



Infrastructure & Systems Subcommittee

Cooperative Automated Transportation (CAT) Draft Policy Framework

Working Document

May 11, 2020

POST-WORKSHOP REVISED STRATEGIES AND ACTIONS

Acronyms and Terms Referenced in Strategies & Actions:

Term	Definition
5G	Fifth generation technology standard for cellular networks
AAMVA	American Association of Motor Vehicle Administrators
AASHTO	American Association of State Highway Transportation Officials
ADA	Americans with Disabilities Act
ADAS	Advanced Driver-Assistance Systems
AV	Automated Vehicle
BAT	Business and Transit
CAT	Cooperative Automated Transportation
CCTV	Closed Circuit Television
CRCS	Connected Road Classification System
GHSA	Governors Highway Safety Association
GIS	Geographic Information System
HOT	High Occupancy Tolling
HOV	High Occupancy Vehicles
ISO	International Organization for Standardization
IT	Information Technology
MaaS	Mobility-as-a-Service
MOD	Mobility on Demand
MPO	Municipal Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program
OEM	Original Equipment Manufacturer
PRA	Public Records Act
RCW	Revised Code of Washington
RPO	Regional Planning Organization
SAE	Society of Automotive Engineers
SEPA	State Environmental Policy Act
TNC	Transportation Network Company
V2X	Vehicle-to-Everything
VMT	Vehicle Miles Traveled
WAC	Washington Administrative Code

1. Organize for Innovation

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
<p>*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship</p>			
01	Share knowledge with external partners.	<p>1-A) 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. <u>Encourage sharing of materials and updates at regular intervals through online or in-person forum(s).</u></p> <p>1-B) Identify open data needs from the private and public sector and create a plan to address the gaps.</p> <p>1-B) Maintain active participation in the Governors Highway Safety Association (GHSA) and the Association of American Motor Vehicle Administrators (AAMVA), who have autonomous vehicle working groups and are striving to develop standards for issues related to AVs. <u>Encourage sharing of materials and updates at regular intervals through online or in-person forum(s).</u></p> <p>1-C) Join the 5G Automotive Association to monitor industry activity. <u>Encourage sharing of materials and updates at regular intervals through online or in person forum(s).</u></p> <p>1-D) Identify a list of national organizations, workgroups, committees, etc. to intentionally partner with and engage in a continued meaningful way with a list of public and private organizations that should consider engaging in each opportunity. <u>Encourage sharing of materials and updates at regular intervals through online or in-person forum(s).</u></p>	Economic Vitality, Safety, Stewardship
02	Adopt an organizational structure that can meet the needs of the next ten years.	2-A) Establish employee positions dedicated to innovation with authority over dedicated operating and capital funds and flexibility to engage partnerships.	Stewardship

Commented [Au1]: 01-01-B moved to 01-05-A

Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<p>2-B) Provide access to training that prepares agency staff to plan, program, manage, maintain, and operate new systems and infrastructure.</p> <p>2-C) Delineate the responsibilities between federal, state, MPO and local agencies. Identify the responsible party for implementing the policy.</p> <p>2-D) Identify a list of core technical competency skillsets that will be needed for planning, managing, and operating the future transportation system, and identify existing training opportunities and gaps to address those needs.</p> <p>2-E) Identify organizational areas (such as asset management or information technology) that will be impacted and need to adapt within a CAT future.</p>	
03	<p>Restructure agency budgets to most effectively reduce safety-related societal costs <u>encourage innovative culture and adaptation to changing technology.</u></p>	<p>3-A) Increase spending on <u>Identify and prioritize safety related transportation expenditures and initiatives that embrace CAT technologies</u> to reduce societal costs of crashes.</p>	<p><u>Safety, Stewardship</u></p>
04	<p>Use agency performance measures to prioritize technology investments.</p>	<p>4-A) Create a framework to screen technology investments based on how they contribute to agency performance measures.</p> <p>4-B) Create a discretionary fund to procure technologies that meet the performance measure criteria.</p>	<p><u>Stewardship</u></p>
05	<p>Develop and maintain CAT data security, privacy, and governance policies and standards.</p>	<p>5-A) <u>Identify open data needs from the private and public sector and create a plan to address the gaps.</u></p> <p>5-BA) Identify and collect <u>CAT</u> data from private and public sector on data.wa.gov.</p> <p>5-C) <u>Identify data stewardship principles for data collected, stored, processed, or disseminated for CAT-related initiatives, programs, or sources.</u></p> <p>5-DB) Update/develop data standards, specifications, and policies that support connected infrastructure. This includes clarifications on who owns what data, who can access it, what it is used for, etc. Policies should enable public-private data sharing that protects trade secrets and individual privacy.</p> <p>5-EC) Implement robust administrative, technical, and physical security protocols for all public infrastructure.</p> <p>5-FB) Evaluate, plan, and provide guidance for the IT security needs and threat response plans for transportation and local agencies.</p>	<p><u>Stewardship</u></p>

Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<p>5-GE) Dedicate IT or IT positions to cybersecurity.</p> <p>5-HF) The System Technology and Data Security Subcommittee. Lead the development of a comprehensive cybersecurityConduct a workshop with a comprehensive list of public and private subject matter experts to identify near-term steps to address existing cybersecurity gaps for <u>CAT-related</u> transportation systems and services.</p> <p>5-G) Identify data stewardship principles5-I) Produce a strategy document with recommendations for the state on shared <u>M</u>mobility <u>D</u>data Standards (<u>MDS</u>), storage, and management. This document would involve a diverse group of stakeholders from the public and private sectors in evaluating existing data standards (including <u>ged</u> the Mobility Data Specifications (MDS)), researching data management best practices, and working towards forming strong data sharing partnerships.</p>	

2. Shared Mobility

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship			
01	Increase the proportion of homes that are within 10 minutes <u>(walk or shared ride)</u> of a transit service with peak hour headway of 15 minutes or less.	<p>1-A) Work with local transit agencies or providers and residents to identify areas where transit use is sub-optimal.</p> <p>1-B) Encourage transit agencies or providers to work with private partners to increase transit access.</p> <p>1-C) Explore opportunities for automated shuttles to feed transit stations.</p> <p>1-D) Support partnerships with ride-hailing companies that demonstrate an increase in transit or other high occupancy mode ridership.</p> <p>1-E) Develop policies that encourage ride-hailing companies to promote increase in transit.</p> <p>1-EF) A Washington city or unincorporated area that allows shared electric scooters or e-bikes, and their public transit provider will pilot the remote and/or autonomous repositioning of those devices electric scooters or e-bikes to improve connections to transit.</p> <p>1-F) Identify a list of existing planning tools for assessing the connection between modal options and housing.</p>	Economic Vitality, Mobility, Environment, Stewardship
02	Adapt and reuse public infrastructure as mobility needs evolve.	<p>2-A) Analyze the historical and projected usage of existing Park and Ride lots and identify underutilization issues and potential barriers to other uses, such as shared mobility hubs.</p> <p>2-BA) Develop a plan for transitioning <u>consistently underutilized Park & Ride</u> lots to other uses such as shared mobility hubs.</p> <p>2-B) Provide guidance on implementing Road Diets and Complete Streets that support the use of emerging modes.</p> <p>2-C) Provide guidance to local agencies and professionals on <u>how to evaluate</u> the reutilization of road space that to support the use of emerging</p>	Economic Vitality, Preservation, Mobility, Environment, Stewardship

Commented [Au2]: 02-01-E combined with 02-03-A, action to incentivize TNCs to promote increase in transit (incentive may be financial, permitting, opportunities to help shape policies, etc.)

