



Comments submitted to: Office of the Secretary,
US Department of Transportation
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Submitted by: Community Transportation
Association of America (CTAA)

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Comments – Automated Vehicles 3.0: Preparing for the Future of Transportation

<u>CTAA AV PRINCIPLES</u>
Accessibility
Equity
Rural Connectivity
Safety

Introduction

The [Community Transportation Association of America](#) (CTAA) staff, board, state/tribal delegates, and members are dedicated to ensuring that all Americans, regardless of age, ability, geography or income, have access to safe, affordable and reliable transportation. CTAA members

are in the business of moving people – efficiently and cost-effectively – by transit, paratransit, volunteer transportation, and specialized transportation. Many of these rides are provided in conventional buses, cars or vans, or, when necessary, in vehicles retrofitted to be accessible for persons with disabilities. Our members’ transportation, therefore, spans multiple modes and a variety of populations with special needs.

CTAA supports the development of automated vehicle (AV) technology and AV transportation programs that offer accessibility, safety, convenience, and affordability wherever people live and whatever their financial positions, and their physical, sensory or mental conditions. CTAA enthusiastically supports the efforts of the US Department of Transportation (USDOT) to address the safety, regulatory, planning and other issues that our nation must consider before AVs become a presence on public roads throughout the country.

CTAA is a leader in providing resources and analysis of AVs and their impact on mobility options. We are educating transportation professionals across the United States, providing AV technical assistance, presenting at conferences, and engaging in discussions with companies developing different aspects of AVs and associated software. We monitor AV issues daily to stay abreast of technological, legislative, and regulatory updates. We have connected with other national organizations with an interest in how AV development affects their constituencies. Our work increasingly integrates emerging business models, public-private partnerships, and shared-use experimentation and advances.

While CTAA finds much to praise in AV 3.0, we also find cause for concern. We applaud the comprehensive scope of safety issues mentioned, the inclusion of people who are unable to drive, the attitude of cooperation toward working with states and localities, and the awareness of transportation modes beyond the private vehicle. But CTAA is concerned with the role that USDOT embraces for itself in AV 3.0, which is that of facilitator and stakeholder, rather than as an agency entrusted to make sure that our multimodal transportation network is safe and that the travel needs of all Americans are supported.

CTAA recently published our [AV principles](#): (1) Accessibility, (2) Equity, (3) Rural Connectivity, and (4) Safety. Our AV 3.0 comment is divided according to those four topics.

Accessibility

CTAA appreciates that AV 3.0 mentions accessibility and universal design, which will ensure freedom and independence for older adults and persons with disabilities, and which the USDOT leadership has repeatedly declared will be a major benefit of AVs. We are glad for this encouragement. However, accessibility should not only be mentioned in the context of transit, but should also be encouraged, if not required, for all AVs.

Physical AV design: CTAA is disappointed that AV 3.0 does not discuss what is necessary for the goal of AV accessibility to be realized. We realize that while the USDOT does not have statutory authority to compel that AVs beyond particular modes include accessible design to enter, exit, and ride in an AV, but we hope that the USDOT will articulate what the companies that are manufacturing and developing AVs – for all transportation modes – should do to embed universal design.

As we all know, nearly three decades since the Americans with Disabilities Act (ADA) was passed, accessible transportation is still a dream for many. Instead of retrofitting AV transportation at some point in the future, we urge the USDOT to instead require embedding accessibility into this transportation revolution so that AVs will actually deliver the accessibility from the start for persons with disabilities and for older adults, two fast-growing US demographic segments. This formal encouragement, with details about what accessibility means, would do much to realize the dream of universal design that USDOT and modal agency leadership keeps stating is the goal.

As the USDOT is well aware, our Civil Rights laws, and USDOT regulations promulgated to implement those laws, mandate that its modal agencies carry out their responsibilities, in funding and supporting transportation projects, to provide for the full inclusion of all Americans. It is incumbent on the USDOT to adhere to the letter and spirit of the law and USDOT regulations so that AVs improve the lives of people with disabilities instead of leaving these individuals further behind.

Title VI and USDOT regulations declare that “no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the

benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance from the Department of Transportation.” (49 CFR 21.1; see also 42 U.S.C. § 2000d et seq.) USDOT regulations proscribe, “Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) as amended, to the end that no otherwise qualified individual with a disability in the United States shall, solely by reason of his or her disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” (49 CFR 27.1) Section 508 of the Rehabilitation Act requires that any electronic and information technology used, maintained, developed, or procured by the Federal government allow persons with disabilities comparable access to information and technology. (29 U.S.C. § 794 (d))

It is therefore incumbent on the USDOT to promote and provide its assistance to ensure that people with disabilities, older adults, and other populations that are transportation challenged may fully participate in the emerging AV transportation system when it becomes a reality.

Interface design: CTAA maintains that accessibility is already required for interfaces that individuals will use to order, cancel, meet, and communicate with an AV during a ride or in the event of an emergency. AV communication interfaces and the vehicles themselves implicate these laws and regulations.

