



Fully Autonomous Vehicle (FAV)

COMMITTEE MEETING

August 14, 2025



PREPARED BY

fountainworks
FACILITATION • MANAGEMENT CONSULTING

FAV Committee Members

Name	Title	Representing
Brian Mayhew	State Traffic Engineer, North Carolina DOT	Secretary of Transportation
John Hardin	Executive Director, Board of Science, Technology & Innovation	Secretary of Commerce
Chuck Whitehead	Legislative Affairs Attorney	Commissioner of Insurance
Tim Wilson	Captain, Commercial Vehicle Enforcement Section	North Carolina State Highway Patrol
Lawrence Capps	Chief, Knightdale Police Department	North Carolina Association of Chiefs of Police
Charles Blackwood	Sheriff, Orange County Sheriff's Office	North Carolina Sheriffs' Association
Justin Owens	Senior Research Scientist	University of North Carolina Highway Safety Research Center
Renee Gibson	Director of Government Affairs, Autonomous Vehicle Industry Association	Autonomous vehicle industry
Tara Andringa	Executive Director, Partners for Automated Vehicle Education	Autonomous vehicle industry
Torrey Dixon	Special Deputy Attorney General	Attorney General's Office, familiar with motor vehicle law
Terry Green	Chief, State Capitol Police	Local law enforcement
Dan Bennett	Vice President, Fleet and Asset Management, Old Dominion Freight Line	Trucking industry, designated by the North Carolina Trucking Association
Debbie Smith	Director, Charlotte Department of Transportation	Planner from an urban area, designated by the North Carolina League of Municipalities
Wallace Nelson	Perquimans County Commissioner, Board of Commissioners Chair	Planner from a rural area, designated by the North Carolina Association of County Commissioners



AGENDA

NC Fully Autonomous Vehicle (FAV) Committee Second Quarterly Meeting – Calendar Year 2025

August 14, 2025
2:00 – 4:00 p.m. ET
1 S Wilmington St.
Room 150 Raleigh,
NC 27606

2:00 p.m.	Welcome and Introductions	Brian Mayhew
	Background: Where We've Been	Sarah Searcy
	NCDOT Research Update	Curtis Bradley
	Strategic Plan Update	Kimley-Horn
	Identifying NC's Top 3 Priorities for FAV	Fountainworks
	Defining the Committee's Vision, Mission, and Purpose	Fountainworks
	Wrap-Up and Next Steps	Brian Mayhew
4:00 p.m.	Adjournment	

