

Infrastructure & Systems Subcommittee

Cooperative Automated Transportation (CAT) Draft Policy Framework

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For questions or suggestions, please contact Infrastructure and Systems Subcommittee staff

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Cooperative Automated Transportation (CAT) Policy Framework

Washington State Autonomous Vehicles Working Group

Infrastructure & Systems Subcommittee

Introduction

Autonomous vehicles (AVs) and related technologies, such as Connected Vehicles (CVs) and Advanced Driver Assistance Systems (ADAS), are emerging technologies that are being tested and introduced into the vehicle fleet nationally and in Washington State. The Washington State Transportation Commission (WSTC) has a legislative mandate to prepare for the changing mobility landscape in the State of Washington.

Legislative Mandate

Current law (RCW $47.01.510^{1}$, expires December 31, 2023) directs the WSTC to appoint and convene an executive and legislative Work Group to gather information and develop policy recommendations to address the operation of AVs on public roadways in the State of Washington. The Work Group and the WSTC are charged with taking into account the transportation system policy goals established in RCW $47.04.280(1)^{2}$ and doing the following:

- ▶ Follow developments in AV technology, AV deployment, and related policies (including regulatory tools) for autonomous passenger and commercial vehicles.
- Explore approaches to modify state policy, rules, and laws to further public safety and prepare the state for the emergence and deployment of AV technology.
- Share information on AV technology and policies with all interested stakeholders.
- At the direction of the legislature, engage the public through surveys, focus groups, and other such means, in order to inform policymakers for the purposes of policy development.
- Develop and update recommendations annually based on the input provided by the work group and provide a report to the governor and the relevant committees of the legislature by November 15th of each year.
- Identify proposed modifications to state law and rules to address the emergence and deployment of AV technology in the state.

The AV Work Group convened seven subcommittees to assess challenges and needs, and generate recommendations for the Executive Committee to consider. These subcommittees are: Licensing, Liability, Infrastructure & Systems, Safety, System Technology & Data Security, Workforce, and Health & Equity.

 ¹ RCW 47.01.510 Autonomous Vehicle Executive and Legislative Work Group <u>https://app.leg.wa.gov/RCW/default.aspx?cite=47.01.510</u>
 ² RCW 47.04.280(1) Transportation system policy goals <u>https://app.leg.wa.gov/RCW/default.aspx?cite=47.04.280</u>

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The Infrastructure & Systems Subcommittee is charged with exploring transportation system issues as they relate to AVs and Cooperative Automated Transportation (CAT), such as roadway infrastructure, traffic management, transit, right of way, multi-modal transportation, Mobility-as-a-Service (MaaS), and Mobility on Demand (MOD). The Washington State Department of Transportation (WSDOT) is the lead agency for the Infrastructure & Systems Subcommittee.

The Infrastructure & Systems Subcommittee is also focused on:

- How AVs and AV policy fold into the overarching Washington State Transportation System Goals, established in RCW <u>47.04.280(1)</u> for the planning, operation, performance of, and investment in, the state's transportation system, and
- A statewide CAT Policy Framework that includes automated, connected, electrified, and shared mobility to support a holistic, safe and efficient multimodal transportation system.

Cooperative Automated Transportation

Cooperative Automated Transportation (CAT) enables all modes of transportation to work together through interdependent vehicle and systems automation and information exchange. CAT is intended to improve safety, mobility, and operations efficiency. CAT is inclusive of all:

- modes, (e.g. automobile, truck, plane, van, bus, rail, ferry, bicycle, scooter, pedestrian, etc.)
- systems (e.g. vehicles, infrastructure, information, communications, etc.), and
- applications (e.g. traffic management, fare collection, mobility services, trip planning, etc.).

Infrastructure owner-operators (such as WSDOT) will play a fundamental role in advancing, operating and maintaining the physical and digital infrastructure and public mobility services.