Since the advent of the Internet, the ADA has been uniformly interpreted to consider device interfaces, such as websites, to effectively be places of public accommodation. Commercial websites are required to comply with ADA regulations. The Communications Act, §255, requires that telecommunications equipment and services be accessible to, and usable by, individuals with disabilities, where readily achievable. The mandate of §716 extends to smartphones, apps, and texts. The same broad legal requirements will extend to AV interfaces.

Please be mindful that all disabilities are not alike and that the USDOT and other relevant federal agencies should promulgate appropriate regulation relating to interfaces for people with visual, auditory, cognitive, and physical disabilities.

Accessible universal design is profitable for the private sector: Designing for people with disabilities means better design for everyone. All of the AV shuttle pilots show this with their wheelchair ramps, but, in terms of vehicles designed for eight or more people, a prime example is the [Olli AV shuttle](#), which was [designed with and for people with disabilities](#) as much as for the general public. Not only were people with disabilities invited in, listened to, and asked questions, but even more important is that the Olli team designed to accommodate a range of different types of disabilities. [Local Motors](#), the company that manufactures the Olli, saw its own best interests in taking the time to learn what people need and want and feels comfortable, actively engaging people with disabilities, who, for the most part, continue to suffer from significant transportation challenges.

Another example is a [concept design from Renault](#), which incorporates accessible physical design into an attractive shared-use commercial vehicle. Without a driver, people with luggage

will appreciate accessibility as will people with strollers and grocery carts. Considering the private-sector investment in emerging shared-use transportation models, it is already apparent that they see profit in publicly available shared-ride modes. Making sure that AVs deliver these types of transportation services will bring both profit to industry and independence to people with disabilities and older adults.

CTAA strongly supports research and partnerships that promote this type of private and public AV design.

Equity

AV 3.0 ignores the changes occurring in transportation services, the trajectory of generational attitudes, and the broad disparity in multimodal availability depending on wealth, ability, and even zip code.

CTAA understands that while it is not the role of AV 3.0 to pick winners and losers in terms of developing technology, the USDOT should be encouraging those who do and will provide AV transportation to ensure that it will be available to Americans wherever they live, whatever their income, and whatever their level of ability or disability.

Rural Connectivity

Some of the photos included in the pages of AV 3.0 display beautiful small-town streetscapes, but literally nothing in AV 3.0 creates a path to ensure that people who live in those small towns and the rural areas surrounding them will have the same access to AVs as other Americans.

CTAA encourages the USDOT and its counterparts at other federal agencies to provide technical assistance, funding, and collaborative ventures with the AV industry to ensure that business models capable of delivering quality passenger transportation for rural and small urban connectivity will be implemented. One idea that CTAA is exploring is the use of rural AV transportation cooperatives, modeled after rural electric cooperatives, because this is a successful and popular business model in rural regions and one in which there is considerable experience at the local and state levels.

Safety

Improved safety is one of the most important benefits of AV technology, Yet, much of the safety-related language in AV 3.0 is vague. Though the USDOT sincerely declares a commitment to safety, it emphasizes throughout AV 3.0 that the federal role in transportation is limited to calling for voluntary self-certification and voluntary industry standards. The USDOT perceives itself to be more facilitator and stakeholder than safety regulator and enforcer of national rules. While industry input into appropriate safety standards and regulation is fine, ultimately federal

regulations and enforcement are what create a safer, more even, playing field on which AV innovation will take place and thrive.

Public outrage over crash fatalities led to the [creation of the National Highway Transportation Safety Administration](#) (NHTSA) and the Congressional mandate to set safety standards. (See also [National Highway Transportation Safety Administration](#), Wash. Post, Apr. 2, 2002.) What is somewhat disturbing about AV 3.0 is that it sets a goal of "maintaining existing levels of safety," which currently amounts to 35-40,000 people killed per year in the US alone. That is not an acceptable level of safety to aim for.

What AV 3.0 makes clear is that instead of leading to establish safety benchmarks or beginning a process with a timeline for collaborating with stakeholders to do so, the USDOT seems to be creating a standard of liability, of what the reasonable company should do, for when crashes occur. AV 3.0 gives laudable advice to know one's technology's capability and limitations; make sure it is functioning properly; train staff to deal with it; and perform maintenance. But lawsuits will be an inefficient mechanism for regulation and a rational rulemaking process may very well prevent crashes and other mishaps from occurring in the first place.

Bus transit, subject to Federal Transit Administration (FTA) regulation (and, in some cases of interstate operation, also subject to Federal Motor Safety Carrier Administration (FMSCA) regulation) is the safest mode of surface transportation in the United States. In fact, [bus transit systems overall, and rural transit in particular, is the safest mode of surface transportation in the United States.](#)

CTAA encourages the USDOT to aim for and support the achievement of this level of safety – for all modes – in the AV age. The USDOT's leadership will be instrumental to that achievement.