



Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program

Strengthening Mobility and Revolutionizing Transportation

Fiscal Year 2024 Stage 1 Planning and Prototyping Grants by State

Alaska

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|---|--|--------------|--------------|---|
| State of Alaska Department of Transportation and Public Facilities | Avalanche Mitigation Alert Detection (AMAD) | \$1,128,799 | Sensors | This project will use Remote Avalanche Control Systems (RACS) and Advanced Forecasting Technology (AFT) to address significant avalanche risks on the Seward Highway corridor, one of Alaska's highest-trafficked NHS routes. |

California

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|---|--|--------------|-----------------------|--|
| Metropolitan Transportation Commission Under Departmental Review | Data Platform for Connected and Shared Mobility (CSM) Infrastructure | \$1,543,299 | Transit Innovation | This project will develop a cutting-edge map-based mobility data platform using Open Street Maps (OSM) to integrate critical systems throughout the San Francisco Bay Area and address operational inefficiencies relating to transportation improvement implementation. |
| Caltrans (California Department of Transportation) Under Departmental Review | Skate Deployment and Electric Bus Operations Optimization | \$2,000,000 | Transit Innovation | This project will use Skate (an open-source bus operations software) to address operational challenges in managing battery electric buses and improve overall transit service reliability across multiple transit agencies in California. |
| San Francisco Municipal Transportation Agency Under Departmental Review | The Smart & Integrated Management and Fleet Charging (SIM- FC) Project | \$2,000,000 | Transit Innovation | The Smart & Integrated Management and Fleet Charging (SIM-FC) project will use state-of-the-art platforms such as Software-as-a-Service (SaaS) combined with customer-side Internet of Things (IoT) devices, sensors, and advanced machine |



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| | | | | learning algorithms to address the inefficiencies from a fragmented, outdated, and manual bus yard management system that is susceptible to mistakes and delays. |
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Florida

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|-------------------------------------|--|--------------|--------------------|---|
| Pinellas Suncoast Transit Authority | Automating the Verification Process for Eligibility Benefits | \$1,000,000 | Transit Innovation | The project will use APIs to connect PSTA's reduced fare enrollment process to Login.gov to address the challenges prospective veteran and senior transit riders face to apply for free and reduced fares in Pinellas County, FL. |

Hawaii

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|-------------------------------------|---|--------------|--------------------|--|
| Hawaii Department of Transportation | AI Sensing-Empowered SMART Intersection Safety Improvements for Vulnerable Groups | \$1,290,000 | Connected Vehicles | The objective of this project is to develop smart infrastructure and AI-driven video analytics sensing systems around intersections to detect and predict vehicle, pedestrian, bicyclist position, speed, and trajectory for vehicle-pedestrian-bicycle collision avoidances based on real-time V2X communication, accurate positioning functions, and large amount of data transmissions. |



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Illinois

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|--------------------------------------|--|--------------|-----------------------|---|
| Chicago Department of Transportation | Chicago Accessible Intersection Navigation Application | \$1,490,000 | Smart Traffic Signals | This project will use traffic signal telemetry data through a smartphone application to improve accessibility for visually impaired pedestrians in the City of Chicago. |

Indiana

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|--------------------------------------|---|--------------|-----------------|--|
| Indiana Department of Transportation | Smarter and Safer Workzone Through Multimodal Intrusion Detection | \$1,980,988 | Workzone safety | This project will use Workzone Data Exchange (WZDx), roadside sensors, and Digital Twin (DT) technology to address the problem of workzone intrusion and enhance safety for drivers and workers in Indiana's highways and urban areas. |
| Indiana Department of Transportation | Building Local Capacity for Aerial Surveys | \$2,000,000 | UAS | This project will use small, unmanned aircraft systems (sUAS), sensors, data sharing and collaboration software to build local capacity for developing and delivering a National Defense Authorization Act (NDAA) compliant aerial survey program. |

Maryland

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|---|---|--------------|-----------------------|---|
| Baltimore City Department of Transportation | Smart Traffic Signal Systems to Mitigate Bridge Collapse Impact in Baltimore City | \$1,976,456 | Smart Traffic Signals | This project will use smart traffic signal systems to address mobility, safety, and logistics issues caused by the Francis Scott Key Bridge collapse in Baltimore City. |