Commented [Au3]: 02-02-B combined with 02-02-C

Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<p>modes, such as through Road Diets or Complete Streets.</p> <p>2-D) Evaluate the transit grid to work toward better access and connections in the system, and to strengthen it where it is the weakest.</p> <p>2-E) Provide funding resources and technical assistance to local jurisdictions to implement Business Access and Transit (BAT) lanes in designated corridors.2-F) Access the historical and projected usage of existing Park & Ride lots, identify underutilization issues, and potential barriers to others uses such as shared mobility hubs.</p>	
03	Identify a list of existing planning tools for assessing the connection between modal options and housing.	3-A) Identify, Evaluate and communicate the list of GIS based tools that can conduct a macro level planning analysis using publicly accessible data (e.g. Sugar Access, Census Track and Streetlight Data).	
034	Explore methods to fund resource and support shared mobility pilot projects/initiatives . Funding Initiatives should cover a number of use cases and communities, not only urban.	<p>3-A) Further define and detail Develop a list of methods to incentivize shared mobility. The list should include:</p> <ul style="list-style-type: none"> How the method incentivizes shared mobility (e.g. use case) Supported area(s) (e.g. city, county, region) Potential public or private partners needed to implement and support the initiative Implementation timeline Estimated implementation and operations costs Potential funding sources (e.g. Grants) to support implementation and/or operations <p>3-B) Identify, evaluate, and communicate the list of GIS-based tools that can conduct a macro level planning analysis using publicly accessible data (e.g. Sugar Access, Census Track and Streetlight Data) to identify opportunities to increase access to and usage of shared mobility options.</p> <p>3-C) Explore opportunities to expand vanpool services, including the electrification and/or automation of vanpools.</p> <p>3-D) Develop vehicle occupancy detection systems to measure efficiency of all vehicles, including freight, in managed lanes.</p>	Mobility, Environment, Stewardship
045	Embrace mode-neutral capacity measures.	54-A) Define "shared mobility" quantitatively in terms of moving people and goods. Establish mode-neutral capacity measures that calculate capacity for all modes, including active modes and transit.	Mobility, Environment, Stewardship

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Commented [Au5]: 02-03 strategy moved to an action, 02-01-F

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Strategy Number	Strategy	Action	Legislative Goals Addressed*
		54-B) Identify under-utilized facilities that can increase person-throughput, such as with managed lanes and road diets.	
056	Encourage high adoption of Shared Mobility by enhancing the commuter experience and reducing costs from shared, automation, and electrification.	65-A) Measure commuter experience metrics to identify areas for enhancement. Metrics include, but are not limited to, time to destination and number of changeovers/hops to destination.	Economic Vitality, Mobility, Environment, Stewardship

3. Economic Vitality and Livability

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
<p>*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship</p>			
01	Incorporate emerging modes in transportation planning.	<p>1-A) Provide support—resources and technical assistance to cities and counties to adopt <u>appropriate mobility data standards (such as the Mobility Data Specification)</u> into their ordinances and/or contracts that manage private mobility providers using the public right-of-way.</p> <p>1-B) Provide support—resources and technical assistance to RPOs and MPOs to include emerging MaaS and MOD modes into regional travel demand models.</p> <p>1-C) Develop a public-private partnership to support and secure funding for<u>resource</u> a research project that examines how the Public Records Act (PRA) may be updated to:</p> <ul style="list-style-type: none"> • Protect trade secrets for private mobility providers • Protect personally identifiable information for users • Allow for data sharing between public and private entities that advances mobility, safety, equity, and other public interest outcomes; while involving a diverse set of stakeholder and partners. <p>1-D) Produce a strategy document with recommendations for the state on shared Mobility Data Standards (MDS), storage, and management. This document would involve a diverse group of stakeholders from the public and private sectors in evaluating existing data standards (included the Mobility Data Specifications), researching data management best practices, and working towards forming strong data sharing partnerships.</p> <p>1-E) Evaluate and assess the experience of cities and counties that have adopted <u>mobility data standards (such as the Mobility Data Specification)</u> into their</p>	Economic Vitality, Mobility, Environment, Stewardship

