impacts than Options 1&2
- Lower DNREC Sub-Aqueous Lands impacts than Option 2
- Lower Forest impacts than Options 1&2
- Increases distance from new US 301 to Post and Rail Farms community
- Avoids direct impacts to Middletown Baptist Church property
- Uses proposed signal at Armstrong Corner Road for local access from existing US 301 to new US 301 (minimizes number of signals on existing US 301)
- Increased spacing between signalized intersections on existing US 301
- Reduces acres of property required to 203 acres (214 and 281 acres for Options 1 and 2 respectively)

#### Disadvantages

- Greater wetland impacts than Options 1&2 (9.6 acres verses 6.0 and 7.8 acres for Options 1&2, respectively)
- Impacts previously undisturbed, low quality wetland NW of Springmill
- Reduces distance between new US 301 and Springmill Community to 600 feet (1300 and 800 feet for Options 1&2, respectively)
- Locates new US 301 interchange on local road (Armstrong Corner Road) rather than arterial (existing US 301)
- Reduces distance between new US 301 and the Armstrong Walker House historic site to 500 feet (700 and 1000 feet for Options 1 and 2, respectively)
- Middletown Baptist Church buildings are located 300 feet from new ramp and 550 feet from new US 301 mainline