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Minnesota

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| Red Lake Band of Chippewa Indians Under Departmental Review | Red Lake Nation E-Bike Smart Grid & Demonstration | \$595,866 | Smart Grid | This project will use smart grid software and renewable-energy powered e-bike charging stations to address transportation insecurity issues, physical and mental health concerns, and an inherent belief in environmental protection for Tribal members of the Red Lake Nation, and to replicate benefits derived from the project for other Tribal communities and rural areas. |
| City of Moorhead | Far-Moor SMART Traffic Signal System | \$1,989,000 | Smart Traffic Signals | The Far-Moor SMART Traffic Signal System will use a fully integrated advanced traffic management system (ATMS), advanced traffic signal performance measures (ATSPMs), traffic redistribution and routing, and transit signal priority (TSP), to enhance transportation safety, improve transit-time reliability, and improve equity through systemwide resiliency. |

North Carolina

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|---|---|--------------|--------------|--|
| North Carolina Department of Transportation | Remote Emergency Support Program for Operational Needs & Delivery (RESPOND) | \$1,100,000 | UAS | The Project will use innovative aviation technology (uncrewed aircraft systems) to create a drone disaster response and delivery network to address surface transportation and access challenges following natural disaster events in Lumberton, North Carolina. |



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New Hampshire

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|--|---|--------------|-----------------------|---|
| City of Manchester | City of Manchester Smart Traffic Signal Corridors Project | \$2,000,000 | Smart Traffic Signals | This project will install advanced traffic signal equipment, optimize corridor timing, improve vehicle, pedestrian, and bicycle detection, integrate connected vehicle technology, and improve the management of traffic signals through use of automated traffic signal performance measures (ATSPMs) to reduce delay and emissions while improving safety and communications in a disadvantaged neighborhood. |
| New Hampshire Department of Transportation | Procuring & Evaluating Mobile Command Vehicles for Critical UAS Missions Statewide in New Hampshire | \$459,284 | UAS | This project will design and acquire a prototype mobile command unit in support of using unmanned aircraft systems (UAS) to address the inability to get real-time images and resource needs to transportation departments throughout New Hampshire during times of natural disasters and transportation emergencies. |

New Mexico

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|-------------------|---|--------------|--------------|--|
| Bernalillo County | I-40 TradePort Corridor Intelligent Data Platform | \$1,939,762 | Sensors | The I40DTw project, through Stage 1 planning and prototyping, will develop the intelligent data platform that will underlie a fully functional digital twin implemented in Stage 2 to address transportation challenges impacting safety, efficiency, productivity, and environmental sustainability of the I-40 Corridor in New Mexico and Arizona. |



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Nevada

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|-------------------------------------|--|--------------|--------------|---|
| Nevada Department of Transportation | Enhancing Corridor Communication Roadmap | \$1,920,660 | Sensors | This project will use automation/artificial intelligence, digitalization, connectivity, data standardization, and systems engineering to develop the requirements of a data exchange that can ultimately be used by the I-80 and I-35 coalitions. |

New York

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|--|---|--------------|--------------------|---|
| The Port Authority of New York and New Jersey | C-V2X for Queuing and Merging Safety and Efficiency on Bridge Approach Corridors: A GW Bridge Pilot | \$1,999,999 | Connected Vehicles | This project will use C-V2X technology to address a stretch of problematic roadway with daily vehicular collisions that leads to hours of traffic congestion and concentrated vehicular emissions at the Trans-Manhattan Expressway section of the George Washington Bridge in New York City. |
| New York City Department of Transportation Under Departmental Review | Adaptive Transit Signal Priority (TSP) Demonstration | \$2,000,000 | Transit Innovation | This project will use adaptive Transit Signal Priority (TSP) technology to address bus performance to increase reliability and traffic signal inefficiencies on major corridors of the Bronx. |
| County of Dutchess | Autonomous High-Definition Aircraft Video Tracking & Data Collection System | \$1,931,850 | Sensors | This project will use artificial intelligence, computer vision, robotics, high-definition cameras, and autonomous recording systems to address critical challenges in documenting |



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| | | | | and monitoring aircraft operations at the Hudson Valley Regional Airport, located in Dutchess County, NY, as well as several private and commercial airports nationwide. |
| City of Utica | Utica SMART Traffic Signals | \$1,809,957 | Smart Traffic Signals | This project will use smart traffic signals to address pedestrian safety, emergency response times, and climate impact of excessive traffic congestion in a heavily traveled corridor within the disadvantaged City of Utica, NY. |

