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
Benefits:

- Reduce stops-on-red
- Potentially significant safety benefits

“VDOT Junction Screening Tool” (VJuST) – new tool that conceptually compares traditional vs. AI concepts

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

AI’s on a 3.5 mile stretch of US 281 in San Antonio TX resulted in 34~40% decrease in corridor travel times
Road Design Manual Revisions

- Revise policies on Traffic Signal and Crossover location approvals
- Require analysis of Al’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

Completed AMP for Route 3, Spotsylvania County (east of Orange County line)
Innovative Strategies For Maximizing Traffic Signal Throughput

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Benefits</th>
<th>In use in VA?</th>
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<tbody>
<tr>
<td>Advanced Signal Control Technologies</td>
<td>• Real-time monitoring of quality of operations</td>
<td>✓</td>
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<td></td>
<td>• Facilitate signal optimization</td>
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<td>• Minimize stops-on-red</td>
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<td>• Facilitate cross-jurisdictional signal coordination</td>
<td>✓</td>
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<tr>
<td>Innovative Vehicle Detection</td>
<td>• Delay onset of red when it will help approaching trucks avoid “hard” braking</td>
<td>✓</td>
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<tr>
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<td>• Delay start of green when a likely red light runner is detected</td>
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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