Connected and Autonomous Vehicles (CAVs) are manufactured vehicles of all classes³ and levels of automation that are operated and connected within a CAT environment. CAVs could be used in a CAT environment for purposes including, but not limited to, personal transportation, freight, transit, passenger transportation, and mobility services.⁴

The Society of Automotive Engineers (SAE International) issued J3016B⁵, a taxonomy and list of definitions for AV systems, which defines six levels of driving automation, designated as Level 0 through Level 6. Levels 0-2 describe driver support features or ADAS, while Levels 3-5 describe automated driving features. While Level 3+ AVs are still under active development and may be tested⁶ in Washington State, passenger and commercial vehicles with ADAS systems are present in an increasing number of personally-owned and commercial vehicles today. Other technology-immersed transportation modes are also now present in Washington State, including MOD and MaaS technologies

³ See: WAC 308-96A-099 <u>https://app.leg.wa.gov/WAC/default.aspx?cite=308-96A-099</u>

⁴ Definition modified from Infrastructure Owner Operators Guiding Principles for Connected Infrastructure supporting Cooperative Automated Transportation <u>https://wstc.wa.gov/Meetings/AVAgenda/Documents/documents/20190614_CATIOO_GuidingPrinciples.pdf</u>

⁵ SAE International Ground Vehicle Standard J3016_201806 <u>https://saemobilus.sae.org/content/j3016_201806</u>

⁶ Autonomous vehicles: Self-certification for testing in Washington state <u>https://www.dol.wa.gov/vehicleregistration/autonomous-self-cert.html</u>

such as ride-hailing (e.g. Uber and Lyft services), shared bicycles (e.g. Jump bikes), and motorized foot scooters (e.g. Lime scooters).

Technology is changing the transportation landscape by affecting:

- 1. The physical transportation infrastructure through Intelligent Transportation Systems (ITS),
- 2. Private and commercial vehicles through ADAS, CV, and AV technology, and
- 3. How individuals and businesses service their mobility needs through MaaS and MOD.

CAT considers all three technology thrusts that will influence the future of transportation in Washington State. CAT includes both cooperation (i.e. individuals or modes of transportation work in concert to provide travelers a range of safe, sustainable, and integrated mobility choices) and automation (i.e. some or all of the functions of mobility, such as driving, payments, traffic management systems, and enforcement are automated). Based on the direction established by the Legislature and input gathered from internal and external partners, the Infrastructure & Systems Subcommittee is developing a CAT policy framework to guide the use and application of this technology.

Status of the Draft CAT Policy Framework

Appendix 2 describes the genesis of this Draft CAT Policy Framework. The policy goal statements are the only component of this document that has been reviewed and endorsed by both the AV Work Group and the WSTC. The subcommittee will continue developing this document as part of the Action Plan for 2020 and will present components of the document to the AV Work Group in 2020. The adopted policy goal statements are:

- 1. **Organize for Innovation**: Enable organizational change that empowers officials to be flexible, accelerate decision-making, and adapt to changing technology.
- 2. *Shared Mobility*: Encourage and incentivize shared mobility, including an emphasis on high occupancy and shared modes for moving people and goods.
- 3. *Economic Vitality and Livability*: Create resilient and efficient regional networks and empower local agencies to create resilient, multimodal local networks.
- 4. *Infrastructure and Context Sensitive Street Design*: Promote durable, physical and digital networks that accommodate the movement of people and goods in ways that are appropriate for the context.
- 5. *Land Use*: Encourage land use development patterns that support multimodal connectivity to efficient local and regional networks.
- 6. *Equity*: Work with marginalized communities to increase access to desirable mobility options.
- 7. *Safety*: Increase the safety of transportation systems and infrastructure to support the safe movement of people and goods.
- 8. *Environment*: Reduce the local and cumulative environmental impacts of mobility to improve air and water quality, energy conservation and mitigate climate change.

The subcommittee will develop strategies to support each policy goal with accompanying illustrative actions. Special attention will be given to align with the Washington State Legislature's <u>transportation</u> <u>system policy goals</u> (RCW 47.04.280), which are included in Appendix 1 for reference. In the interim, the Infrastructure & Systems subcommittee provided strategies and illustrative actions for each policy goal

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statement to illustrate how the policy goals could be implemented in practice. These interim strategies and illustrative actions serve as examples and are subject to change.

Draft Definitions

Micromobility: An emerging mode that encompasses a vast collection of active transportation devices. Examples are motorized foot scooter, bicycles, electric bicycles (or eBikes), and electric skateboards. Micromobility devices are often rented via smartphone apps, a practice called MaaS.⁷

Mobility: The movement of people and goods between destinations, for private or commercial purposes, using a range of public and private modes.

