



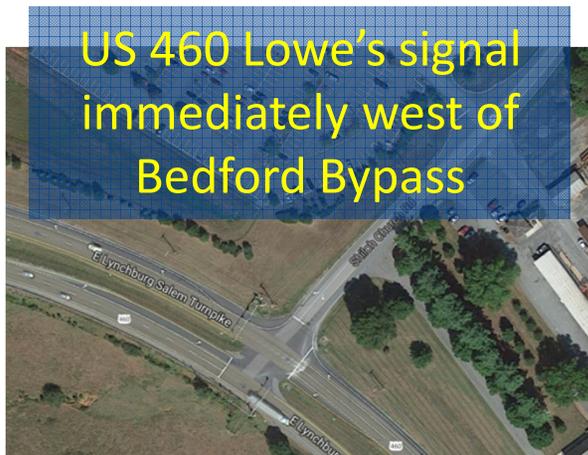
Protecting Virginia's Arterial Investments

CTB Workshop | May 2017

Garrett Moore, P.E. | Chief Engineer

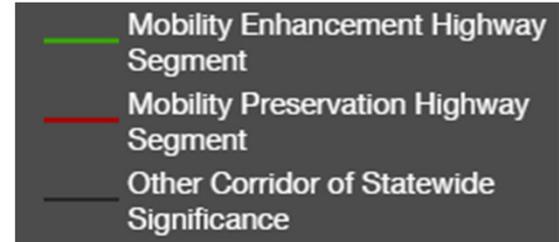
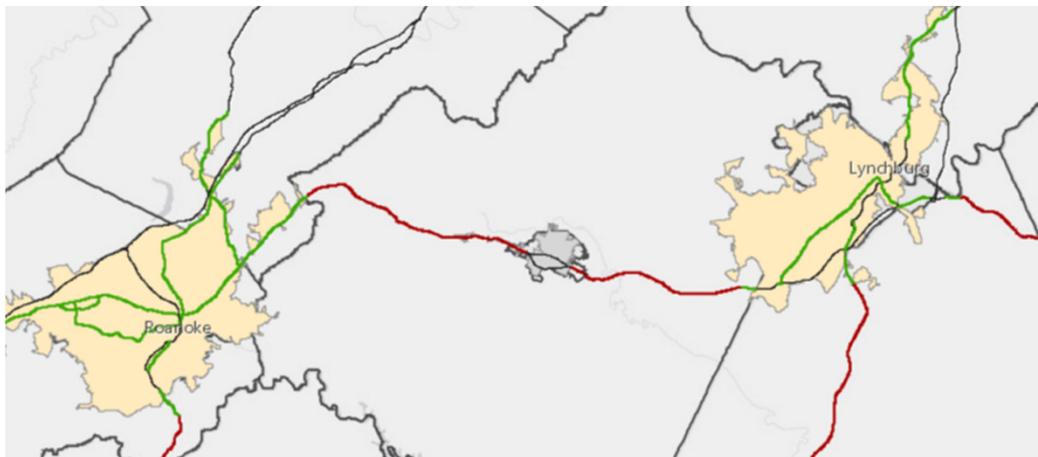
Goals for Critical Arterial Corridors

- **Goal #1** – Discourage signal/access point proliferation on critical arterials of the CoSS
- **Goal #2** – Improve mobility on existing arterials of the CoSS to continue support for economic development



Identifying the Critical Corridors

- **Mobility Preservation Highway Segments (MPHSs)**
 - Critical rural arterials with no parallel Interstate
- **Mobility Enhancement Highway Segments (MEHSs)**
 - Urban arterial segments of CoSS
 - Accessibility to adjacent parcels, transit, and bikes/peds

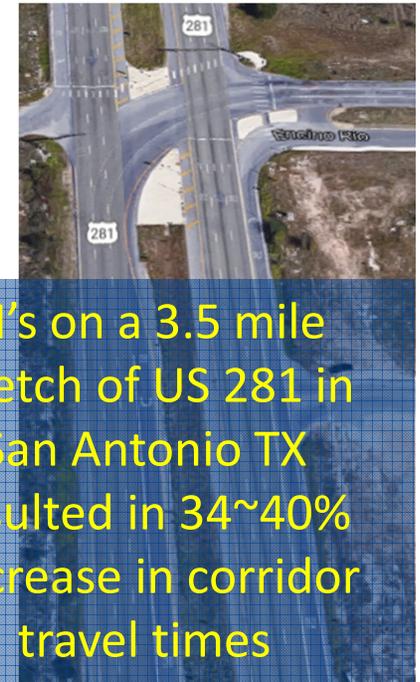


Levels of Authority for Approval

- **Signals**
 - **New signals** on Preservation segments of the CoSS approved by State Traffic Engineer and District Engineer/Administrator
 - **Signal removals** approved by District Traffic Engineer
- **Crossovers**
 - **New crossovers** on highway segments of the CoSS approved by State Location & Design Engineer
 - **Crossover closings** approved by District Engineer/Administrator