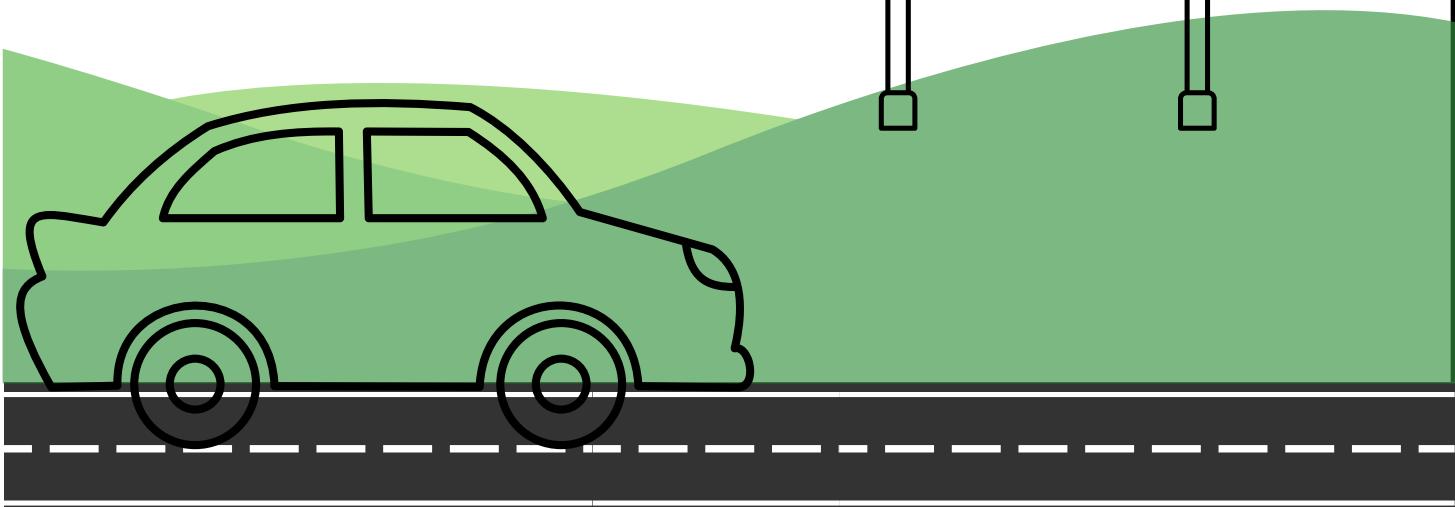
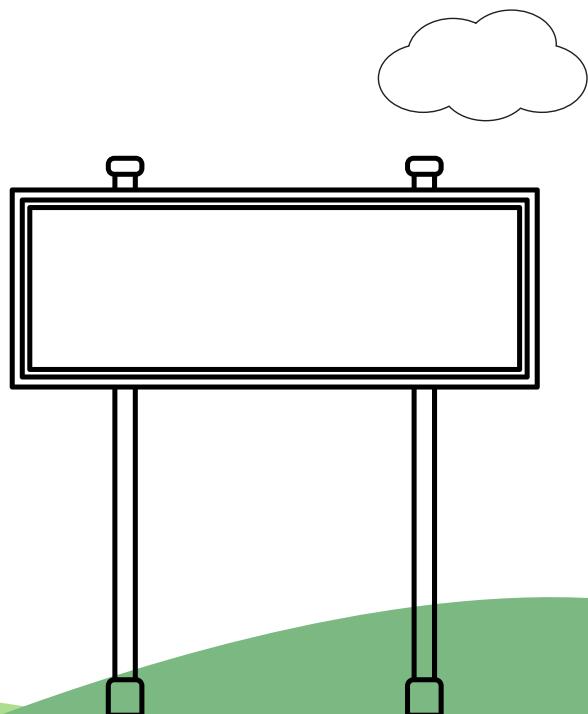
Committee Meeting Objectives:

- 1. Establish a Shared Understanding of the Committee's Purpose and Mandate:**
Ensure all members are aligned on the legislative foundation, goals, and scope of the FAV Committee. This will aid in the development of the committee charter.
- 2. Build Relationships and Shared Commitment:** Begin fostering collaboration and trust among members through introductions and shared discussion.
- 3. Set the Stage for Ongoing Engagement:** Confirm expectations for participation, communication, and next steps to maintain momentum between meetings.

Our Hopes

What is one hope
you have for the FAV
Committee?

Write it on the
billboard!



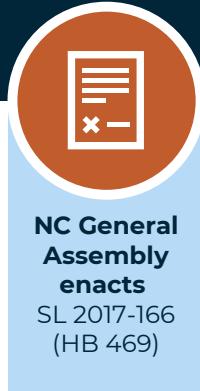
Notes

Background

FAV Committee's Duties and Membership

Duties of the FAV Committee

2017



NC General
Assembly
enacts
SL 2017-166
(HB 469)

July

SL 2017-166 (HB 469) enacted Article 18 in Chapter 20 ([G.S. § 20-400 – 403](#)) to:

- Regulate the operation of fully autonomous vehicles (FAV) and
- Create an FAV Committee within the Department of Transportation.

2018



March
FAV
Committee
Convenes

Duties. – The Committee shall meet regularly, and at a minimum four times a year, to:

- Consider matters relevant to fully autonomous vehicle technology,
- Review State motor vehicle law as they relate to the deployment of fully autonomous vehicles onto the State highway system and municipal streets,
- Make recommendations concerning the testing of fully autonomous vehicles,
- Identify and make recommendations for Department of Transportation traffic rules and ordinances, and
- Make recommendations to the General Assembly on any needed changes to State law.

Staff. – The Department of Transportation shall provide staff and meeting space, from reasonably available resources, to the Committee.

