US 1 Innovative Technology Deployment Corridor

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Project Scope

- Upgraded **signal controllers** to support adaptive control and future CV applications
- Arterial **CCTV** to support incident and traffic management
- **Detection** to support arterial travel times
- **DSRC deployment** at intersections for CAV readiness and National SPaT Challenge
- Enhanced high-bandwidth **communication** connectivity to support future needs
- Additional **tools** (arterial DMS, localized RWIS deployment, etc)
14 Smart Signal Corridors

- MD 2 Anne Arundel County – Annapolis – Annapolis Harbor Center to Tarragon Lane
- MD 2 Anne Arundel County – Brooklyn Park – Hammonds Lane to 11th Avenue
- MD 3 Anne Arundel County – Crofton – MD 450 to St. Stephens Church Road
- MD 139 Baltimore County – Towson – Kenilworth Avenue to I-695 Outer Loop Ramp
- US 40 Baltimore County – Catonsville – Coleridge Road to Nuwood Drive
- MD 5 Business Charles County – Waldorf – Post Office Drive to US 301
- MD 228 Charles County – Waldorf – Western Parkway to US 301
- US 301 Charles County to Prince George’s – Waldorf Area – Chadds Ford Drive to MD 227
- US 1 Business Harford County – Belair – Tollgate Road to Atwood Road
- MD 22 Harford County – Aberdeen -Technology Way to North Rogers Street/US 40 Ramp
- **US 1 Howard County – Jessup/Elkridge – Montgomery Road to MD 175**
- US 301 Prince George’s County – Bowie – Excalibur Road to Governor’s Bridge Road
- MD 202 Prince George’s County – Landover – McCormick Drive to Arena Drive
- MD 108 Montgomery County – Olney – MD 182 to Volunteer Drive
US 1 Howard County

- Next generation Econolite Cobalt controllers
- Adaptive control
- High definition data to enable signal performance measures
- Connected Vehicle card to enable future applications
- Enhancements to signal interconnectivity and communications back-haul
Connected Vehicle Readiness

- Co-Locate DSRC at 20 Smart Signal locations
- Broadcast SPaT and MAP messages
- Receive BSM messages
Connected Vehicle Pilot

- Lessons Learned in Technology, Communications, Procurement, and Workforce Development
- National SPaT Challenge
- Future Readiness for Network Architecture
- Partnership Opportunities for CAV Testing in Maryland
Incident Management Enhancements

→ Improve corridor operations - important component of Integrated Corridor Management
→ Frequent spill-over from I-95 and MD 295/BW Parkway during recurring and non-recurring situations
→ Safety needs, truck accidents, rear-end crashes along US 1
→ Freeway-Arterial coordination, TSM&O culture/philosophy
→ Arterial travel time estimates
US 1 ITS Deployment

- Arterial CCTV
- Additional Detection
- Arterial DMS at key decision points
- Enhanced Operational Coordination

Proposed CCTV Coverage (work in progress)
Future Exploration

- Long-Term Telecommunications Needs
- CV Applications Desired, SHA Fleet Vehicle Impacts
- Differences in Planning for CV compared to traditional ITS devices
- Network Management, Configuration, and Maintenance
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QUESTIONS?