



January 31, 2020

Submitted via Regulations.gov

Mr. Finch Fulton
Deputy Assistant Secretary for Transportation Policy
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590

Re: Comments Concerning Request for Information for the Inclusive Design Challenge, Docket Number: DOT-OST-2019-0187

The Consortium for Citizens with Disabilities (CCD) Transportation Task Force Co-Chairs are pleased to submit comments in response to the request for information for the Inclusive Design Challenge. CCD is the largest coalition of national organizations working together to advocate for Federal public policy that ensures the self-determination, independence, empowerment, integration and inclusion of children and adults with disabilities in all aspects of society.

The CCD Transportation Task Force Co-Chairs recognize and appreciate Secretary Chao's stated commitment to ensuring improved mobility for disabled travelers. Inaccessible transportation remains a barrier and contributes to significantly lower employment rates for people with disabilities. According to the Bureau of Labor Statistics, only 21% participate in the labor force, while 8% are unemployed compared to 68% and 4% of non-disabled individuals respectively.ⁱ

AVs have the potential to drastically improve access to employment and the broader community. However, the promise and safety of AVs will only be realized if the vehicles and the surrounding infrastructure are fully accessible, and the safety elements consider the needs of people with disabilities. To that end, we submit the following in response to questions for the Inclusive Design Challenge.

Category 1: Challenge Topic and Design

Category 1, Question 1. The Challenge could address elements of independently using a passenger vehicle, as described above. Are crucial elements missing? If so, please describe the missing element(s) and discuss how they create challenges for independent travel.

Please consider including in vehicle use solutions how individuals with disabilities will interact with the vehicle as a pedestrian. Interactions may include approaching or crossing in front of the vehicle and entering a public right of way such as a crosswalk. If the crosswalk does not have an audible pedestrian signal or light, how will pedestrians, including those with cognitive and sensory disabilities, know it is safe to cross in front of the vehicle? How will vehicles identify people with disabilities, including service animal and wheelchair users?

Category 1, Question 2. Is there benefit to including an option for the development of a full concept design for inclusive vehicles (i.e., in reimagining the vehicle design)? If so, please explain why and describe what requirements should be considered as part of this concept proposal.

There is tremendous benefit to including an option that incentivizes reimagining the vehicle design to be inclusive and fully accessible. In fact, without reimagining, the vast majority of light duty AVs used in fleets for on-demand or micro-transit service will continue to exclude people with disabilities. Passenger vehicle AVs that are available for purchase may not be able to be modified at all (depending on the location of batteries or other AV equipment). In addition, modifications will be, as stated in the RFI, “expensive and cumbersome”. Not reimagining vehicle design ensures continued discrimination; requiring additional costs for people with disabilities and their families to enjoy the same access to mobility as non-disabled vehicle owners.

In addition, full concept design vehicles would likely lead to efficiencies and lower costs when mass-produced, and allow transit agencies or other service providers savings when purchasing required accessible vehicles. Finally, a fully inclusive vehicle design is necessary to ensure a safe, user friendly and accessible mobility experience. And, as has been the case for most advances in accessible design, the non-disabled public is likely to benefit as well.

Requirements to be considered should include all tasks listed in vehicle use in the challenge features, as well as interaction with the vehicle as a pedestrian with a sensory, cognitive or physical disability.

Category 1, Question 4. Stakeholder engagement is an important aspect of the Inclusive Design Challenge. In what ways should DOT continue stakeholder engagement throughout the project to support teams in receiving valuable feedback on their designs (e.g., expert panels, public webinars that solicit feedback etc.)?

Teams submitting grant applications must be required to include members of the disability community as advisors to ensure the projects will be successful and meet identified needs. Disability community involvement from the start of any project is essential. We also recommend DOT encourage participation of people with disabilities with professional training on design teams.

