# MARYLAND CAV STRATEGIC FRAMEWORK

Chrissy Nizer, MDOT MVA

### MARYLAND'S CAV VISION

Uphold & enhance a Safe, Efficient, and **Equitable** transportation future by delivering collaborative and leading-edge CAV solutions. Maryland is open for business and eager to realize the life-saving and economic benefits of CAV technology, while ensuring safety for all. We are embracing CAV technology and innovation through **continuing collaboration** with partners interested in researching testing, and implementing CAVs in MD.



and open for business.

## MARYLAND'S CAV MILESTONES

### 2015 Foundations

 Statewide CAV Working Group Formed

### 2016 Early Efforts

 Stakeholder engagement across Maryland and at federal level begins

### 2017 Permits & Pilots

- Permit process established
  - 1st company pilots CAV technology
- CAV strategic plans start forming within MDOT business units

### 2018 Expansion

- Maryland CAV
   Vision finalized
- CV technology pilots underway
- 2<sup>nd</sup> company pilots CAV technology

### 2019 Stronger

- MDOT receives two grants to advance CAV pilot programs
- Agencies consider workforce impacts

### 2020 Full Steam Ahead

- BWI Thurgood
   Marshall Airport
   considers CAV
   parking technology
   as a service for
   customers
- CAV Strategic Framework (this document!)

### FRAMEWORK DEVELOPMENT

#### September 2020

- Public Survey (600+ responses)
- 1:1 Interviews with various agencies (10+)

#### October 2020

 2-week public comment period on Draft Framework (150+ comments)

#### November 2020

Governor's Office Review

#### December 2020

Release of the Maryland CAV Strategic Framework (today!)

Maryland has the expertise, infrastructure and leadership to be a national leader in CAV technology and implementation."

Maryland should be a leader in the deployment of CAV technologies."

I believe this is the future and I would love to see Maryland get out in front of this technology."

### PUBLIC RESPONSE





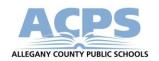




























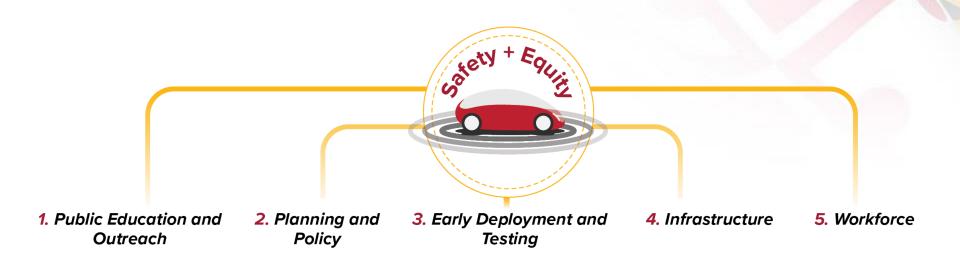








## FRAMEWORK AT A GLANCE



## PAST ACCOMPLISHMENTS: PUBLIC EDUCATION & OUTREACH

- Working Group and subgroup meetings on a recurring basis to provide a central point of coordination of CAV info in Maryland.
- Development of an Expressions of Interest process to attract companies to Maryland and provide a one-stop shop for coordination with all appropriate agencies.
- Public events with private companies (e.g. STEER and Olli demos).
- Created and distributed CAV Flyers for outreach to businesses and the public – through the help of the CAV WG.

## FUTURE GOALS: PUBLIC EDUCATION & OUTREACH

- Broaden educational CAV material and increase knowledge of ongoing efforts.
- Ensure diverse audience when communicating initiatives.
- Leverage existing outreach avenues.



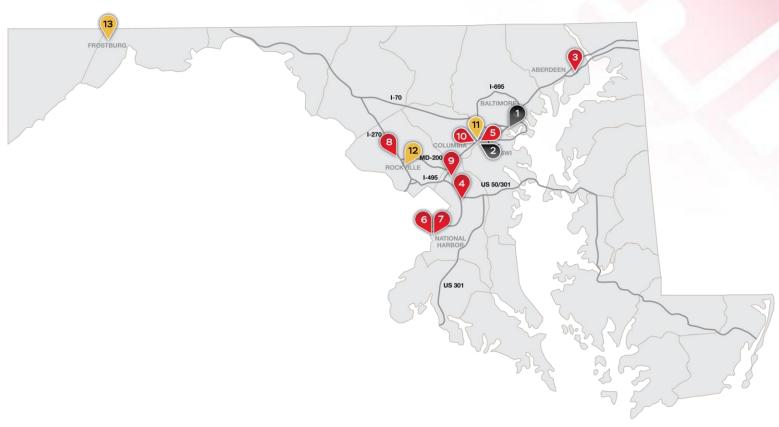
## PAST ACCOMPLISHMENTS: PLANNING & POLICY

- Agency level CAV Strategic Plans.
- Development of Highly Automated Vehicle permit process through CAV Policy Subgroup and input from the full CAV WG.
- Federal grant applications for CAV solutions including Accelerated Innovation Deployment and Inclusive Design Challenge.
- 2021-2025 Strategic Highway Safety Plan includes CAV-specific technology recommendations across all Emphasis Areas.
- Local jurisdictions survey on needs relating to emerging technologies (<u>Link</u>).
- Maryland CAV Strategic Framework.

