REPORT FROM

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date: November 7, 2022

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Council File No. None
Council District: All

To: City Council

From: Matthew W. Szabo, City Administrative Officer

Subject: **AUTHORIZATION TO APPLY FOR THE STRENGTHENING MOBILITY AND REVOLUTIONIZING TRANSPORTATION (SMART) GRANTS PROGRAM**

RECOMMENDATIONS

That the Council, subject to approval of the Mayor:

1. Authorize the General Manager for the Department of Transportation (DOT), or designee, to prepare grant applications for the proposals outlined in the Attachment; and

2. Instruct the General Manager of DOT, or designee, to report back if the City is awarded the grants, to request authority to accept the grant awards and confirm that the plan to provide any required match and/or front funding.

SUMMARY

The SMART Grants Program, a competitive grant that is administered by the U.S. Department of Transportation, provides grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems to improve transportation efficiency and safety. This Office received two project proposals from DOT for Council consideration
- Digitizing Infrastructure for Managing the Curb and the Automated Traffic Surveillance and Control (ATSAC) Ethernet Deployment.

The Infrastructure Investment and Jobs Act established the SMART discretionary grant program with $100 million appropriated annually for fiscal years 2022-2026.

BACKGROUND

The U.S. Department of Transportation (USDOT) issued the Notice of Funding Opportunity (NOFO) and called for eligible applicants to apply for the grants. Eligible applicants are: (1) a State; (2) a political subdivision of a State; (3) a tribal government; (4) a public transit agency or authority; (5) a public toll authority; (6) a metropolitan planning organization; and (7) a group of two or more eligible entities detailed above, applying through a single lead applicant. A SMART grant may be used to carry out a project that demonstrates at least one of the following: coordinated automation, connected vehicles, sensors, systems integration, delivery/logistics, innovative aviation, smart grid,

and traffic signals. Applications must be submitted by Friday, November 18, 2022.

The SMART Grants Program is divided into two stages - Stage 1: Planning and Prototyping Grants and Stage 2: Implementation Grants. USDOT expects that only recipients of Stage 1 grants will be eligible for Stage 2 grants.

During Stage 1, public sector project leaders can build internal buy-in and partnerships with public, private, academic, nonprofit, and community organizations and community networks to refine and prototype their concepts as well as report on results. At the conclusion of Stage 1, awardees should have the information to either create a fully realized implementation plan with robust performance metrics or to make an informed decision not to proceed with the concept. Stage 1 results may uncover previously unknown institutional barriers, technical limitations, or poor performance relative to conventional solutions. USDOT anticipates that Stage 1 awards will be up to $2 million over 18 months. Matching funds are not required for Stage 1 awards.

Stage 2 will provide funding for projects that are designed to result in a scaled-up demonstration of the concept, integrating it with the existing transportation system, and refining the concept such that it could be replicated by others. USDOT anticipates that Stage 2 will award grantees up to $15 million over 36 months. At this point, no decision has been made about potential local match requirements for Stage 2 Implementation Grants.

USDOT selects awardees based on the following priorities:

- Safety and reliability - Improve the safety of systems for pedestrians, bicyclists, and the broader traveling public; improve emergency response.
- Resiliency - Increase the reliability and resiliency of the transportation system, including cybersecurity and resiliency to climate change effects.
- Equity and access - Connect or expand access for underserved or disadvantaged populations; improve access to jobs, education, and essential services.
- Climate - Reduce congestion and/or air pollution, including greenhouse gases; improve energy efficiency.
- Partnerships - Contribute to economic competitiveness and incentivize private sector investments or partnerships, including technical and financial commitments on the proposed solution; demonstrate committed leadership and capacity from the applicant, partners, and community.
- Integration - Improve integration of systems and promote connectivity of infrastructure, connected vehicles, pedestrians, bicyclists, and the broader traveling public.
- Fit, scale, and adoption - Right-size the proposed solution to population density and demographics, the physical attributes of the community and transportation system, and the transportation needs of the community; confirm technologies are capable of being integrated with existing transportation systems, including transit; leverage technologies in repeatable ways that can be scaled and adopted by communities.
- Data sharing, cybersecurity, and privacy - Promote public and private sharing of data and best practices and the use of open platforms, open data formats, technology-neutral

requirements, and promote industry best practices regarding cybersecurity and technology standards. Safeguard individual privacy.
- Workforce development - Promote a skilled and inclusive workforce.
- Measurement and validation - Allow for the measurement and validation of the cost savings and performance improvements associated with the installation and use of smart city or community technologies and practices.

The following are the selection criteria for this grant:
- Technical merit criterion (1. Identification and understanding of the problem to be solved, 2. Appropriation of proposed solution, and 3, Expected benefits);
- Project readiness (1. Feasibility of workplan, 2. Community engagement and partnerships, and 3. Leadership & qualifications); and,
- Benefit to historically disadvantaged communities.