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Strategy Number	Strategy	Action	Legislative Goals Addressed*
		ordinances and/or contracts that manage private mobility providers using the public right-of-way.	
02	Use public/private partnerships.	<p>2-A) Partner with telecom companies to expand the availability of high-speed internet in rural corridors.</p> <p>2-B) Research ways to partner with telecom companies to install fiber and wireless communications infrastructure within public rights of way.</p> <p>2-C) Support local jurisdictions to pilot MaaS and MOD strategies.</p> <p>2-D) Partner with MaaS providers to conduct demonstration projects that illustrate how to address specific mobility needs with MaaS.</p> <p>2-E) Partner with other agencies and private companies to ensure dark fiber is included in as much of the infrastructure as possible.</p>	Economic Vitality, Stewardship
03	Increase the person-throughput on commuter routes.	<p>3-A) Provide funding—resources and technical assistance to local jurisdictions to implement transit signal prioritization in designated corridors.</p> <p>3-B) Provide funding—resources and technical assistance to local jurisdictions to implement managed lanes (e.g. BAT or HOT) in designated corridors.</p>	Economic Vitality , Mobility, Stewardship, Environment
04	Provide sustainable transportation funding resources for CAT initiatives .	<p>4-A) Assess alternatives to the state gas tax for sustainable state transportation funding.</p> <p>4-B) Evaluate potential local, state, regional, and federal grant funding and resources for CAT initiatives, demonstrations, and deployments.</p>	Economic Vitality , Stewardship
05	Encourage coordination and communication between cities and agencies for efficient regional mobility.	5-A) Explore the inter-agency relationships which may impact and influence potential mobility policies, programs, and efforts.	Economic Vitality , Mobility
06	Coordinate with freight and local services.	6-A) Identify how—methods for local entities to coordinate with public agencies, and private industries to identify needs for technology strategies to support will need to adapt for the movement of goods and services.	Economic Vitality , Mobility

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.

Strategy Number	Strategy	Action	Legislative Goals Addressed*
<p>*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship</p>			
01	Promote resilient and maintainable infrastructure enhancements.	<p>1-A) Evaluate the performance of existing recessed striping in areas with frequent snowplow activity in relation to current ADAS machine vision and near-term connected vehicle and infrastructure technologies.</p> <p>1-B) Develop Evaluate and adopt standards for machine readable signing and striping. Standards may be adopted from Manual on Uniform Traffic Control Devices (MUTCD), other industry standards, or through development of standards specific to the state.</p> <p>1-C) Prioritize roadway investments that leverage or support the ADAS Technologies that are available on existing and near future vehicle fleets existing or near future connected or automated technologies, based on the benefit verses cost for the implementation and maintenance, taking facility lifecycle into consideration.</p> <p>1-D) Partner with telecom companies to advance standards for communications infrastructure that support CAT, e.g. 5G.</p> <p>1-E) Classify roadways and corridors to identify areas for improvement to support connected and automated technologies. Classification should include levels of classification (e.g. needs upgrade, meets, or exceeds needs for connectivity and automation). Use the NCHRP 20-24(112) Connected Road Classification System (CRCS) Framework to support this initiative.</p> <p>1-E) Prioritize Ccorridors and/or Rroadway types for implementation of associated strategies and actions CAT technologies, based on results of Connected Road Classification System initiative (<i>action 03-01-E</i>). Prioritization should take facility function and service life into consideration.</p> <p>1-G) Create a plan to improve roadway pavement markings in a manner consistent with current and</p>	Preservation, Safety, Stewardship

Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<p>developing ADAS technology performance, and in compliance with MUTCD.</p> <p><u>1-H) Assess infrastructure elements (such as signing, striping, and potential need for roadside communication equipment) to identify areas for improvement or replacement to enable and support the operation of automated and connected technologies and solutions. Assessment should include the current state of the element (e.g. good, fair, poor) and maintenance and upgrade cycles.1-F) Join the 5G Automotive Association to monitor industry activity.</u></p>	
02	<p>Preserve <u>and utilize</u> the 5.9 GHz wireless communication spectrum for public safety applications.</p>	<p>2-A) Identify vehicle to everything (V2X) data sharing uses case implementations.</p> <p>2-B) Evaluate both cloud and roadside infrastructure-based V2X implementations in a technology neutral manner.</p> <p>2-C) Plan for a multi-agency connected vehicle data platform to collect and share <u>CV-connected vehicle</u> information from infrastructure, moving vehicles, multimodal and <u>3rd</u> parties so multiple users (OEMs, private sector, and public sector) can access and turn the data into useful information. <u>Platform should only include data feeds appropriate for sharing with the public.</u></p> <p>2-D) Assess how V2X technologies equitably account for the needs of all modes (e.g. Start with Signalized Intersections and then identify other use cases such as mid block crossings, bike lanes, etc.)</p>	<p>Safety, Mobility, Stewardship</p>
03	<p>Ensure existing statutes do not restrict infrastructure readiness.</p>	<p>3-A) Audit current <u>laws (Revised Code of Washington (RCW) and rules (Washington Administrative Code (WAC))</u> to identify outdated, contradictory, or restrictive policy prescriptions.</p>	<p><u>Stewardship</u></p>