## FUTURE GOALS: PLANNING & POLICY

- Facilitate opportunities through the Maryland CAV Working Group.
- Establish clear goals and metrics for CAV in Maryland.
- Identify and address barriers to CAV.
- Incorporate CAV into planning and policy documents.
- Establish policies on cross-collaboration and open data sharing.
- Anonymize CAV data and safeguard from mishandling.

## PAST ACCOMPLISHMENTS: EARLY DEPLOYMENT & TESTING



## FUTURE GOALS: EARLY DEPLOYMENT & TESTING

- Broaden use cases for early deployment and pilot projects.
- Gather public perception and adjust pilots.
- Grow the list of locations for CAV testing.
- Prioritize freight-focused CAV strategies in the short term.
- Leverage deep bench of academic excellence.
- Embrace new partnerships for non-traditional research.

## PAST ACCOMPLISHMENTS: INFRASTRUCTURE

- Prince George's County DPW&T, National Harbor and private CAV developer deployment partnership.
- SPaT & US 1 technology corridor in Howard County (ongoing).
- Infrastructure to Vehicle project kicked-off for detection/warning of vulnerable roadway user in crosswalk (ongoing).
- CV deployment pilot in the vicinity of the I-95 and I-895 tunnels.

## FUTURE GOALS: INFRASTRUCTURE

- Establish baseline operation of technology infrastructure.
- Establish acceptable equipment downtimes.
- Remain engaged with national guidelines and integrate or create State-specific specifications.
- Dedicate resources and create partnerships to build out the communications infrastructure.
- Asset-management and software configuration management.

## PAST ACCOMPLISHMENTS: WORKFORCE

- Western Maryland Workforce Center concept (Frostburg).
- Work Group to Study Advanced Technology Center in Western Maryland actively pursuing a workforce training center (ongoing).
- University of Maryland, College Park, is planning for a new state-ofthe-art CAV lab for training and education (ongoing).
- Educational STEM workshops.
- Development of an AASHTO student CAV Module for national use.

## FUTURE GOALS: WORKFORCE

- Promote and enhance existing workforce.
- Address recruitment & retention gaps at the local level.
- Establish expectations for future staffing.
- Field training and traditional trade jobs should be encouraged.



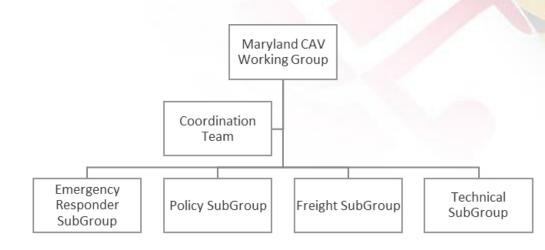
### NEXT STEPS: GROUPS AND SUBGROUPS

#### Coordination Team

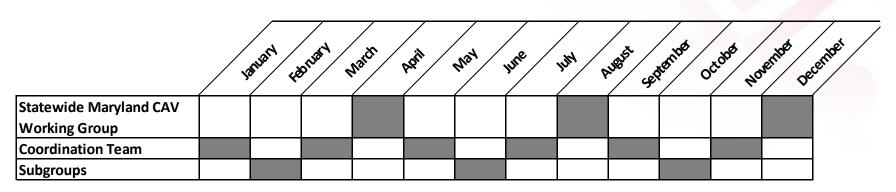
 Nanette Schieke <u>nschieke@mdot.maryland.gov</u>

### SubGroups

- Freight: Parto Mazdeyasni pmazdeyasni@marylandports.com
- Policy: Nanette Schieke <u>nschieke@mdot.maryland.gov</u>
- Technical: Ross Turlington
   <u>rturlington@mdot.Maryland.gov</u>
- Emergency Responder: Roxane Mukai <u>rmukai@mdta.state.md.us</u>
- Questions/Ideas always welcome <u>CAVMaryland@mdot.maryland.gov</u>



## NEXT STEPS: 2021 SCHEDULE



Dates subject to change. Reach out to Coordinators for latest updates.

## CLOSING THOUGHTS

The Maryland CAV Strategic Framework is **a call to action** for all to:

- champion the development of implementation plans that align with the Maryland CAV Strategic Framework.
- collaborate through the Maryland CAV Working Group.





### **Questions?**

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