Alternative Intersections (AI's)

- **Benefits:**
 - Reduce stops-on-red
 - Potentially significant safety benefits
- **“VDOT Junction Screening Tool” (VJuST)** – new tool that conceptually compares traditional vs. AI concepts



AI's on a 3.5 mile stretch of US 281 in San Antonio TX resulted in 34~40% decrease in corridor travel times

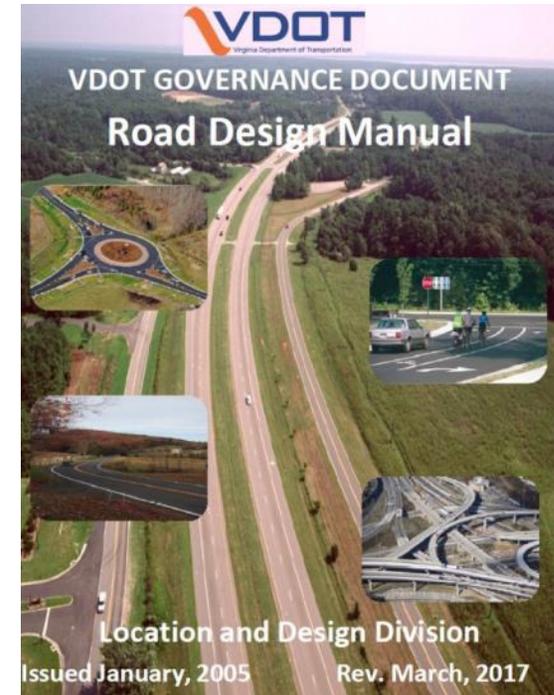


Saluda Food Lion on US 17 – entrances modified in June 2015 to require drivers to make “J-Turns” to enter and exit



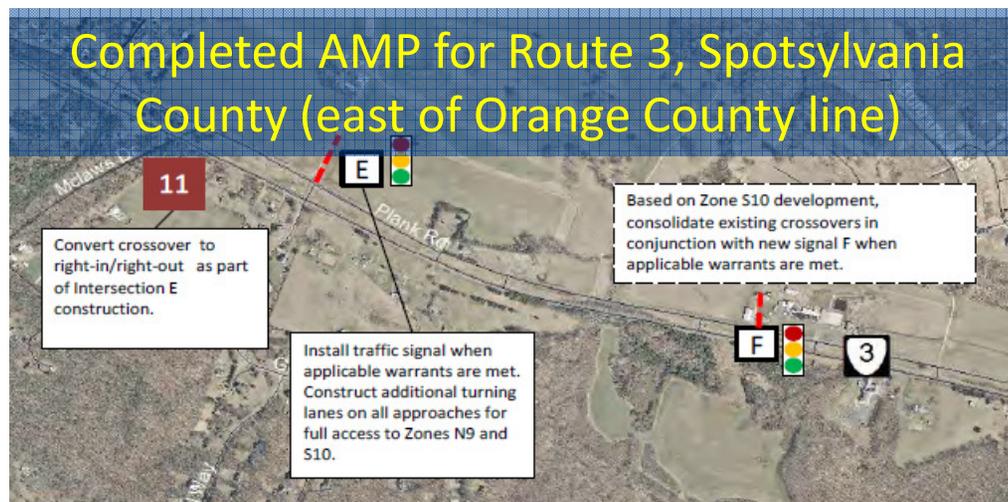
Road Design Manual Revisions

- Revise policies on Traffic Signal and Crossover location approvals
- Require analysis of AI's or grade-separation in lieu of new signals
- Add Alternative Intersection/ Interchange design guidance



Arterial Management Plans (AMPs) for Mobility Preservation Highway Segments

- VDOT has completed 3 AMP's ; 6 more in progress
- Upcoming I&IM will address Corridor Study process
- I&IM will require that signal removal, median crossover closures, and AI's be considered in AMP's
- AMPs will be coordinated with OIPI



Innovative Strategies For Maximizing Traffic Signal Throughput

Strategy	Benefits	In use in VA?
Advanced Signal Control Technologies	<ul style="list-style-type: none"> • Real-time monitoring of quality of operations • Facilitate signal optimization • Minimize stops-on-red • Facilitate cross-jurisdictional signal coordination 	✓
Innovative Vehicle Detection	<ul style="list-style-type: none"> • Delay onset of red when it will help approaching trucks avoid “hard” braking • Delay start of green when a likely red light runner is detected 	✓

Next Steps

- Outreach to developer community
- Implementation of policy revisions (Road Design Manual revisions, new I&IMs, etc.)
- Communications materials educating public on benefits of Alternative Intersections
- Training to internal & external designers