

Date / Time / Location	W 12-Feb-2020 / 13:00-15:30 / PennDOT Keystone Building, 8 th Floor Board Room (8N1)
Attending/ Representing	HAV Advisory Committee: Meredith Biggica (MB), Robert Evanchick (RE), Thomas Foley (TF), Jason Gerard (JG), Yassmin, Gramian (YG), Gerardo Interiano (GI), Erik Johanson (EJ), Noah Karn (NK), Ted Leonard (TL), Jennifer Liptak (JL), Shannen Logue (SL), Samuel Mclaughlin (SM), Michael Pack (MP), Alison Pascale (AP), Nolan Ritchie (NR), Matt Rucci (MR), Frank Snyder (FS), Alex Swan (AS), Kelley Yemen (KY)
	Additional Attendees: Rick Allen (RA), Roger Cohen (RC), Mark Kopko (MK), David Lapadat (DL), Kurt Myers (KM), Ngani Ndimbie (NN), Jason Sharp (JS), Kara Templeton (KaT), Kevin Tobias (KeT), Erin Waters-Trassatt (EWT)
	PennDOT Consultant Team: Jeff Bergsten (JB), Scott Seibel (SS)

Key Points and Decisions:	Action Items:
<p>1. Review of Last Meeting</p> <ul style="list-style-type: none"> a. Vision, Mission, and Goals <ul style="list-style-type: none"> i. No comments were provided from the committee regarding the Vision, Mission, or Goals ii. The Vision, Mission, and Goals can be updated in the future if the Committee wishes to do so. b. December Meeting Minutes Review <ul style="list-style-type: none"> i. Frank Snyder noted his attendance was incorrect in meeting minutes. ii. The minutes will be updated and finalized as there were no additional comments. c. Year 1 Focus Areas <ul style="list-style-type: none"> i. Communication and engagement plan ii. Workforce development iii. Assessment of PA vehicle code 	<ul style="list-style-type: none"> ➤ Distribute meeting minutes within 5 working days.
<p>2. Proposed Statewide Communications and Engagement Plan (MK)</p> <ul style="list-style-type: none"> a. It was proposed that the initial focus area of the 3 Year 1 Focus Areas should be the communication and engagement plan. The reasoning for this is in order to achieve success with the other 2 focus areas, a foundation of communication and engagement is required. b. A draft communications and engagement plan structure was presented and discussed (see attached). c. Surveys <ul style="list-style-type: none"> i. It is proposed to work through the AV Taskforce and stakeholders (AARP, AAA, SAE, etc.) to create a PA specific AV public surveys. ii. To be compared against existing regional and national surveys. iii. Statewide survey <ul style="list-style-type: none"> 1. Purpose: Identify how PA compares to the nation and a high-level understanding of general thoughts regarding AVs in the Commonwealth. 2. Survey the following information: <ul style="list-style-type: none"> a. How knowledgeable is the public regarding AVs? b. What general assumptions does the public have (capabilities, timetable, adoption)? 	<ul style="list-style-type: none"> ➤ Work with the PA AV Task Force and the identified stakeholders to conduct public opinion surveys. ➤ Conduct preliminary research to determine what engagement efforts are already underway (so that effort is not duplicated). ➤ Complete the next steps identified

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<ul style="list-style-type: none"> c. What is the comfort level of AVs? d. Obtain general demographic information, which would allow the ability to compare results in urban, suburban, and rural areas of the Commonwealth. iv. Local gov't survey <ul style="list-style-type: none"> 1. Purpose: Identify emerging technology interest at a local level. 2. Survey the following information: <ul style="list-style-type: none"> a. What type of work are they doing? b. Are they incorporating emerging technology into their long-range plans? c. Are they sharing information with their communities? d. Engagement <ul style="list-style-type: none"> i. The objective is to set forth a reasonable understanding of assumptions, policy, and decisions. ii. It is important to not recreate the wheel and to leverage organizations and partners who are already engaging the public. PennDOT has been in coordination with PAVE. iii. Engagement will set the foundation for the workforce development plan. iv. Types of engagement <ul style="list-style-type: none"> 1. Print 2. Digital 3. Events <ul style="list-style-type: none"> a. PA AV Summit b. AV petting zoo c. Demonstrations in the Commonwealth (SAE) d. Support events held by municipalities e. Next steps <ul style="list-style-type: none"> i. Further define outreach plan ii. Consider adding rural and low income to General Public subgroups iii. Obtain approval from Governor's Communication Office iv. Bring in partners to assist with the Plan v. Follow up with the Advisory Committee to align expectations 	<p>under Section 2.e. in the Summary.</p>
<ul style="list-style-type: none"> 3. Workforce Development Plan (MK) <ul style="list-style-type: none"> a. The Committee agreed that the two workforce categories to focus on first are automotive technicians and truck drivers. <ul style="list-style-type: none"> i. Automotive technicians <ul style="list-style-type: none"> 1. Support local shops that can run diagnostics but cannot service repairs/maintenance to higher-level AVs and increased electrification. ii. Truck drivers <ul style="list-style-type: none"> 1. Currently there is a driver shortfall in the trucking industry. One of several reasons for this is wage stagnation over the last 2 decades. 2. The trucking industry has a major economic impact on the Commonwealth (Keystone State) 	<ul style="list-style-type: none"> ➤ Conduct a literature review of existing national activities. ➤ Begin coordination with other agencies to refine the scope of the initiative.