Oklahoma

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|----------------------------|---|--------------|--------------|--|
| Cherokee Nation | Cherokee AirCARE SMART Grant | \$1,460,805 | UAS | This project will use Unmanned Aircraft Systems (UAS) technology to deliver medical supplies and pharmaceuticals to support Community Health Nurses that are providing care in rural areas to patients who face transportation barriers and cannot travel to a clinic. |
| Choctaw Nation of Oklahoma | Intelligent Aerospace System Networks with Secure Unattended Hubs | \$1,918,409 | UAS | This Stage 1 project will use Secure Unattended Hubs, advanced Uncrewed Aviation Systems (UAS), and intelligent ground robotics to address safety and resiliency, and build supply chain reliability in the Choctaw Nation of Oklahoma's healthcare logistics system. |



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Pennsylvania

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| Southeastern Pennsylvania Transportation Authority | Improving SEPTA'S Accessibility using GTFS-Pathways | \$634,294 | Transit Innovation | This project will use GTFS-Pathways to improve accessibility and navigability of SEPTA transit by enabling turn-by-turn routing for riders within Metro stations in Philadelphia and Upper Darby, Pennsylvania. |
| Pennsylvania Department of Transportation | Freight Signal Priority Project | \$1,327,358 | Connected Vehicles | This project will use freight signal priority implementation to address critical air quality issues and freight related congestion in several areas in central Pennsylvania. |

Rhode Island

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|-------------------------|--|--------------|-----------------------|---|
| City of East Providence | The East Providence Traffic Circulation Improvements Project | \$549,770 | Smart Traffic Signals | The Project will use intelligent sensor-based technology and SMART technology traffic signals to better manage congestion that directly impacts the traditional City Center's downtown which includes the City's high traffic density and pedestrian-scale Taunton Avenue, where City Hall, small local retail and service businesses, schools and neighboring residential neighborhoods are located. |



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South Dakota

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| South Dakota Department of Transportation | South Dakota Statewide Advanced Traffic Management System | \$1,995,931 | Smart Traffic Signals | This project will use advanced traffic management system technology to integrate disparate intelligent transportation systems throughout South Dakota. |

Tennessee

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|--|--|--------------|--------------------|--|
| Tennessee Department of Transportation | Tennessee Truck Parking Availability System | \$1,986,000 | Sensors | This project will use truck parking availability system (TPAS) technology to address the truck parking shortage in Smith County. |
| Nashville Metropolitan Transit Authority | Fixed-Line Transit 2.0: Real-Time Optimization of High-Frequency Transit Service | \$1,982,235 | Transit Innovation | This project will use Computer Aided Dispatch/Automated Vehicle Location systems, headway-conditional Transit Signal Priority, traffic-adaptive signals, machine vision, and Artificial Intelligence/Machine Learning to address unreliable transit service, especially unstable bus headways, that cause long and unpredictable customer wait times at transit stops in the Murfreesboro Pike corridor in Southeast Nashville/Davidson County, Tennessee. |



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Texas

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| Waco Metropolitan Planning Organization | Smart Technologies for Businesses, Students, and Transit: Equitable Access in Mobility Systems | \$1,440,405 | Smart Traffic Signals | This project will use AI Edge sensors and the MobiMaestro algorithm to improve pedestrian, bike and transit usage, VRU safety, and human scale access to businesses in Waco downtown. |
| City of Galveston | Galveston Rapid Evacuation and Transportation System (GREATS) | \$1,999,970 | Smart Traffic Signals | The project will deploy AI-adaptive smart traffic signal technology and intelligent, sensor-based transportation infrastructure to improve emergency evacuation operations and optimize surge traffic flow across the City of Galveston during severe weather and visitor events. |
| City of El Paso | El Paso Downtown International Port ITS Design & Regional Integration Project | \$2,000,000 | Sensors | The Project includes designing intelligent transportation systems (ITS) for two international ports of entry and integrating existing ITS via Dynamic Traffic Assignment (DTA) operational simulation modeling. |

Virginia

| Recipient | Project Name | Award Amount | Project Type | Project Summary |
|--------------------|---|--------------|--------------|--|
| City of Alexandria | SmartScan: Alexandria's AI-Driven Roadway Infrastructure Monitoring | \$900,000 | Sensors | This project will use AI-powered camera technology to collect unbiased real-time condition information about our infrastructure. |

Washington



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| Intercity Transit | AI-Powered Smart Sensors & Integrated Data Management Dashboard | \$2,000,000 | Sensors | This project will use/install smart sensors to identify where conflicts occur, the nature of those conflicts and the severity to better manage the traffic signals around the Lacey Transit Center and the adjacent South Puget Sound Community College campus to reduce conflicts and improve transit reliability and performance, as well as implement an integrated data management dashboard. |