Strategy Number	Strategy	Action	Legislative Goals Addressed*
04	Advance agency -curb space management practices to support emerging modes.	4-A) Participate as a panel member of the ISO standards development effort (e.g. ISO/PWI TR 4448) for use of curb space. 4-B) Work with partners, <u>including local government</u> , to develop clear curb management regulations that compliment connected vehicles and infrastructure.	<u>Preservation</u> , <u>Mobility</u>
05	Use resiliency as a performance measure to prioritize projects.	5-A) Define safety and operational resiliency quantitatively. Use fault tree analysis <u>Leverage data and analytical tools</u> to identify resiliency gaps and use it as a project prioritization tool. 5-B) Apply Fault Tree Analysis <u>Leverage data and analytical tools as to</u> new construction projects are being considered to determine how they mitigate safety and operational resiliency issues.	<u>Preservation</u>

5. Land Use

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
<p>*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship</p>			
01	Promote smart growth.	1-A) Provide support—resources and technical assistance to cities and counties local jurisdictions to incorporate shared mobility and transit-oriented communities—development principles into their comprehensive plans and zoning ordinances. 1-B) Provide support—resources and technical assistance to cities and counties that encourage innovative parking management policies, such as to adopt ordinances that reduce or eliminate parking requirements, for main mobility routes, in a way to that support desired, equitable mode shift, not a blanket reduction or elimination of parking. 1-C) Conduct land use scenario modeling to identify and evaluate the impacts connectivity, automated, shared mobility, and electrification have on smart land use development.	Economic Vitality, Preservation, Mobility, Environment, Stewardship

6. Equity

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
<p>*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship</p>			
01	Expand the number of marginalized communities involved in drafting CAT policies.	1-A) Create an Equity subcommittee of the Autonomous Vehicles Work Group.	Economic Vitality, Safety, Mobility
02	Serve diverse populations.	2-A) Establish performance measures for ADA accessibility for private mobility providers. 2-B) Use Evaluate private mobility provider solutions, including but not limited to transportation network companies (TNCs), as a method of supplementing Fixed Route Transit and either replacing or supplementing Dial-a-Ride services. 2-C) Ensure connected automated transportation works for vulnerable populations outside of urban areas. 2-D) Ensure Seek out and support solutions that enable the development of connected automated transportation includes solutions for human services transportation. 2-E) Define accessibility criteria for connected and automated transportation solutions (including but not limited to TNCs, micromobility, supplemental transit services, etc.). Accessibility criteria shall be developed in coordination with the Washington AV Work Group Health & Equity Subcommittees and its diverse membership to identify accessibility criteria for marginalized, disabled, disadvantaged, and underserved populations. 2-F) Establish a path forward to apply accessibility criteria to pilot and deployment projects and performance measures for publicly funded CAT initiatives. 2-G) Develop training and guidance for Transportation Network Companies (TNCs) to enable their services to comply with Americans with Disabilities Act (ADA).	Safety, Mobility