FAV Committee Membership

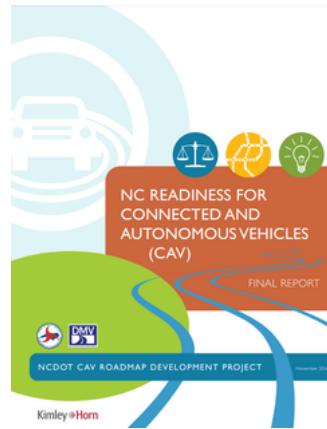
Membership. – The following persons shall serve on the Committee:

1. Secretary of Transportation, or the Secretary's designee.
2. The Secretary of Commerce, or the Secretary's designee.
3. The Commissioner of Insurance, or the Commissioner's designee.
4. A representative of the Highway Patrol, designated by the Commander.
5. A representative of the North Carolina Association of Chiefs of Police, designated by its Executive Director.
6. A representative of the North Carolina Sheriffs' Association, designated by its President.
7. A representative of the University of North Carolina Highway Safety Research Center, designated by the Director.
8. At least two representatives from the autonomous vehicle industry, designated by the Secretary of Transportation.
9. A representative of the Attorney General's Office, designated by the Attorney General, who is familiar with motor vehicle law.
10. A representative of local law enforcement, designated by the Secretary of Transportation.
11. A representative of the trucking industry, designated by the North Carolina Trucking Association.
12. A planner from an urban area, designated by the North Carolina League of Municipalities.
13. A planner from a rural area, designated by the North Carolina Association of County Commissioners.
14. Two members of the North Carolina Senate, designated by the President Pro Tempore of the Senate.
15. Two members of the North Carolina House of Representatives, designated by the Speaker of the House.

FAV Committee – Next Steps

Recommendations Based on Committee Feedback

- Update and confirm committee membership.
 - Letters of appointment with periodic recommitment.
- Web-based resources.
- Charter.
- Strategic plan update.
- Task force model with workplans.
- Industry outreach.
- Public engagement.
- Annual report.



FAV Committee Webpage

A screenshot of the 'NC Fully Autonomous Vehicle (FAV) Committee' page on the 'Connect NCDOT' website. The page has a header with 'Business Partner Resources' and a search bar. Below the header, there are sections for 'Purpose and Duties' and 'Membership'. The 'Purpose and Duties' section includes a list of 17 members from various state agencies. The 'Membership' section lists 15 members from the private sector. There are also sections for 'Resources' and 'Links'. At the bottom, there are links to 'Agendas and Minutes' and 'Meetings'. The footer includes a 'Feedback' link and a copyright notice.

<https://connect.ncdot.gov/groups/FAV/Pages/default.aspx>

- Purpose and Duties
- Membership
- Meeting Agendas and Minutes
- Resources
 - National
 - State
 - Local

NCDOT's CAV Activities

Connected and Automated Vehicle Activities



Connected and Automated Vehicle Activities



CAV Program Next Steps

2025

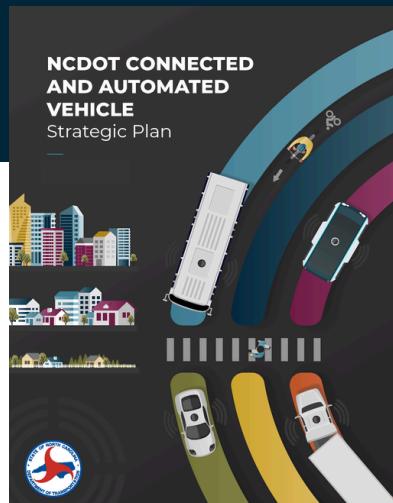


NCDOT's CAV program will leverage our existing expertise across the important disciplines needed to advance the work, our foundational programs and projects, and the strong external perception of our state and national engagement.

- **Strategic plan** with incremental and achievable activities;
- Inclusive **vision, mission, and goals** for how we investigate and solve problems related to CAV;
- **Charter** for committees and working groups;
- **Process for collaboration** and pathway for industry partnerships supported by a **communications plan** and **webpage**;
- **Process for policy review and development**; and
- Recruitment of champions from executive leadership to drive **sustained funding and resources**.

