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TECHNICAL MEMORANDUM

TxDOT IAC – Technical Support to the CAV Task Force

DATE: November 24, 2020

TO: Zeke Reyna, TxDOT
 Strategic Research Analyst, CAV

COPY TO: TTI_Reports@tti.tamu.edu
 Tim Hein, Research Development Office, TTI
 Ed Seymour, Executive Associate Agency Director, TTI
 Robert Brydia, Senior Research Scientist, TTI

FROM: Beverly Kuhn Research Supervisor
 Senior Research Engineer Texas A&M Transportation Institute

RE: Safety, Liability, and Responsibility Subcommittee
 November 16, 2020 Meeting Notes

Attendees:

Alison Pascale	Audi
Andrea Gold	Texas Innovation Alliance
Andrew Smart	Andrew Smart Consulting
Anne O’Ryan	AAA Texas
Beverly Kuhn	Texas A&M Transportation Institute
Beverly West	TxDOT Strategic Planning Division
Brad Schlueter	USAA
Charlie Leal	Governor’s Office
Chase Williams	Stantec
Daniel Goff	Kodiak
Darran Anderson	Texas Department of Transportation
George Villareal	TxDOT Traffic Safety Division
Gerardo Interiano	Aurora
Hannah Barron	Austin Transportation Smart Mobility
Jackie Erikson	Edge Case Research, Inc.
Jason JonMichael	City of Austin

Jeff	Autonomy Institute
Jeff Peterson	First Transit
Jordan (Alex) Payson	Austin Transportation Smart Mobility
Julia Monso	Cintra
Julian Gomez	Julian C. Gomez Law Firm
Kathleen Baireuther	Ford
Krishna Satti	Michael Baker International
Kristie Chin	Texas Innovation Alliance
Leighton Yates	Alliance for Automotive Innovation
Mark Worman	Texas Department of Insurance
Michael Moore	UT Transportation Research
Rachelle Celebrezze	Cruise
Robert Brydia	Texas A&M Transportation Institute
Sam Dreiman	Argo AI
Steven Rundell	Texas Department of Public Safety
Tony Reinhart	Ford Motor Company
Zeke Reyna	Texas Department of Public Safety

I. Opening Comments – Zeke Reyna, TxDOT

- Welcome to the Safety Subcommittee
- Looking forward to reviewing our very “close to” final draft of the white paper today
- We will proceed with Mural Board discussion as we have in the past

II. Chair Welcoming Statements – Steven Rundell, Texas DPS / Michael Walton, The University of Texas at Austin

- Welcome to members, appreciate writers and all those who prepared for this gathering

III. Review of White Paper Progress and Next Steps

- Initial Meeting
- Topic Discussion
- Voted on topics
- Developed an Outline
- Received Feedback on Outline
- White Paper
- Review: we are at this stage in the process
 - We have reviewed the input from last meeting and are eager to finalize the edits.
 - Once the white paper is prepared, it will be presented to the Full Task Force on December 3rd
 - Elements of this are likely to be put on website.
 - The Executive Summary will be incorporated in the Annual Report for this year
 - Grateful for all the comments sent in thus far and we will accept comments/input on this for the next 24 hours
- Opportunities

IV. Revised White Paper Final Draft – Facilitated Discussion

- List of Figures

- Acknowledgments
- Disclaimer
- Texas CAV Task Force Charter
- Terminology Note
 - Update note to tweak definitions: automated vehicle / fully autonomous vehicle / driver assist / self-driving; clean up the content (align to SAE definitions)
 - SAE has made 3016 is public; link in chat
 - https://www.sae.org/standards/content/j3016_201401/
 - need to clearly distinguish between connected vehicles and autonomous vehicles
- List of Terms and Acronyms
- Executive Summary
 - Duplication of content in the executive summary and the conclusions.
 - Seem to be more conclusions in Executive Summary than in Conclusion section at end of document.
 - Executive Summary to be a standalone document (in case it's all someone reads)
 - Helpful to have a broad summary that states where federal guidelines and regulations. Put them to the top and the detail in the remainder of the document.
 - The term "safety case database" doesn't have a standard definition / bullet seems vague
 - 3rd paragraph (with bullets) in Executive Summary – consider striking
 - Concern over use of term “safety case database” and not content
 - Paper speaks for itself regarding these bulleted issues
 - There is a definition for safety case that is recognized by the industry and can be offered up with industry support
 - international standards bodies will drive the overall momentum
 - task force focusing on policies
 - be respectful of private-sector partners
 - testing vs. deployment
 - Option to have bullet read that there will be further analysis or further study of safety standards
 - Suggested change from "safety cases" to "safety policies?"
 - Is there a way to address the vernacular around safety case database for moving forward?
 - Concern with safety metrics reference; not specifically answered later in the paper, though safety standards is discussed
 - Would be nice to have some other updates with regard to 21448 – should be a published standard in 2021; Other organizations are updating standards rapidly
 - Focus on what is important for Texas as well as where Texas fits into discussion nationally and globally – show readers where information can be found so they can engage
 - AV safety and validation metrics?
 - Needs to be consistency between the executive summary and the full document
- Introduction
- State of the Practice: Safety Standards and Policies

- PA updated guidance this year and there is 2020 guidance; recommend that the information is up to date and not just referencing the 2018 guidance
- in CA: characterization of the various disengagement reports doesn't necessarily mean that the vehicle would have performed differently than a driver; all that is known is that the system was disengaged (not that there was an issue with the vehicle); does not describe the context of the disengagement and why it occurred (p. 7 last sentence right before Nevada)
 - Texas would want to review this as a metric
 - Tracking/measuring; disengagement is a catalyst for addressing other issues/occurrences
 - add a sentence: the industry has noted that this metric can be ambiguous and incentivize riskier behavior; some distinguish between planned and unplanned (disengagements potentially counter-productive metric)
- Regarding international standards: look at international deployments (Singapore and UK); different scenarios in terms of what is going in (Singapore - simulation)
- UL is an ANSI standard and not an international standard; could be noted as standards bodies organizations rather than international organizations (different header) (see comments submitted)
 - Consider “Standards, Bodies, Organizations”
 - Also include private companies (break down into 2 headings); add blurb about how much activity is going on in this space and the different organizations and stakeholders are involved
 - June 2020 - UL and SAE are in discussions regarding the AV trucking standard
- Expect that there will be ongoing and future discussions; no single standard at this time
- Reporting Crash Factors
- Opportunities
 - Public information campaign; need to start in a crawl / walk / run approach to educate the public
 - start with ADAS
 - passive safety / active safety / full automation
- References

V. Closing Remarks – Steven Rundell / Michael Walton / Zeke Reyna

- Thanks for your time and efforts in preparation and contribution
- If anyone has additional comments regarding current content, send via email by Tuesday at 5PM (close of business tomorrow)
- As we look forward to the next revision, will be in touch with committee members via email with a poll to canvas the votes.