Strategy Number	Strategy	Action	Legislative Goals Addressed*
03	Meet the mobility needs of vulnerable populations.	<p>3-A) Consult with marginalized communities on their mobility needs.</p> <p>3-B) Prioritize and fund provide resources for marginalized communities’ mobility needs.</p> <p>3-C) Implement an AV shuttle pilot in an urban corridor that is targeted to serve vulnerable populations.</p> <p>3-D) Provide funding resources and technical assistance to transit agencies and local governments to make alternative desirable mobility options available to historically underserved populations. Set up measurement benchmarks to quantify the progress in providing accessibility to alternative options.</p> <p>3-E) Identify and address barriers to using active modes, such as bike shop deserts or lack of basic mechanics and maintenance knowledge.</p> <p>3-F) Identify and address barriers to shared mobility mode use such as inadequate lighting, long headways, and other issues that make users (especially women) fear for their safety. (Example: Strategies like CCTVs are preferred by transit users.)</p>	Safety, Mobility
04	Incorporate community health into project prioritization criteria.	<p>4-A) Identify best practices criteria, implementation approaches and potential barriers to incorporating a health impact assessment into the SEPA process.</p> <p>4-B) Identify urban and rural projects to pilot the health impact assessment. (e.g. If FTA-IMI Federal Transit Administration Integration Mobility Innovation grant funding is secured, evaluated the SAE Level 4 AV Shuttle project in Lakewood WA with Pierce Transit).</p>	Economic Vitality, Safety, Environment
05	Supplement existing fixed route and dial-a-ride transit with shared mobility providers accessed through MOD or MaaS.	5-A) Develop training and certifications for Transportation Network Companies (TNCs) to enable their services to comply with Americans with Disabilities Act (ADA).	

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7. Safety

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

Strategy Number	Strategy	Action	Legislative Goals Addressed*
*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship			
01	Expand Explore the use of automated enforcement to supplement and/or enhance traditional enforcement methods.	1-A) Identify a list of potential use cases with supporting implementation criteria for all areas that are candidates for automated enforcement. At a minimum, evaluate speed, red-light cameras, congestion management, tolling, and HOV occupancy enforcement. Considerations should be given to 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 the potential to reduce fatal and serious injury crashes.	2-A) Educate the public on benefits and proper use of Advanced Driver Assistance Systems (ADAS). 2-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. 2-C) Create a plan to improve roadway pavement markings in a manner consistent with current and developing ADAS technology performance, and in compliance with Manual on Uniform Traffic Control Devices (MUTCD). 2-AD) Enact Support the development of safety standards for connected autonomous vehicles and automated technologies that ensure people who drive, ride, walk, bike, and roll can safely travel in the right of way, through participation in national committees and standards development initiatives. 2-B) Evaluate knowledge competency requirements and education needs for ADAS-equipped vehicles, and the potential impact on current driver training, testing, and licensing regulations and rulemaking. 2-C) Implement Develop a plan to implement the Cooperative Automated Transportation strategies identified in the 2019 Target Zero Plan/WA State Strategic Highway Safety Plan. For each strategy listed, Implementation Plan should include:	Economic Vitality, Safety, Mobility, Stewardship

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Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<ul style="list-style-type: none"> Lead entity/agency Resources needed to implement Anticipated implementation timeline 	
03	Implement Vision Zero.	3-A) Implement the Cooperative Automated Transportation strategies identified in the 2019 Target Zero Plan/WA State Strategic Highway Safety Plan.	Safety, Mobility, Stewardship
034	Use gathered CAT data and Data-Driven Safety Analysis for decision-making.	<p>3-A) Identify systematic changes to the roadway infrastructure systems and services that reduce crashes with Advanced Driver-Assistance Systems (ADAS).</p> <p>3-B) Test new methods for safety analysis (i.e. video near-miss safety-analytics, using 3rd party moving vehicle data with hard braking/hard acceleration, etc.) to understand hot spots and corridor safety needs.</p> <p>3-C) <u>Develop data gathering and integration methods in order to measure the safety impact of ADAS and automated vehicles on reducing fatalities and serious injuries.</u></p>	Safety, Mobility, Stewardship
045	Develop systems which can provide the most positive impact to safety within transit/mobility.	<p>54-A) Identify and detail specific safety systems for focus.</p> <p>54-B) Create/Support the piloting and deployment of machine readable signs to initiate AV notifications, warnings, or vehicle controls /safe shutdowns for roadways with AV restrictions (i.e. no markings, weight restrictions, surface changes, etc.).</p>	Safety, Mobility

