

Automated Shuttles and Buses for All Users

SAFE-D
University Transportation Center



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Texas A&M Transportation Institute
Automated Road Transportation Symposium
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Project Overview

Introduce individuals with mobility and visual impairments to automated vehicles and a smart intersection, and gain information on their complete trip.



Arlington RAPID Shuttle

- City of Arlington, UTA, Via Rideshare, May Mobility, and other groups
- Initial Session
 - Pre-Survey & Discussion
 - Ride In Vehicle
 - Post-Survey & Discussion



Participants

- Male, Wheelchair, Companion
- Female, Blind, Guide Dog
- Male, Colorblind
- Female, Walker, Companion
- Male, Walker



Initial Reactions

- Positive Reactions and Experiences
- Felt Comfortable and Safe
- Generally Smooth Ride
- Used Assistance



Initial Reactions

- Ensure and Verify Pickup and Drop-Off Location
- Would Use on Regular Basis
- Need Similar Vehicles for Wheelchairs
- Need for Assistance



Complete Trip/Built Environment

- Handicapped Vehicle Parking
- Curb Cuts, Ramps, Sidewalks
- Traffic Speeds
- Ensuring Correct Locations
- Questions on Sharing Vehicles
- Need Attendant

TCRP B47 – Impacts of Transformational Technologies on Underserved Populations

- Focus Groups and Surveys
- Persons with Ambulatory and Vision Impairments included
- Self-Driving Vehicles included

TCRP B47 – Impacts of Transformational Technologies on Underserved Populations

- Focus Groups
 - Positive reaction – would improve mobility
 - Some concerns on technology and safety
 - Ensure locations for pick-up and drop-off
- Surveys
 - Lack of knowledge of self-driving vehicles
 - Questions on trust in technology
 - Questions on cost
 - Positive impact on improving mobility

Future Activities

- Additional RAPID Participants in the Fall
- Focus Groups on Smart Intersection
- Identify Enhancements to Aid Disabled Individuals' Access to and use of Automated Vehicles
- Host Workshops
- Develop Videos

Challenges and Opportunities

- Outreach to Disabled Community
- Built Environment Limitations
- Overcoming Initial Concerns
- On-board Support Needed
- Positive Reactions with Service
- Enhance Mobility
- Provide Options

B210 – Automated Shuttles and Buses for All Users

- Jeff Kupko, Michael Baker International
- Pruthvi Manjunatha, University of Florida
- Ann Foss, City of Arlington
- Tara Olds, Minnesota Department of Transportation
- Steven Suder, National Park Service
- Kimberly Williams, Metropolitan Transit Authority of Harris County
- Achille Fonzone, Edinburgh Napier University
- Katie Turnbull, Texas A&M Transportation Institute
- Justin Mason, University of Florida
- Rosemarie Cooper, University of Pittsburgh

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