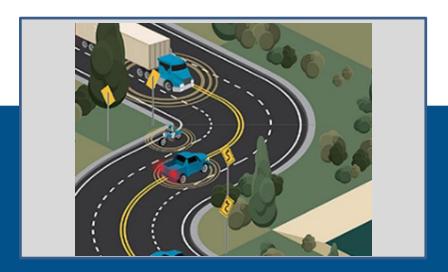




Rhode Island Transportation Innovation Partnership AUTONOMOUS VEHICLE MOBILITY CHALLENGE





Julia Gold, Chief of Sustainability and Innovation Rhode Island Department of Transportation



RIDOT's Policy and Innovation Team



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RIDOT's Efforts to Date

- April 2017: RIDOT hosts International Mini-Summit on CAVs
- June 2017: RIDOT issues <u>Request for Information (RFI)</u> on CAVs and innovative transit systems
- July 2017: The <u>Rhode Island Transportation Innovation</u> <u>Partnership (TRIP)</u> is established
- September 2017: TRIP hosts CAV Expo at The New England Institute of Technology
- October 2017: RFI Closed & Reviewed
- November 2017: Joint research forum with URI on "Transportation Innovation Partnership (TRIP): Leading the Way for Research"







TRANSPORTATION INNOVATION PARTNERSHIP



GOALS OF TRIP

- Safer transportation
- Sustainability, fuel reduction, reduced congestion
- Improved and equitable mobility
- Economic growth and a strong workforce
- Smart cities, data management, and privacy





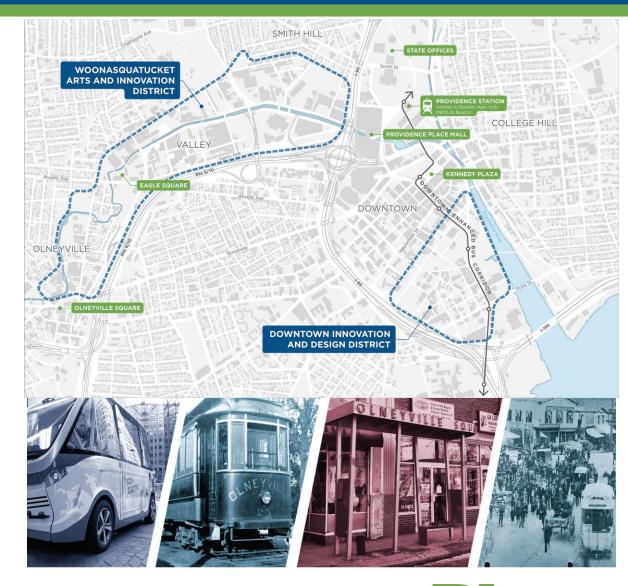






TRIP Autonomous Vehicle Mobility Challenge

- A pilot program aimed to safely test multipassenger autonomous vehicles (SAE Level 3+) on Providence's streets
- Presenting a unique opportunity to explore the integration of new technologies into public transit
- Providing the public exposure to autonomous vehicles and the opportunity to engage in the Challenge and learn with us





PARTNERS







THE CREATIVE CAPITAL





TRIP MOBILITY CHALLENGE



RFP Issued: April 27, 2018



Pre-Proposal Conference May 21, 2018 @ 1:00 PM



Submissions Due July 13, 2018 @ 11:30 AM



The TRIP Approach

- Create a safe and accessible environment for testing autonomous vehicles in RI
- Complement RIPTA service with electric micro transit
- Improve mobility with a focus on equity
- Create a framework for economic growth and a stronger workforce
- Integrate Smart City applications and explore data management and privacy concerns
- Leverage academic partners to research opportunities and challenges
- Engage and educate the public



Why the Woonasquatucket Corridor?

- One of Providence's new Urban Innovation Districts
- Increasing residential, commercial, and non-profit investment
- Diverse neighborhoods with a variety of needs
- Transit Desert- There is no existing RIPTA service







Research Team

Representatives from local and regional higher education institutions, technical colleges, and government research entities

- Workforce: opportunities for career pathways and impacts, operator roles, responsibilities, and experiences, convening of public to engage in workforce dialogue
- Social and behavioral impacts: public acceptance and understanding of the technology, user behavior, transit choices and trends, etc.
- Environment and Land use: fuel related emission impacts, charging needs, charging infrastructure, integration on existing roads and with existing transportation infrastructure, land use opportunities/impacts
- Design and the human-machine interface: vehicle design and human interaction, interior design and information sharing, mobile applications



Phase I: Within 90 days of contract award

- Vehicle Identification and Approval (including NHTSA certification)
- Phase I Testing and Approval
 - Relatively controlled environment testing on roads within Quonset Business Park
 - Both daytime and nighttime testing and adverse weather condition testing
- Stakeholder Engagement
- Route Finalization
- Marketing Plan, Education Plan, Emergency Plan and Training, etc.



Phase II: Testing on Proposed Service Route

- Testing and configuration of the Vehicle(s) on the approved service route
 - Minimum 4 weeks
 - No occupants on vehicle(s) other than Vendor, RIDOT, and TRIP partners
 - Both daytime and nighttime testing and adverse weather condition testing
 - Must be repeated at Quonset for adverse weather conditions (i.e. snow, rain, etc)
- Safety report after testing
- Public showcase and stakeholder engagement of vehicle(s)



Phase III: Live Operations

First two weeks of Live Operations to be conducted under controlled conditions during which the Vendor with RIDOT approval may make needed adjustments based on the observations

- Weekly performance reports
- Provide adequate traveler information available online, in-app, and at various stops along the route

Phase IV: Scalability

Assessment Report on the overall viability of the Service, including recommended adjustments for Year 2 of Operations and the scalability of the Service to other districts within the City of Providence and/or Rhode Island



Questions?

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