Mobility as a Service (MaaS): A term most often used in Europe. As defined by the European MaaS Alliance⁸, MaaS is the integration of various forms of transport services into a single mobility service accessible on demand. To meet a customer's request, a MaaS operator facilitates a diverse menu of transport options, be they public transport, ride-, car- or bike-sharing, taxi or car rental/lease, or a combination thereof. For the user, MaaS can offer added value through use of a single application to provide access to mobility, with a single payment channel instead of multiple ticketing and payment operations.

Mobility on Demand (MOD): A term most often used in the US. As defined by the U.S. Department of Transportation, MOD is an innovative, user-focused approach which leverages emerging mobility services, integrated transit networks and operations, real-time data, connected travelers, and cooperative Intelligent Transportation Systems (ITS) to allow for a more traveler-centric, transportation system-of-systems approach, providing improved mobility options to all travelers and users of the system in an efficient and safe manner.⁹

Multimodal: More than one public or private mode of transportation.

Networks: Interconnected infrastructure that supports uninterrupted mobility.

Resilient: Ability to adapt to and reduce the magnitude and/or duration of disruptive events. There are three areas of focus for resilient infrastructure:

- 1. Incidents, such as traffic collisions or cyberattacks on digital networks.
- 2. Climate change, e.g. extreme weather events, wildfires, more intense heat and cold cycles.
- 3. Wear-and-tear from intended operational use, e.g. fatigue, rutting.

Shared Mobility: Using a shared vehicle for mobility. A shared vehicle may be a public or private transit vehicle (e.g. light rail car, bus, private shuttle) or a vehicle of any type accessed using MOD or MaaS.

Smart Growth: Smart growth is a way to build cities, towns, and neighborhoods that are economically prosperous, socially equitable, and environmentally sustainable.¹⁰

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⁷ See also Taxonomy and Classification of Powered Micromobility Vehicles: <u>https://saemobilus.sae.org/content/J3194_201911/</u>

⁸ See: <u>https://maas-alliance.eu/</u>

⁹ Definition from <u>https://www.modalliance.org/</u>

¹⁰ Definition from <u>https://smartgrowthamerica.org/</u>

Stakeholders: For the purposes of sharing information on AV technology and policies, interested stakeholders include, but are not limited to: public agencies, industry, academia, law enforcement, emergency responders, and the public.

Systems: Vehicles, infrastructure, information, communications, etc.

Interim Strategies & Illustrative Actions

The following pages provide draft strategies and illustrative actions that are place-holders while the Subcommittee works on developing strategies and illustrative actions during 2020. The place-holders were developed by a self-identified subset of volunteers from the Infrastructure & Systems Subcommittee who collectively reviewed 25 policy documents collected through a nationwide outreach in an effort to provide substantive and informative examples.

1. Organize for Innovation

Enable organizational change that empowers officials to be flexible, accelerate decision-making, and adapt to changing technology.

Number	Potential Strategy		Example Actions	Legislative Goals Addressed*	
01	Share knowledge with external partners.	a. b.	Maintain active participation in the American Association of State Highway Transportation Officials (AASHTO) CAT Coalition, which is a national network to address critical program and technical issues associated with the nationwide deployment of connected and automated vehicles on streets and highways. Identify open data needs from the private and	Economic vitality, Safety, Stewardship	
02	Adopt an organizational structure that can meet the needs of the 21 century.	a.	Establish employee positions dedicated to innovation with authority over dedicated	Stewardship	
	,,,,,,	b.	operating and capital funds and flexibility to engage partnerships. Provide access to training that prepares agency		
			staff to manage, maintain, and operate new systems and infrastructure.		
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship					

2. Shared Mobility

Encourage and incentivize shared mobility, including an emphasis on high occupancy and shared modes for moving people and goods.

