

Topics to Potentially Be Addressed Under Newly Merged Committees, Coordinating Councils, or Subcommittees

The new volunteer structure involves some consolidation and rearranging of committees to better address critical issues and promote coordination and collaboration. It does not intend to imply that some topics are no longer important. Many topics that are not obvious from the titles of the standing committee are still covered within the scope of a new or merged committee, by one of the new coordinating councils, or will be covered in a subcommittee or joint subcommittee. The list of topics below are examples of topics that are likely to be addressed through one or more of these mechanisms. The proposed plan to provide more structure and visibility to topical subcommittees and joint subcommittees will help make the work of these subcommittees better known and more accessible.

- Analysis, modeling, forecasting, sensing, measuring, and evaluation technologies and methods such as statewide travel demand, transit, freight, logistics, networks, infrastructure elements, traffic simulation models and applications, traffic flow modeling for connected and automated vehicles, crowd flow dynamics, modeling, and management, pedestrian modeling and simulation; weigh-in-motion, computer image technology for pavement evaluation, interactive visual simulation; travel behavior and methods, such as time use and activity patterns, route choice, spatio-temporal behavior, international travel behavior; surveys for various purposes, such as household travel, freight, stated response, transit, census
- Automation in highways, marine, transit, aviation, such as various impacts of autonomous vehicles, vessels, unmanned aircraft and aerial Systems issues; data acquisition with such systems, pedestrian interactions
- Aviation topics such as commercial space transportation, air cargo, aviation geographic information systems and data, helicopters, business aviation, commercial aviation, light commercial and general aviation
- City, rural, and mega-region transportation issues
- Data and IT topics such as national transportation data requirements and programs, data privacy, security and protection policy, data on passenger travel, roadway safety, urban big data, bicycle and pedestrian data, archived data user service, Building Information Model (BIM) for Infrastructure, Truck and bus data, Data for Transportation Operations, etc.
- Environmental issues such as noise and vibration associated with highway, rail, aviation; regional and project-level air quality analysis
- Equity and social issues such as community impact assessment, aging, gender, and transport, Disadvantaged Business Enterprises, environmental justice, tribal safety and historical and archeological preservation
- Freight topics such as intermodal freight terminal design and operations, truck size and weight, transport of energy products
- Geotech topics such as Rockfall Management, Landslides, Geophysics, Unbound Granular Materials, engineering behavior of unsaturated geomaterials, subsurface soil-structure interaction, subsurface drainage, frost heave and spring load, geospatial control
- History of transportation
- Human factors topics such as human factors for infrastructure design, vehicle systems, traveler information, CAV
- Infrastructure design and construction topics such as sustainable Infrastructure, stormwater, utilities, geospatial data acquisition technologies, structural fiber reinforced polymers, components and requirements of asphalt mixtures, concrete materials and placement techniques, nanotechnology for materials, information systems in construction management, quality management, alternative project delivery; bridge aesthetics, analysis, NDE, buried bridges, sustainable bridges, underwater structures inspection and maintenance, bridge steel coatings, structural health monitoring, safety and security of bridges and structures, bridge life cycle cost analysis; pavement interlayer systems, pavements and urban climate, pavement modeling, back-calculation of pavement layer moduli, design and construction of roller compacted concrete pavements, integration of asphalt paving mixture characteristics with flexible pavement structural design
- Institutional and knowledge management topics such as training, education & technology transfer; transportation research thesaurus; international coordination; library and information science

- New and emerging mobility options such as shared-use vehicle public transport systems, ridesharing solutions, on-demand transportation, emerging vehicles for low speed transportation
- Operations and maintenance topics such as operational effects of geometrics, maintenance and operations personnel, sealants and fillers for joints and cracks, corrosion, signing and marking materials, management handbook, freeway simulation, freeway operations research needs, freeway operations concepts, highway traffic monitoring, environmental maintenance, winter maintenance methods and materials, equipment, training, pavement management systems, highway and transit integration, traffic signal operations, highway and transit integration, regional traffic signal operations, active traffic management, uninterrupted flow, interrupted flow, two-lane highways, signalized and unsignalized intersections, urban streets, interchanges, traffic structures; traffic signal systems simulation, technologies, timing, standards, multimodal systems, asset management, education; travel time speed and reliability; work zone topics such as positive protection, simulation
- Performance topics in various modes and functions, such Analysis methods and tools, safety, management and operations
- Planning and programing topics such as statewide multimodal planning; metropolitan policy, planning, and processes; transportation planning for small and medium-sized communities; transportation programming and investment decision-making; public involvement in transportation; transportation and land development; planning for bicycles and pedestrians, for operations, for safety; planning and preliminary engineering
- Pricing issues for congestion management, parking, public transportation, other modes and cross-modal, mileage-based approaches to revenue
- Public transportation topics such as automated transit and bus systems, paratransit, commuter rail transportation, transit capital replacement, transit state of good repair
- Rail topic such as shared rail corridors and facilities, diesel multiple unit trains, streetcars, international developments in light rails transit, intercity passenger rail intermodal interface, socioeconomic and financial aspects of intercity passenger rail, railroad environmental research issues, rail capacity
- Resilience issues such as risk and resilience assessment and planning, supply chain resilience, operations resilience, such as seasonal climatic effects on transportation infrastructure, emergency evacuations, humanitarian relief, cyber security
- Safety topics related to safe mobility of older persons, younger drivers, motor carrier, motor coach, bicycle, pedestrian, speed, animal-vehicle collisions, rollover, aviation, medical advisory boards, operator licensing, training, and health, safety culture, school transportation, Safety Workforce Development, Emergency Medical Services, Rural Road Safety, Global Road Safety, Toward Zero Deaths, visibility, motorcycles and mopeds; safety data, analysis and evaluation, surrogate measures, simulation, naturalistic driving
- Sustainability and energy topics, such as alternative aviation fuels, energy and demand Implications of Connected and Automated Vehicles, sustainability indicators, sustainable pavements, Aviation Climate Change and Sustainability, Aviation Water Resources, Climate change
- Vehicle technologies issues such as truck and bus technology, guided and electric buses