CAV Program Next Steps

2025



Foundational Activities

- Accomplishments to Date
- Complementary Plans and Initiatives
- Key Stakeholders

NCDOT's CAV Roadmap

- Mission and Vision
- Guiding Principles
- Goals
- Focus Areas and Priority Questions
- Objectives



The slide features a dark blue background with a subtle geometric pattern. In the top left corner is the North Carolina Department of Transportation logo, which includes a circular seal with three figures and the text "NORTH CAROLINA" and "Department of Transportation". The main title "NCDOT Research Engagement Summary: Connected & Automated Vehicles" is centered in large, bold, white font. Below the title, the author's name "Curtis T. Bradley, Ph.D." and title "Manager of Research & Development" are listed in white. The date "August 14, 2025" is also in white. At the bottom of the slide, a white horizontal bar contains the text "Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina".

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CAV Summary

Contents for CAV Research



Summary of Research Programs



Summary of Research Programs

<p>Transportation Centers of Excellence</p> <ul style="list-style-type: none">• Multi-University Collaboration• Basic / Innovative Research Focus• 2-3 Years Duration – ~\$1,000,000 Funding	<p>Long-Term Research</p> <ul style="list-style-type: none">• Core NCDOT Research Program• Applied Research Focus• 2-3 Years Duration – \$100-\$250K Funding	<p>Technology Transfer / Implementation</p> <ul style="list-style-type: none">• Implementation Assistance• Focus on Development, Pilots, Training / Workshops• 1-2 Years Duration – \$50-\$200K Funding	<p>Technical Assistance</p> <ul style="list-style-type: none">• Short-Term Applied Research• Synthesis, White Papers, etc.• 120 Hours Duration – \$15-\$30K Funding	<p>National Cooperative Highway Research Program</p> <ul style="list-style-type: none">• National Pooled Fund Program• Research, Synthesis, etc.• 1-3 Years – 5.5% of SP&R Funding
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CAV Summary

Transportation Centers of Excellence



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CAV Summary

TCE 2020-01: Advanced Transportation Technology Safety and Policy

Project #1: Impacts of
CAV-Ready Infrastructure
on Vulnerable Road Users:
Guidance for North
Carolina's Local and State
Transportation Agencies

Project #3: Operational
and Economic Impacts of
CAVs



University of
North Carolina –
Chapel Hill



Appalachian
State University



University of
North Carolina at
Charlotte

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CAV Summary

TCE 2020-02: Mobility and Congestion

Project #2: Smart Connected and Automated Vehicle Fleet Management: Developing Regional Dispatch Decision Support for Congestion Mitigation



North Carolina State University



Duke University



University of North Carolina – Chapel Hill

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CAV Summary

TCE 2020-03: Connected and Autonomous Vehicle Technology

Project #1: CAV Impacts on Traffic Intersection Capacity and Transportation Revenue

Project #2: Assessing North Carolina Readiness for CAVs in Traditional and Emerging Infrastructure Needs

Project #3: Developing and Implementing CAV-UAV Collaboration for Advancing the Transportation Systems

Project #4: Assessing the Impact of Connected and Automated Vehicles on Work Zones

Project #5: Evaluating Connected and Secure Edge Infrastructure for Scalable Hardware-in-the-Loop CAV Testbeds

Project #6: Define and Implement Potential Use Cases for Deployment of CAVs



North Carolina A&T State University



North Carolina State University



University of North Carolina at Charlotte

Long-Term Research



Long-Term CAV Research

A graphic element consisting of three concentric blue circles on the left side of the table.

RP2017-25: Feasibility and Demonstration of Small Automated Vehicles as a Viable Transit Solution in NC
RP2019-11: Impacts of Autonomous Vehicle Technology in Transportation Systems
RP2019-28: Enhancing AV Traffic Safety through Pedestrian Detection, Classification, and Communication
RP2022-16: Developing and Operationalizing a Testbed of Connected Self-Driving Shuttles to Test and Develop CAV Applications in NC
RP2023-11: Guidance on Considering CAVs in Travel Demand Models

Short-Term Research



Short-Term CAV Research

TA2025-07 – “Review the State-of-the-Art Studies on the Public’s Perception of Advanced Driver Assistance Systems and Assess the Actual Performance”

* “National and State Level Approaches to Automated Vehicle Certification”	* “State DOT Policy and Regulatory Approaches to Robotaxi Teleoperations”	* “A Platform for Social Media Tracking, Evaluation, Engagement, and Response for ADAS Technologies (STEER-ADAS)”
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*Projects that have yet to start.