Number	Potential Strategy		Example Actions	Legislative Goals Addressed*	
01	Increase the proportion of homes that are within 10 minutes of a transit service with peak hour headway of 15 minutes or less.	а. b. c. d.	Work with local transit agencies or providers and residents to identify areas where transit use is sub-optimal. Encourage transit agencies or providers to work with private partners to increase transit access. Explore opportunities for automated shuttles to feed transit stations. Only support partnerships with ride-hailing companies that demonstrate an increase in transit or other high occupancy mode ridership.	Economic vitality, Mobility, Environment, Stewardship	
02	Adapt and reuse public infrastructure as mobility needs evolve.	a. b.	Develop a plan for transitioning Park & Ride lots to other uses such as shared mobility hubs. Provide guidance on implementing Road Diets and Complete Streets that support the use of emerging modes.	Preservation, Mobility, Environment, Stewardship	
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship					

3. Economic Vitality and Livability

Create resilient and efficient regional networks and empower local agencies to create resilient, multimodal local networks.

Number	Potential Strategy	Example Actions	Legislative Goals Addressed*			
01	Incorporate emerging modes in transportation planning.	a. Provide support and technical assistance to cities and counties to adopt the <u>Mobility Data</u> <u>Specification</u> into their ordinances and/or contracts that manage private mobility providers using the public right-of-way.	Mobility, Environment, Stewardship			
		b. Provide support and technical assistance to RPOs and MPOs to include emerging MaaS and MOD modes into regional travel demand models.				
02	Use public/private partnerships.	a. Partner with telecom companies to expand the availability of high-speed internet in rural corridors.	Economic vitality			
		b. Partner with telecom companies to install fiber and wireless communications infrastructure within public rights of way.				
		c. Support local jurisdictions to pilot MaaS and MOD strategies.				
		d. Partner with MaaS providers to conduct demonstration projects that illustrate how to address specific mobility needs with MaaS.				
03	Increase the person-throughput on commuter routes.	a. Provide funding and technical assistance to local jurisdictions to implement transit signal prioritization in designated corridors.	Mobility, Stewardship, Environment			
		b. Provide funding and technical assistance to local jurisdictions to implement HOV lanes in designated corridors.				
04	Provide sustainable transportation funding.	Assess alternatives to the state gas tax.	Stewardship			
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship						

4. Infrastructure and Context Sensitive Street Design

Promote durable, physical and digital networks that accommodate the movement of people and goods in ways that are appropriate for the context.

Number	Potential Strategy	Example Actions	Legislative Goals Addressed*		
01	Promote resilient infrastructure enhancements.	 a. Pilot the use of recessed striping in areas with frequent snow plow activity. b. Develop standards for machine readable signing and striping. c. Prioritize roadway investments that support the evolving needs of the vehicle fleet over the service life of the facility. d. Partner with telecom companies to advance standards for communications infrastructure that support CAT, e.g. 5G. 	Preservation, Safety, Stewardship		
02	Preserve the 5.9 GHz wireless communication spectrum for public safety applications.	 a. Identify vehicle to everything (V2X) data sharing uses case implementations. b. Evaluate both cloud and roadside infrastructure-based V2X implementations in a technology neutral manner. c. Create synergy across jurisdictional boundaries for V2X applications (e.g. Real-time data sharing: traffic signal operations, winter operations, roadway weather, work zone operations, traveler information services, truck parking, commercial vehicle services and enforcement). 	Safety, Mobility, Stewardship		
03	Prevent cybersecurity threats.	Implement robust digital security protocols for all public infrastructure.	Preservation, Safety, Stewardship		
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship					

5. Land Use

Encourage land use development patterns that support multimodal connectivity to efficient local and regional networks.

Number	Potential Strategy		Example Actions	Legislative Goals Addressed*	
01	Promote smart growth.	a. b.	Provide support and technical assistance to cities and counties to incorporate shared mobility and transit-oriented development principles into their comprehensive plans and zoning ordinances. Provide support and technical assistance to cities and counties to adopt ordinances that reduce or eliminate parking requirements.	Economic vitality, Preservation, Environment, Stewardship	
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship					

6. Equity

Work with marginalized communities to increase access to desirable mobility options.