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<ul style="list-style-type: none"> 3. More training is required. 4. Different business models may be created. AVs could address long-haul trucking which would allow drivers to remain local. b. Other new jobs <ul style="list-style-type: none"> i. AV industry will develop a need for new jobs and thus there will be opportunities for training to fill those positions. <ul style="list-style-type: none"> 1. Routine maintenance and cleaning of AVs 2. Specialized repair and maintenance of AVs ii. Since all long haul traffic to/from the Northeast funnels through Pennsylvania, we have a unique opportunity to be a major east coast hub for these new jobs. c. Electrification of Vehicles <ul style="list-style-type: none"> i. The electrification of vehicles is moving quickly and with great force. ii. Some states and cities are mandating electric transition by a certain date, whereas AVs are for the most part still undergoing testing. iii. Transit Agencies are very interested in the transition to EVs and the development of associated charging infrastructure. iv. While this Committee's focus is on AVs, it will be helpful to advocate for EV initiatives. 	
<ul style="list-style-type: none"> 4. Proposed Vehicle Code Assessment (JS) <ul style="list-style-type: none"> a. A preliminary legal assessment of the PA Vehicle Code determined that a legislative change is required to accommodate Level 5 AVs (full deployment). b. The following elements need to be reviewed and modified: <ul style="list-style-type: none"> i. Vehicle and driver licensing credential verification ii. Law enforcement iii. Financial implications c. Two major questions were posed to the committee to be addressed by the PA AV Task Force and legal team. <ul style="list-style-type: none"> i. Should vast changes be made to the vehicle code, or possibly an overlay? How to differentiate between Level 3 and 5? ii. Should PennDOT move forward and review under the eyes of deployment only or create two separate vehicle code reviews: one for testing and a separate one for deployment? d. Committee feedback on making updates to the vehicle code: <ul style="list-style-type: none"> i. Law enforcement and liability will have significant structural changes depending on SAE Vehicle Levels 3 versus 5. ii. The vehicle code needs to be updated in general, but that effort could stifle/delay the Committee's mission. iii. States that changed their laws to better suit AVs could be used as an example/lessons learned. iv. Act 117 created chapter 85, which should be considered for our use to provide an "overlay" to the vehicle code that focuses solely on AVs. v. The proposed Code needs to allow for automated shuttles and shared mobility. 	<ul style="list-style-type: none"> ➤ Create scope of work based on feedback from the committee. ➤ Distribute legal questions from (JS) to the Committee for feedback. ➤ Review/revise internal grant programs to allow for advanced technology applications.

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<ul style="list-style-type: none"> vi. MK indicated that one Green Light Go projects is looking to include advanced signal technology. vii. The initial AV guidance approach was on a testing program, but the vehicle code updates need to focus on full deployment. viii. The survey results will shift how the general assembly will think. ix. If a tester is looking to test level 5, they should be directed to a testing facility (i.e. PennSTART). 	
<p>5. AV Testing Guidance 2.0 (MK)</p> <ul style="list-style-type: none"> a. Upon committee review, the following changes will be made to the document: <ul style="list-style-type: none"> i. Reference vehicle code sections where applicable ii. Add footnote to reference NHTSA Report where applicable iii. 2.g.ii – Change reference iv. 4.e. – Add “Or a brief survey overview” to clarify that personal information is not being shared. v. Data Reporting – Possibly change language to “Active and Inactive Work Zones” vi. Crash Reporting – Add language to clarify “Crash Reporting” only for reportable crashes, not fender-benders. b. PennDOT currently has 7 authorized testers, with 2 more in the pipeline. <ul style="list-style-type: none"> i. Testing in rural counties is predominately on interstates ii. Testing in Urban and Suburban counties occur on different roadway classifications. c. Path to deployment <ul style="list-style-type: none"> i. Guidance is not legal authority, it is voluntary. ii. Once testers reach deployment, accessibility standards will be required by other laws. d. Guidance provides the ability to request the temporary restricting of testing. The guidance will be updated based on the abilities of the testers. If tester plans change, they would submit an updated notice of testing. e. It was intentional to restrict testing in inactive work zones (in addition to active work zones) since they are still different traffic patterns than what is expected under normal circumstances. f. From an insurance perspective, it would be beneficial to know when any crash occurs, including non-reportable crashes. Their concern isn't just collisions, it is also software malfunctions. g. It was noted that California requires disengagement reports. 	<ul style="list-style-type: none"> ➤ Committee Members – provide comments on AV Testing Guidance 2.0. ➤ Update Testing Guidance based on Committee discussion (Section 5.a.) ➤ (NK) – provide insurance industry's desires for non-reportable crash data.
<p>6. Open Discussion</p> <ul style="list-style-type: none"> a. (NR) Research Proposal for a Public Transportation Platoon <ul style="list-style-type: none"> i. See attached proposal briefing. ii. Objective: Following the approval of the HAV Advisory Committee, the Automated Vehicle Policy Task Force shall be tasked with developing a white paper on the feasibility of implementing a public transportation platoon as an alternative to increasing passenger rail service in Western Pennsylvania. 	<ul style="list-style-type: none"> ➤ Committee Members – Send Headshots to Mark Kopko to be included in the annual report. ➤ PA AV Task Force – Create a high-

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<ul style="list-style-type: none"> iii. The intent is to complement any efforts currently being conducted by PennDOT. iv. Passenger rail service to/from Western PA has been studied multiple times in the past and the solutions were costly. However, the need for more intercity passenger service still exists. v. There was consensus that the Committee is supportive of this Study and that conducting a Pilot might be an appropriate part of the approach. b. (RC) PA AV Summit <ul style="list-style-type: none"> i. Planning for the 4th PA AV Summit is underway. ii. Dates will be Oct 26-28 in Pittsburgh. iii. Call for abstracts are being accepted. The committee is invited to initiate a proposal for the program. 	<p>level scope of work and identify champions for the Platoon research proposal.</p>