Any additional DOT stakeholder engagement would be welcome, including online or in person convenings, and public webinars. Stakeholder engagement, convenings, and review of the applications should include the U.S. Access Board, the National Council on Disability, NHTSA, FTA and ATTRI staff, as well as interested CCAM organization members.

Category 1, Question 6. Do the proposed Challenge background, purpose, and challenge features sections above provide sufficient information to inform proposals? If not, what additional information would be helpful?

Additional background, purpose and clarification may prove useful for engineers and industry stakeholders who are not aware of current accessibility requirements or mobility barriers for people with disabilities. Information to be provided could include:

- clarification of the term light duty passenger vehicle, the number of passengers that might be accommodated, the weight of the vehicle, and potential seating configurations;
- whether designs must meet current federal motor vehicle safety standards, and in the case that they do not, whether new standards should be developed; and
- operational design domains in which the solution would be implemented, including whether fully accessible infrastructure such as crosswalks, accessible sidewalks and curb ramps would be necessary.

Design proposals could also include infrastructure needs and potential future standards to be compiled for future policy discussions, reports or guidance.

DOT should provide or reference a clearinghouse of relevant research, reports and presentations, including the October 2018 joint DOT and US Department of Labor Listening Session report, and the 2019 Auto Alliance accessibility workshops report and presentations. DOT should also provide a list of all applicants for the inclusive design grant funding similar to the list provided for the 2019 automated driving systems grant funding.

Category 2: Evaluation

Category 2, Question 1. How can DOT evaluate proposals on the basis of:

- a. Inclusiveness?*
- b. Production feasibility?*
- c. Expected user experience?*

DOT could evaluate proposals on inclusiveness and expected user experience by prioritizing proposals that address a range of needs and challenge features, that provide accessibility and usability as part of the original manufacturing process, and that demonstrate usability testing by individuals with disabilities in a variety of contexts.

Category 2, Question 2. What evaluation criteria are most important when considering how proposals can best enable access to AVs for persons with disabilities:

- a. Description of how the proposed solution contributes to independent travel*
- b. Demonstration of a realistic understanding of users and their unique needs*
- c. Demonstration of the engineering needs and explaining how the team arrived at that determination of need*
- d. Determination of the potential cost and manufacturability*
- e. Thorough description of the user experience when the technology is implemented*
- f. Consideration of the human-machine interface needs both inside and outside of the vehicle*
- g. Consideration of a range of needs and limitations, including users in a range of geographic contexts, income brackets, and with and without access to a smartphone or bank account*
- h. Other criteria*

Of the evaluation criteria options provided, the most important would include (b) proposals that demonstrate a realistic understanding of users and their unique needs, as well as (g) consideration of a range of needs and limitations, including income, and those without access to smartphones or bank accounts.

Category 2, Question 3. How would evaluation criteria be different if there were two types of proposals being considered (such as components and full design)?

We ask DOT to only consider, or at the very least highly rank, solutions that do not require aftermarket modification, and allocate funds in such a way to ensure solutions are being developed and address the needs for all disability types. Solutions proposed should aim to not only decrease, but eliminate the need to modify Level 4 and 5 AVs post-production, or to, again, eliminate the cost of retrofitting AVs for use by persons with disabilities, including wheelchair users.

In addition, where there are solutions that are not proposed for identified needs, DOT should convene stakeholders to consider alternative development methods.

Conclusion

Thank you again for the opportunity to comment on the inclusive design challenge. We view the proposed grant funding as a reflection of DOT's commitment to access and mobility, and we appreciate DOT's focus on this important issue as we mark the 30th Anniversary of the Americans with Disabilities Act. We look forward to supporting your work and remaining engaged in these vital conversations. Please do not hesitate to contact CCD Transportation Task Force Co-Chairs with any questions.

Sincerely,

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ⁱ Persons with a Disability: Labor Force Characteristics - 2018, Press Release. February 26, 2019. Bureau of Labor Statistics. <https://www.bls.gov/news.release/pdf/disabl.pdf>