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CAV Summary

Technology Transfer



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CAV Summary

CAV Technology Transfer / Implementation



RP2023-35: "Microtransit Pilot Project in Greensboro, NC"



TT2025-05: "Piloting the Remote-Controlled Operation of Automated Driving Shuttles"

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CAV Summary

National Cooperative Highway Research Program



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CAV Summary

CAV Technology Transfer / Implementation



NCHRP 20-68D U.S. Domestic Scan
23-02: "Recent Experiences in
Advancing and Deploying of
Automated Vehicle Technologies"

NCHRP 20-24(147): "Peer Exchange
and Research to Identify Best
Practices for Testing, Monitoring and
Deployment of Automated
Transportation Solutions to Support
Safety, Equity and Operational
Efficiency"



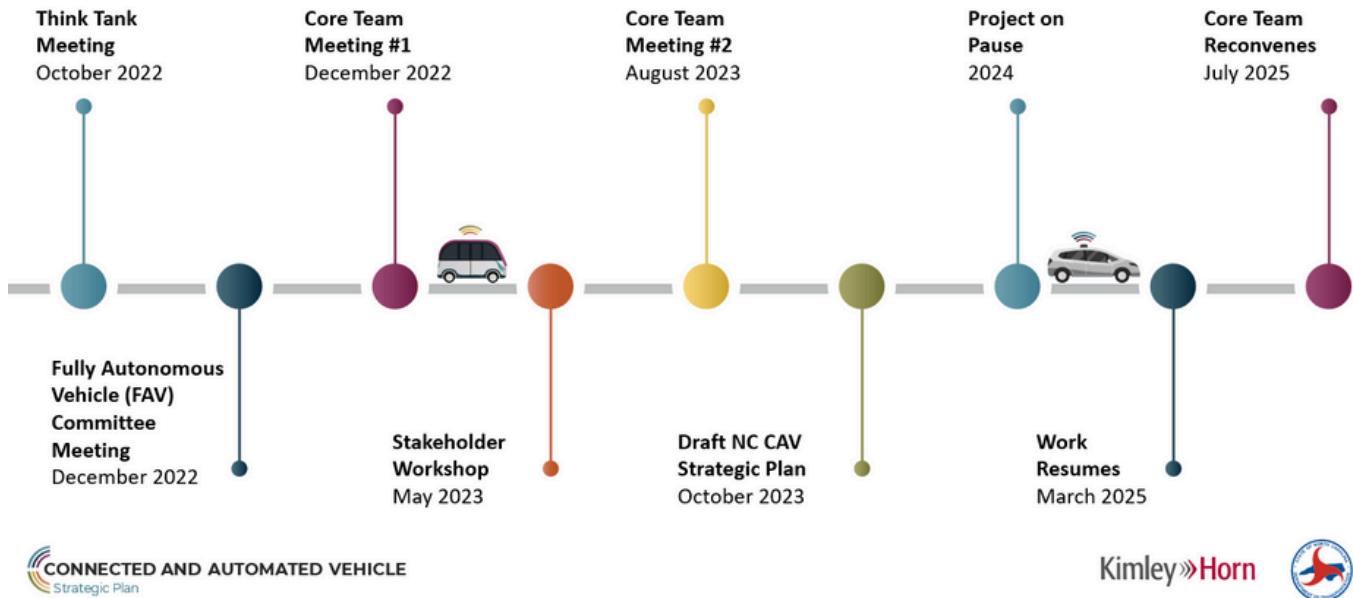
Strategic Plan Update

NCDOT CONNECTED AND AUTOMATED VEHICLE Strategic Plan

JULY 2025

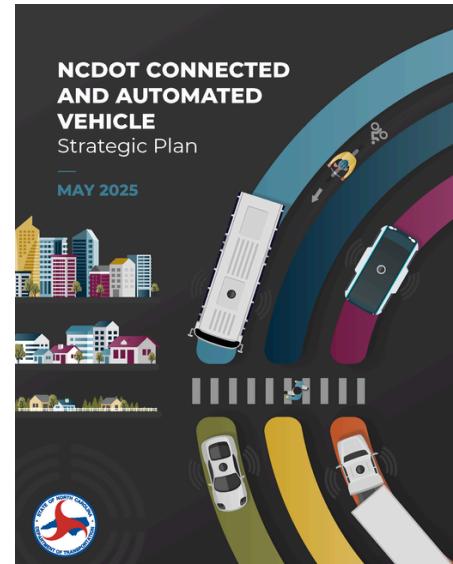


Strategic Plan – Process

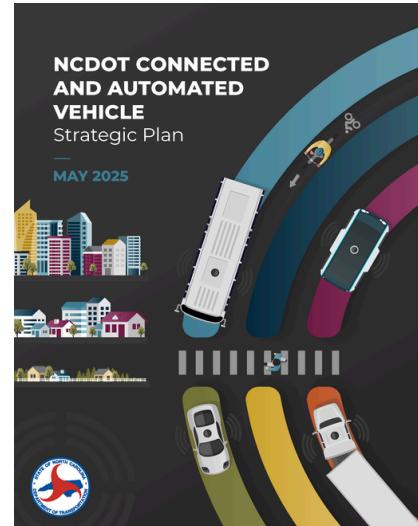


Plan to include:

- **Messages from NCDOT**
- **Executive Summary**
- **Introduction**
 - Plan Purpose and Process
 - Key Terms and Definitions
 - State of the Practice
- **Foundational Activities**
 - Accomplishments to Date
 - Complementary Plans and Initiatives
 - Key Stakeholders
- **NCDOT's CAV Roadmap**
 - Mission and Vision
 - Guiding Principles
 - Goals
 - Focus Areas and Priority Questions
 - Objectives



- July 2025 - Draft provided to Core Team