Commented [Au13]: 07-03-A moved to 07-02-C

Strategy Number	Strategy	Action	Legislative Goals Addressed*
05	Embrace emerging and evolving transportation technologies to support a culture of safety.	<p>5-A) Educate the public on the benefits and proper usesafety limitations of Advanced Driver-Assistance Systems (ADAS) that may affect safe driving behaviors.</p> <p>5-B) Educate the public on how and where level 3, 4, and 5 AVs will be deployed, how they operate, and what to expect from AVs, through coordination with public agencies, consumer associations, insurance companies, vehicle dealers, etc.</p>	Safety
06	Create a regulatory environment that supports the safe testing and deployment of connected, advanced, and automated vehicles and related technologies.	<p>6-A) Audit current laws (Revised Code of Washington; RCW) and rules (Washington Administrative Code; WAC) to identify outdated, contradictory, or restrictive policy prescriptions.</p> <p>6-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.</p>	Safety, Stewardship

8. Environment

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

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*Transportation System Policy Goals RCW 47.04.280(1): 1) Economic Vitality, 2) Preservation, 3) Safety, 4) Mobility, 5) Environment, 6) Stewardship			
01	Make it easier for individuals to plan and execute multimodal trips.	1-A) Provide support—resources 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 mechanism, such as a smartphone app, that integrates planning, scheduling, and paying for trips of different modes.	Economic Vitality, Mobility, Environment, Stewardship
02	Explore how CAT technologies can support Washington State Governor's decarbonization goals and initiatives Decarbonize the transportation system.	<p>2-A) Develop a multi-year transition plan for the conversion of agency fleets to non-carbon-polluting fueled vehicles.</p> <p>2-B) 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.</p> <p>2-C) Include electrification as a measure of effectiveness for transportation projects.</p> <p>2-D) Include person throughput as a measure of effectiveness for mobility projects.</p> <p>2-A) Develop a plan to identify integration points and opportunities to support decarbonization goals and initiatives. Plan should include:</p> <ul style="list-style-type: none"> List of decarbonization goals and related initiatives How varied CAT technologies and tools can impact each goal/initiative Lead agencies/entities to support integration of CAT technology/tool Suggested implementation plans and timelines <p>2-BE) Identify methods, tools, and techniques to measure VMT of internal combustion engine vehicles and electric vehicles separately.</p> <p>2-F) Include increased mobility as a measure of effectiveness for transportation projects.</p>	Economic Vitality, Environment, Stewardship

Commented [Au14]: Strategy 02 "decarbonize the transportation system" and related actions consolidated to focus on how CAT technologies and tools can be used to support the Governor's decarbonization goals, with new action 08-02-A.

Following actions removed for consolidation:
08-02-A
08-02-B
08-02-C
08-02-D
08-02-F

Strategy Number	Strategy	Action	Legislative Goals Addressed*
		<p>2-CG) Evaluate the potential to Rreduce greenhouse gas emissions by using <u>piloting fully electric</u> AVs as a complement to transit and active transportation.</p> <p>2-DH) Pilot more accurate ways of measuring greenhouse gas emissions using moving vehicle data (i.e. connected vehicle) <u>to improve accuracy of data</u> for transportation planning & analysis projects.</p>	
03	Expand the use of technologies proven to reduce emissions.	<p>3-A) Provide funding resources and technical assistance to local jurisdictions to implement truck signal prioritization in designated corridors.</p> <p>3-B) Consider the impact to all system users through a comprehensive health impact assessment as part of the SEPA process <u>applied to transportation projects with CAT technology elements</u>.</p>	Economic Vitality, <u>Mobility</u> , Environment
04	Develop financial incentives for higher occupancy vehicles (pricing policy).	4-A) Develop vehicle occupancy detection systems to measure efficiency of all vehicles.	

Commented [Au15]: 08-04-A moved to 02-03-D