01Expand the number of marginalized communities involved in drafting CAT policies.Create an Equity subcommittee of the Autonomous Vehicles Work Group.Economic vitality, Mobility02Serve diverse populations.Establish performance measures for ADA accessibility for private mobility providers.Safety, Mobility03Meet the mobility needs of vulnerable populations.a. Consult with communities on their mobility needs. b. Implement an AV shuttle pilot in an urban corridor that is targeted to serve vulnerable populations.Safety, Mobility04Incorporate community health into project prioritization criteriaa. Identify best practices criteria, implementation approaches and potential barriers to incorporating a health impact assessment into the SEPA process.Economic vitality, Safety, Environment04Incorporate community health into project prioritization criteriab. Identify urban and rural projects to pilot the health impact assessment. (e.g. If FTA IMI grant funding is secured, evaluated the SAE Level 4 AV Shuttle project in Lakewood WA with Pierce Transit)Economic	Number	Potential Strategy	Example Actions	Legislative Goals Addressed*
03Meet the mobility needs of vulnerable populations.for private mobility providers.Mobility03Meet the mobility needs of vulnerable populations.a. Consult with communities on their mobility needs. b. Implement an AV shuttle pilot in an urban corridor that is targeted to serve vulnerable populations.Safety, Mobility04Incorporate community health into project prioritization criteriaa. Identify best practices criteria, implementation 	01	communities involved in drafting CAT		vitality,
populations.b.Implement an AV shuttle pilot in an urban corridor that is targeted to serve vulnerable populations.Mobility04Incorporate community health into project prioritization criteriaa.Identify best practices criteria, implementation approaches and potential barriers to incorporating a health impact assessment into the SEPA process.Economic vitality, Safety, Environmentb.Identify urban and rural projects to pilot the health impact assessment. (e.g. If FTA IMI grant funding is secured, evaluated the SAE Level 4 AV ShuttleEnvironment	02	Serve diverse populations.		-
project prioritization criteriaapproaches and potential barriers to incorporating a health impact assessment into the SEPA process.vitality, Safety, Environmentb.Identify urban and rural projects to pilot the health impact assessment. (e.g. If FTA IMI grant funding is secured, evaluated the SAE Level 4 AV ShuttleEnvironment	03		b. Implement an AV shuttle pilot in an urban corridor	
	04		approaches and potential barriers to incorporating a health impact assessment into the SEPA process.b. Identify urban and rural projects to pilot the health impact assessment. (e.g. If FTA IMI grant funding is secured, evaluated the SAE Level 4 AV Shuttle	vitality,

5) Environment, 6) Stewardship

7. Safety

Increase the safety of transportation systems and infrastructure to support the safe movement of people and goods.

Number	Potential Strategy	Example Actions	Legislative Goals Addressed*		
01	Expand the use of automated enforcement.	Install speed and red-light cameras in urban areas, where traditional enforcement methods are unfeasible (e.g. no shoulders) or where crash rates remain high	Safety, Mobility, Stewardship		
02	Promote solutions that have been demonstrated to reduce fatal and serious injury crashes.	 a. Educate the public on benefits and proper use of Advanced Driver-Assistance Systems (ADAS). b. Establish a uniform minimal level of safety assessment for the testing of automated vehicles SAE Levels 3, 4 and 5 that is consistent with other states and federal regulation in a manner that avoids a patchwork of regulation. c. Create a plan to improve roadway pavement markings in a manner consistent with current and developing ADAS technology performance. 	Economic Vitality, Safety, Mobility, Stewardship		
03	Implement Vision Zero.	Implement the Cooperative Automated Transportation strategies identified in the <u>2019 Target Zero Plan/WA</u> <u>State Strategic Highway Safety Plan</u> .	Safety, Mobility, Stewardship		
04	Use Data-Driven Safety Analysis for decision-making.	Identify systematic changes to the roadway infrastructure systems and services that increase crash performance with Advanced Driver-Assistance Systems (ADAS).	Safety, Mobility, Stewardship		
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship					

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8. Environment

Reduce the local and cumulative environmental impacts of mobility to improve air and water quality, energy conservation and mitigate climate change.

Number	Potential Strategy	Example Actions	Legislative Goals Addressed*			
01	Make it easier for individuals to plan and execute multimodal trips.	Provide support and technical assistance to cities, counties, RPOs, MPOs, and transit agencies to integrate their services (e.g. transit, parking, MaaS providers) into a smartphone app that integrates planning, scheduling, and paying for trips of different modes.	Economic Vitality, Mobility, Environment, Stewardship			
02	Decarbonize the transportation system.	a. Develop a multi-year transition plan for the complete electrification of agency fleets.	Economic Vitality,			
		 Expand the existing WSDOT electric vehicle (EV) charging infrastructure grant program that closes that gap of installing sufficient EV charging stations, e.g. every 70 miles along strategic interstate and state routes. 	Environment, Stewardship			
		c. Include electrification as a measure of effectiveness for transportation projects.				
		d. Include intersection throughput as a measure of effectiveness for transportation projects.				
		e. Measure VMT of internal combustion engine vehicles and electric vehicles separately.				
03	Expand the use of technologies proven to reduce emissions.	 Provide funding and technical assistance to local jurisdictions to implement truck signal prioritization in designated corridors. 	Economic Vitality, Environment			
		 Consider the impact to all system users through a comprehensive health impact assessment as part of the SEPA process. 				
*Transportation System Policy Goals RCW <u>47.04.280(1)</u> : 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship						

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Appendix 1: Washington state Transportation System Policy Goals (<u>RCW 47.04.280(1)</u>)

(1) It is the intent of the legislature to establish policy goals for the planning, operation, performance of, and investment in, the state's transportation system. The policy goals established under this section are deemed consistent with the benchmark categories adopted by the state's blue ribbon commission on transportation on November 30, 2000. Public investments in transportation should support achievement of these policy goals:

(a) Economic vitality: To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy;

(b) Preservation: To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;

(c) Safety: To provide for and improve the safety and security of transportation customers and the transportation system;

(d) Mobility: To improve the predictable movement of goods and people throughout Washington state, including congestion relief and improved freight mobility;

(e) Environment: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and

(f) Stewardship: To continuously improve the quality, effectiveness, and efficiency of the transportation system.

(2) The powers, duties, and functions of state transportation agencies must be performed in a manner consistent with the policy goals set forth in subsection (1) of this section.

(3) These policy goals are intended to be the basis for establishing detailed and measurable objectives and related performance measures.

(4) It is the intent of the legislature that the office of financial management, in consultation with the transportation commission, establish objectives and performance measures for the department and other state agencies with transportation-related responsibilities to ensure transportation system performance at local, regional, and state government levels progresses toward the attainment of the policy goals set forth in subsection (1) of this section. The office of financial management shall submit objectives and performance measures to the legislature for its review and shall provide copies of the same to the commission during each regular session of the legislature during an even-numbered year thereafter.

(5) A local or regional agency engaging in transportation planning may voluntarily establish objectives and performance measures to demonstrate progress toward the attainment of the policy goals set forth in subsection (1) of this section or any other transportation policy goals established by the local or regional agency. A local or regional agency engaging in transportation planning is encouraged to provide local and regional objectives and performance measures to be included with the objectives and performance measures submitted to the legislature pursuant to subsection (4) of this section.

(6) This section does not create a private right of action.

Appendix 2: Methodology to Develop the Policy Framework

WSDOT developed a draft CAT Policy Framework¹¹, which was published in November 2018. The Infrastructure & Systems Subcommittee first met and discussed a 2019 Action Plan on October 2, 2018¹². WSDOT, staff to the Infrastructure & Systems Subcommittee, prepared a <u>Draft Action Plan</u> that was circulated for comment among working members and discussed at the second Infrastructure & Systems Subcommittee meeting on February 8. 2019¹³. The Draft Action Plan identified *Activity 1: Develop policy goals and strategies with measureable illustrative actions based on regional and national "best practice" examples.* The Action Plan was revisited at the third meeting on April 26, 2019, resulting in a <u>Final Action Plan</u>.

During 2019, the subgroup of volunteers and WSDOT staff did the following:

- Reviewed local, state, regional, and federal policy frameworks and related documents to identify elements which should be incorporated into a Washington State CAT Policy Framework.
- Using the WSDOT CAT Policy Framework as a starting point, developed and refined eight policy goal statements to drive the development of subsequent strategies and illustrative actions to implement each policy goal.
- <u>Presented the eight policy goal statements</u> to the Infrastructure & Systems Subcommittee at the fifth meeting on August 12, 2019 to receive input from the whole Subcommittee¹⁴.
- Addressed the action items and <u>presented the eight refined policy goal statements for vote</u> by the Infrastructure & Systems Subcommittee at the sixth meeting on September 9, 2019¹⁵.

WSDOT incorporated the voting outcomes of the Infrastructure & Systems Subcommittee, and <u>presented the eight refined policy goal statements</u> to the Executive Committee on September 24, 2019. The subcommittee presented a recommendation to adopt the eight revised policy goal statements to enable the subcommittee to continue the work on the CAT policy framework and develop specific strategies. The subcommittee also recommended the development of a statewide CAT/AV policy framework which would integrate these policy goals along with policy goals developed by other subcommittees. The motion to adopt both recommendations carried.¹⁶ The Infrastructure & Systems Subcommittee presented the eight adopted policy goal statements to the WSTC on October 16, 2019 and made the following recommendation to the WSTC:

- Adopt the eight policy goals to enable the Infrastructure & Systems Subcommittee to continue the work on the CAT policy framework and, as a next step, develop specific strategies.
- Adopt the policy goals and encourage the development of a state CAT/AV policy framework that would integrate these policy goals along with policy goals developed by other subcommittees.

Development of these policy goals is the first in a multi-step approach, which will subsequently include developing strategies and illustrative actions based on local, regional and national "best practice" policy examples.

¹¹ <u>https://www.wsdot.wa.gov/sites/default/files/2019/01/22/Cooperative-Automated-Transportation-Policy-Framework-for-AASHTO-20181126.pdf</u>

 ¹² Meeting Minutes <u>https://wstc.wa.gov/Meetings/AVMinutes/Oct2/Oct2MeetingMinutes.pdf</u>
 ¹³ Minutes

https://wstc.wa.gov/Meetings/AVAgenda/Documents/documents/20190208_AVInfrastructureSystemsSubcommitteeMtg_minutes.pdf

¹⁴ Meeting minutes <u>https://wstc.wa.gov/Meetings/AVAgenda/Documents/documents/20190812_AVInfrstSubCom_Minutes.pdf</u>

¹⁵ Meeting minutes <u>https://wstc.wa.gov/Meetings/AVAgenda/Documents/documents/20190909_InfSys_minutes.pdf</u>

¹⁶ Meeting summary <u>https://wstc.wa.gov/Meetings/AVAgenda/Documents/20190926 ExecComm MeetingSummary.pdf</u>

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- 9. **Organize for Innovation**: Enable organizational change that empowers officials to be flexible, accelerate decision-making, and adapt to changing technology.
- 10. *Shared Mobility*: Encourage and incentivize shared mobility, including an emphasis on high occupancy and shared modes for moving people and goods.
- 11. *Economic Vitality and Livability*: Create resilient and efficient regional networks and empower local agencies to create resilient, multimodal local networks.
- 12. *Infrastructure and Context Sensitive Street Design*: Promote durable, physical and digital networks that accommodate the movement of people and goods in ways that are appropriate for the context.
- 13. *Land Use*: Encourage land use development patterns that support multimodal connectivity to efficient local and regional networks.
- 14. *Equity*: Work with marginalized communities to increase access to desirable mobility options.
- 15. *Safety*: Increase the safety of transportation systems and infrastructure to support the safe movement of people and goods.
- 16. *Environment*: Reduce the local and cumulative environmental impacts of mobility to improve air and water quality, energy conservation and mitigate climate change.

The WSTC reviewed and voted to endorse the recommendation. Discussion included:

- Request for information on the subcommittee members that voted against the policy goal statements: What organizations, what were the objections, and have their positions changed.
 - The City of Bellevue and the Discovery Institute indicated general support for the direction of the policy goals, but requested refinement of specific goal statement wording to better meet the goal's intent.
 - The Washington Policy Center did not support many of the policy goals and shared concerns about the process used by the subcommittee to develop the policy goal statements. Major revisions were requested of almost all policy goal statements.
 - The Infrastructure & Systems subcommittee made revisions to the policy goal statements based on this feedback and to address the direction of the majority of voting respondents. These revisions were made prior to the formal recommendation presented to the Executive Committee on September 26th.
- Clarification on Policy Goal Statement #1 "Organizing for Innovation" How individual entities and the State as a whole can organize, structure, operate and collaborate to better prepare for AVs and evolving policy.

The Infrastructure & Systems Subcommittee further recommended that it develop statewide CAT/AV Policy Framework that would integrate the WSDOT CAT policy goals along with policy goals developed by other subcommittees. The WSTC endorsed this recommendation.