- August 2025 - Integrate Core Team comments
- September 2025 - Schedule to adopt Final Plan

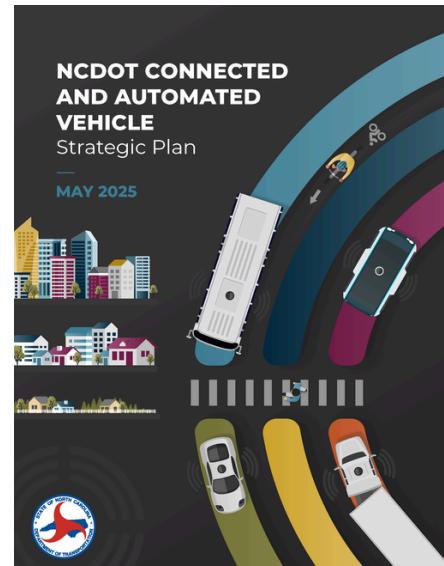


CONNECTED AND AUTOMATED VEHICLE
Strategic Plan

Kimley-Horn



- **Alignment with NCDOT's Mission and Vision**
- **Tailoring to priorities and needs related to CAV**



CONNECTED AND AUTOMATED VEHICLE
Strategic Plan

Kimley-Horn



Our Priorities

Share your Top 3 priorities for North Carolina regarding Fully Automated Vehicles (FAVs). Think about how you want NC to prepare to be a leader in CAV. Consider areas such as:

- Policy or legislation
- Infrastructure (signs, markings, signals)
- Safety
- Data sharing and regulation
- Funding
- Testing and deployment
- Any other areas of interest

My Top Three Priorities

Write them below.

1

2

3

Discussion Questions

Who are we?

Who is the FAV Committee in your view—is it primarily an advisory group, a task force, a public education body, or something else?

What work will we do?

What kind of work do you think the committee should focus on?

How does our committee fit into the bigger picture?

How would you like to interact with the NCDOT, the public, etc.?

Our Purpose

NCDOT FAV Committee Purpose Statement

To lead North Carolina's efforts in preparing for a future with fully autonomous vehicles by aligning innovation, infrastructure, regulation, and public interest in a cohesive and forward-looking strategy.

Use the space below to capture reflections, thoughts, and feedback on the purpose statement above.

Additional Notes

Space for notes/ideas/brainstorms/questions: