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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: Freight and Delivery Subcommittee
 November 19, 2020 Meeting Notes

Attendees:

Aidan Ali-Sullivan	Nuro
Andrea Chavez	Grace & McEwan Consulting, LLC
Andrea Gold	University of Texas Center for Transportation Research
Ashley Myers	Grace & McEwan
Beverly West	TxDOT Strategic Planning Division
Brian Moen	City of Frisco
Caroline Mays	Texas Department of Transportation
Chelsey Tanaka	Ike Robotics
Daniel Goff	Kodiak Robotics
Darran Anderson	TxDOT
David Ruth	Motogo, LLC
Debra Richmond	Permian Strategic Partnership
Dr. Michael Walton	University of Texas Center for Transportation Research

Ed Seymour	Texas A&M Transportation Institute
Hannah Barron	Austin Transportation
Jason JonMichael	City of Austin
Jeff Dailey	Central Texas Regional Mobility Authority
Katie Herbek	Ford
Kristie Chin	Texas Innovative Alliance
Laura Weis	Michael Baker International
Melissa Froelich	Aurora
Monika Darwish	Embark
Morgan Avera	UT CTR
Paul Avery	AECOM
Phillip Kampshoff	McKinsey
Robert Brydia	Texas A&M Transportation Institute
Steven Smith	McKinsey & Company
Thomas Bamonte	North Central Texas Council of Governments
Victor Delagarza	AECOM
Zeke Reyna	TxDOT

I. Opening Comments – Zeke Reyna / Daniel Goff / Michael Walton

- Welcome to the Freight 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 Statement – Daniel Goff, Kodiak / Michael Walton, University of Texas Center for Transportation Research

- We are very pleased to have the opportunity to review and share in the current state of the draft and look forward to today where we can add to it as well
- Thank you to everyone for hard work on this, especially to the writing and editing team.
- For the sake of this hour being productive, let’s keep comments to substantive topic that need discussion

III. Review of White Paper Progress and Next Steps

- Initial Meeting
- Topic Discussion
- Voted 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

- Overall paper
 - Paper needs to be updated for FCC action regarding DSRC and C-V2X
- List of Figures
- Acknowledgements
- Disclaimer
- Texas CAV Task Force Charter
- Terminology Note
 - Will be revised to SAE terminology.
- List of Terms and Acronyms
- Executive Summary
 - Reference to safety case database is not clear. Better left unsaid. (Safety WP note)
 - PA guidance should be updated to 2020. (Safety WP note)
- Introduction
 - PDD devices. Operating speed limit is 10 on ped area and 20 on the side of the roadway.
 - Page 7. Add 20 mph. currently only calls out 10
- Long-Haul
 - Work zones: concerns over first sentence. Less about reaction times and more about navigating unpredictable environments.
- Warehouses, Distribution Centers, and Intermodal Facilities
- Last-Mile Delivery
 - Page 17: infrastructure close-up: doesn't have to be a designated lane.
 - Business models: middle mile is referred to as inclusive but may not be as defined. make broader language.
 - Add "somes" and "manys"
 - Companies are developing business models to fit the infrastructure we have now.
 - As vehicles develop, we're likely to see significant infrastructure changes for the future and something for TxDOT to think about.
 - Look at adding "when warranted"

- Conflicts between PDDs and Pedestrians. acknowledge importance of sidewalks as part of our transportation infrastructure
- The middle mile reference also appears in the automated trucks subsection, long haul c/o, infrastructure close up, and transfer hubs.
- A Changing Workforce
 - Text implies that 11-hour service is recent. What's recent is electronic logging.
- Connected Freight
 - CV stated to require OBU and RSU deployment. Lots of connected vehicle work that can be done without that.
 - 4G LTE
 - Other sources of connected data
 - Mildly embedded devices
 - Apps
 - Another issue (sorry): Do we want to emphasize the importance of up-to-date intersection control technology to support things like (a) freight vehicle signal priority and (b) the ability of PDDs to trigger pedestrian walk calls in order to cross safely?
- Opportunities (*add section to mirror other white papers*)
 - Should there be a recommendation for a digital record of road rules (aka base map) (speed limits, signs, etc.)
 - More data is better, but companies can't rely on a singular resource. Vehicles have to adapt to the environment.
 - Consider amendments to highway design to transfer points?
 - There is no consensus industry call for a digital map.
 - Sidewalk note: Widening for bots also improves ped and geometrics
 - Is there a recommendation to be made for a "slow lane"?
 - Less of segregation and more about traveling on roads with different speed limits
 - There exists a near-term challenge and opportunity to address PDD operations in a cooperative format with traffic signal control.
- References

V. Closing Remarks – Daniel Goff / Michael Walton / Zeke Reyna

- Thanks to writers and facilitating team of these meetings
- Finishing this call within an hours is a great testament to the work we've done
- If anyone has additional comments regarding current content, send via email by Friday 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.