



Connected and Autonomous Vehicle (CAV) Task Force

“Roadmap Refresh” Input Sheet | September 20, 2019

Each response uniquely numbered; missing numbers for some questions indicate no specific input on that item from that TF member

What value does the Task Force represent for you, your organization?

- 1) Learn what is going on. Share information specific to Charlotte Region
- 2) Cohesive regional approach
- 4) Focus: modeling for long range planning + programming scenario planning – land use + transportation. Task force provides the opportunity to plug into regional conversation to learn from other areas across the country through outside presentations.
- 5) a. Provides assistance w/interrogating this topic into the CATPO’s planning process.
b. Convenes the region to discuss a topic that I best discussed at a regional level, not at a local level.
- 6) A lot of value in helping us understand CATV technology and how to implement/investigate them.
- 7) The task force represents an opportunity to learn more about the rapidly growing region and how we can plan for this future growth. The rural areas are experiencing pressures from this growth and many of the small municipalities are not prepared for the changes coming their way, the task force can help them.
- 8) It provides the ability to share information based on project experience and to learn.
- 9) a. Information-staying abstract on the latest information so we can give and inform over decision makers.
b. Are there opportunities to incorporate improvements before this technology is widespread or do we wait until later?
- 10) An opportunity to involve small, rural misenheimer with the wider region and to remain abreast of the important CAV topic and try to derive as much benefit as possible for places like us.
- 11) a. staying up to date with CAV trends
b. Coordination with the regional TPOs on impacts to transportation planning

What will ensure continued success in 2020?

1. What new information do we have that impacts the Roadmap?

Shifting priorities?

- 1) a. Implementation can take longer than expected, how do we effectively handle the transition?
b. Resources (Funding, manpower), Interdisciplinary teams
- 2) Area encompassed; ASRC
- 3) Area of influence larger, safety benefits, 5G vs. DSRC
- 4) NCDOT budget issues – not enough funding to go around to refocus on ITS – not all concrete + asphalt + maintenance funding issues – have stripping, etc. impact of readiness for CAV communication.
- 5) Recent NCDOT budget problems – what is the ripple effect for implementing infrastructure and technology needed for a fully autonomous future? Some will be negative; some will be positive.



- 6) Evolving technology changes decreased transportation budget
- 7) a. The new census data will have an impact.
b. Weather changes could have future impacts on growth + travel patterns.
- 8) Longer transitional period than originally expected (mixed fleet). Due to rate and advancement of the technology and the acceptability of the technology.
- 9) ITS – funding gap – what is next? What is the alternative? Identify potentially isolated and disconnected communities and evaluate what the needs are to best mitigate possible negative impacts.
- 10) Watching the region change and watching vehicles become incrementally more autonomous

Poster notes) a. with less money, how can we spend in a smarter way? -ITS
b. Changes to systems (plan, operate, maintain) as new tech comes about and of budget to nonphysical items.

New facts globally or locally? Emerging processes (e.g.-Transportation planning) that help or hinder?

- 1) A. Possible influence on land use patterns.
B. Trip making patterns
C. Possible influence on some businesses
D. could increase demand for travel?
E. Plan infrastructure development, advanced to handle.
- 2) Federal framework
- 3) Washington
- 4) Shifting timelines or deployment
- 5) Uncertainty with when CAVs will be deployed
- 6) Decreased maintenance budget – to maintain roadway mapping and other items necessary for CATV use to be successful.
- 7) a. Incorporation of new transportation modes – uber, lyft, scooters.
b. Land use plans and zoning to address new focusing trends – Air BnB, VEBO
- 8) Increased trips could further increase congestion
- 9) Evaluating and predicting possible ride share changes data or information uber and lyft has partnerships with CATS shown any impact to transit ridership.
- 10) In our community we struggle to provide walkability.
Poster notes: Tech on public infrastructure

What issue areas stay? What gets dropped or modified?

- 2) Lack of regulation
- 3) Mixed fleet, collaboration
- 4) Drop fleet management to different group
- 5) Fleet management does not seem like a good fit for the task force
- 6) Concerns about how to handle mixed fleets remain high for me
- 8) Possibly fleet management (dropped?)
- 10) The interplay between progress toward autonomy and changing need to encourage continued progress.
Poster Notes: costs are up and taxes are not unit based; 2020 election.



2. How might we update the document to suit our needs?

Narrowed and simplified targets for 2020? Examples?

- 1) A. Education workshops on specific topics
 B. Model/Forecast driver/user behavior
 C. Test bed for installing collecting data (will help with developing calibrated models)
 D. Data storage analytics
- 2) Depends on election
- 3) Identify funding sources
- 4) Common approach to addressing CAVs in 2050 MTPs + modeling for them
- 5) Consider focusing on short term goals – a series of “wins” on short-term. Teams may help build momentum for addressing long-term issues.
- 6) Depends on how rapidly technology is evolving
- 7) Continue to document past and present transportation and growing patterns, incorporate new trends; track and forecast CAV use, bike use, and scooter use
- 8) Education
- 9) More focus on short term. Long term is very hard to predict with this technology changing constantly.

Poster notes: a. prioritize questions and shift focus to short term goals for wins.
 b. assign items to MRM modeling team

Specific assignments made? Topics best passed to others.

- 4) Modeling + forecasting (travel) to MRM team, Land use scenario testing to MCM + MRM teams.
- 6) Perhaps the modeling related tasks could be assigned to the MRM planning + applications committee.
- 7) Work with individual counties to utilize existing DOT data to produce intersection studies that would quantify the intersections in there are based on crash data and growth patterns.
- 8) Cyber security
- 10) Data maintenance needs to be handled on a global level. Privacy must be protected.

Example needs for updated phrasing and greater clarity?

- 5) Consider shifting form issue area questions to declarative statements that clearly state what should be done.
- 9) ACV to CAV
- 10) Balance short term and long term so that short term does not interfere with the long term.
- 11) Pg. 4 potential impacts – maybe tie VMT to funding (gas tax?)

How can formatting be updated for readability?

- 5) Formatting is usually appealing but can be somewhat confusing. A simplified list may be useful.
- 7) Clear Legends.
- 8) Summary slides in presentation provided a clear summary and the information.
- 9) Shorter summaries of individual workshops
- 10) Bigger print
- 11) Update ACV to CAV throughout the document? Update efficiency and convenience #'s on pg. 3