



Engaging Maryland toward CAV advancements



**MOTOR VEHICLE
ADMINISTRATION**

Christine Nizer, Administrator
Maryland Department of Transportation
Motor Vehicle Administration



Maryland CAV activities

Overall goal:

Maryland is open for business and seeking to promote innovative safety and economic benefits of CAV technology while ensuring safety for all who travel Maryland roadways

Multi-faceted approach:

- Efforts within MDOT business units
- MDOT strategy and implementation plans
- Maryland Connected & Automated Vehicle Working Group
- Expression of interest and permit process for testing

Maryland CAV Working Group

Formed in late 2015, the Working Group serves as a central point of coordination and information for Maryland CAV activities

- Members from state, local, county, private, technology, academic sectors
- Twelve meetings since December 2015
- Presentation highlights
 - Research nationally and in Maryland
 - Federal policies and guidance documents
 - AAMVA guidelines and initiatives
 - Specific topics like law enforcement and insurance
 - Live demonstrations of CAV technology



MDOT business units – CV focus

Maryland State Highway Administration US 1 corridor initiative

- 8 mile corridor of US 1 (4-lane arterial) with 2 mile cross of MD 175 (2-lane)
 - Arterial CCTV to support incident and traffic management
 - Detection to support arterial travel times
 - Upgraded signal controllers to support better timing and future CV applications
 - DSRC deployment at intersections in support of National Signal Phasing and Timing (SPaT) Challenge
 - Enhanced high-bandwidth communication connectivity to support future needs
- Currently in design phase; full deployment by summer 2019

MDOT business units – CV focus

MDOT SHA is part of two FHWA research pooled funds

- Study #TPF-5(371), Highway Capacity Manual adjustments
 - Identify adjustments for highway capacity based on CAV market penetration
 - Recognition that Connected & Autonomous together can make more significant impact to highway capacity than separately
 - Led by Oregon ... nine states involved including CT and MD
- Study #TPF-5(206), Vehicle Infrastructure Integration
 - Supports large-scale Connected Transportation Systems with AASHTO and US DOT
 - Researches state and regional connected system efforts
 - Led by Virginia ... 23 agencies, including CT, DE, MD, NJ, NY, PA

CV activities elsewhere in MDOT

Maryland Transportation Authority

- DSRC test installation at tunnels
- Demonstrations planned at 2018 IBTTA conference
- Facilitated Collaboration with US Army Aberdeen Test Center



Maryland Transit Administration

- Piloted advanced Driver Assistance System on core service buses
- Traffic signal and communication hardware implementation (with city of Baltimore) for enhanced transit operations





Other MDOT business units

Maryland Aviation Administration

- Testing self-parking vehicles in BWI Airport lots



Maryland Motor Vehicle Administration

- Leading CAV Working Group & subcommittees
- Leading EOI and permit process
- Organizing MDOT coordination meetings



Maryland Ports Authority

- Participating in freight subgroup
- Examining autonomous vessels



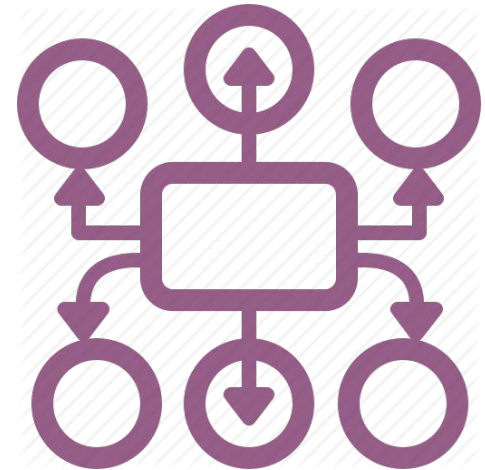
MDOT Secretary's Office

Developing Maryland Strategic Plan and MDOT Implementation Plan

- Support Maryland to become a national leader in CAV
- Align ongoing CAV planning and implementation efforts
- Identify opportunities for coordination across agencies
- Identify gaps in CAV policy and planning
- Help set a course of implementation

Progress

- Completed interviews with all business units
- Held two webinars to gain external input



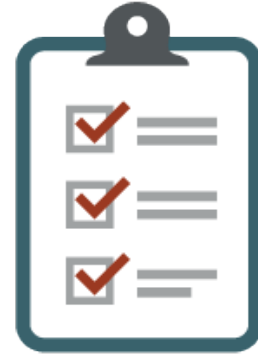
Maryland EOI & Permit process

Expression of Interest

- Starting point to alert all appropriate agencies of potential activity
- Facilitates dialogue with potential partners
- Eleven entities have submitted EOIs to Maryland
- May be AV or CV proposals

Highly Automated Vehicle permit

- Required to test on public roadway
- \$5 million insurance requirement
- Self-certification and reporting requirements for vehicle, operators and plans
- Unique permit for each vehicle
- One entity has been issued two separate vehicle permits and is actively testing



Maryland EOI & Permit process

Locations to Enable Testing Sites (LETS CAV)

- MDOT business units have collaborated to identify facilities that could be used for CAV testing, including parking lots and park & rides
- Provides a first step in matching testers with potential sites



Maryland Locations to Enable Testing Sites (LETS) for CAV

Interactive Map

Explore locations throughout Maryland offering unique and innovative testing opportunities for CAV technology.

Launch

Lessons learned

- Collaboration is key ... no single agency, organization or entity has all the answers
- Every document is a “living” document
- CAV needs to be integrated into long-range planning
- Technology capabilities are just one element; user acceptance and integration into transportation culture will be key for CAV development

More information

mdot.maryland.gov/marylandcav

Chrissy Nizer, cnizer@mdot.state.md.us

Northeast Association of State Transportation
Officials <http://nasto.org/2018-nasto-conference/>

July 9th -11th, National Harbor