This Office met with DOT to discuss and evaluate if the grant proposals met the priorities and selection criteria of the grant. Based on the criterial ratings of this grant (High, Medium, Low and Non-responsive), this Office has determined that the DOT's projects are substantively and comprehensively responsive (likely to score High) to the SMART Grants Program's priorities and selection criteria. The following table shows how the DOT projects meet the grant's selection criteria:

	Name of Projects	
SMART Grant Selection Criteria	Digitizing Infrastructure for Managing the Curb	ATSAC Ethernet Deployment
Technical merit criterion #1. Identification and understanding of the problem to be solved	The proposed project aims to pilot solutions for managing the competing uses for curb space such as parking, loading, meters, bus stops and lanes, bike share stations, etc. This project is intended to improve safety, sustainability, economic vitality, and equity.	The existing traffic signal infrastructure does not support the most modern innovations in transit priority, autonomous vehicles, connected vehicles, pedestrian and bike safety. The proposed project aims to enable emerging technology in traffic signal management by piloting a deployment of ethernet based communications infrastructure. This pilot will prepare the traffic control system for these emerging solutions and enable improved safety, sustainability, economic vitality, and equity.

	Name of Projects	
SMART Grant Selection Criteria	Digitizing Infrastructure for Managing the Curb	ATSAC Ethernet Deployment
Technical merit criterion #2. Appropriation of proposed solution	The proposed solution is appropriate given the increase in demand for curb space. The project presents opportunities to reduce congestion, vehicle miles traveled, and greenhouse gas emissions through efficient management of these assets. The proposed solution can be scaled to include more than the initially identified pilot region. It will serve as a model and inform future projects that will rely on the Curb Data Specification (CDS) for real-time management and dynamic pricing within the curb lane.	The City's ATSAC communication infrastructure and Adaptive Traffic Control System (ATCS) centrally control 4,700 signalized intersections across the entire city. The proposed solution is appropriate given how comprehensive this system is and how many of the public use its features. The project presents opportunities to reduce congestion, and greenhouse gas emissions through efficient traffic management as well as enabling more sustainable forms of transportation such as transit. If the pilot is successfully deployed it can be expanded citywide and multiply these benefits in preparation for the 2028 Olympics and beyond.
Technical merit criterion #3 Expected benefits	The expected benefit is a curb management program that supports real-time management of City assets.	The expected benefit is a traffic signal management system that can support emerging technologies including transit priority, autonomous vehicles, connected vehicles, pedestrian, and bike safety
Project readiness (1. Feasibility of workplan, 2. Community engagement and partnerships, and 3 Leadership & qualifications)	DOT has identified potential project partners (Urban Movement Labs and Open Mobility Foundation) and is actively working with these partners to develop project proposals and scope.	DOT has identified several potential project partners (Metro, Urban Movement Labs and Calstart) and is actively working with these partners to develop project proposals and scope.

	Name of Projects	
SMART Grant Selection Criteria	Digitizing Infrastructure for Managing the Curb	ATSAC Ethernet Deployment
Benefit to historically disadvantaged communities	DOT uses USDOT's Historically Disadvantaged Community map (based on transportation disadvantaged census tracts) to identify historically disadvantaged communities in the City of Los Angeles, and to plan and deliver transportation projects that improve identified conditions in collaboration with affected stakeholders.	This pilot will be deployed in a Federally designated Promise Zone (Hollywood region) where there is a higher poverty rate than the citywide average, high rates of unemployment, high school dropouts, and a shortage of affordable housing. Funding from this Project will target resources to help improve access to jobs, community services, and education through high quality transportation access, boost public safety by providing a safer active transportation system, and improve the local environment by optimizing traffic flow.

FISCAL IMPACT STATEMENT

Approval of the report recommendations will not result in a General Fund impact.

FINANCIAL POLICIES STATEMENT

The recommendation in this report complies with the City's Financial Policies.

MWS:JSL:06230036

Attachment

ATTACHMENT – DOT GRANT PROPOSALS

US Department of Transportation - Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program
NOFO Release Date: September 16, 2022
Due date: November 18, 2022
Performance Period: 18 months

Lead Department	Project Name	Project Description	Total Project (Budget)	Total Grant Request	Planned Completion Date
DOT	Digitizing Infrastructure for Managing the Curb	The project goal is to establish a digital inventory of the City's physical curb space. Using this information, the project will provide pilot curb management solutions that support the enforcement of curb regulations, allow for dynamic pricing and other potential solutions for varying demands for curb space such as parking, loading, meters, bus stops & lanes, bike share stations, etc., and improve asset management. As the demand for curb space continues to increase, this project is crucial given its ability to support real-time management of the public realm and the City's assets. This project advances safety, equity, climate action, and economic sustainability. This is a pilot program and project locations will be determined as part of grant activities. There is an opportunity to scale up this proposal in the next cycle of funding in SMART Stage 2, expected Fall 2023.	Up to $2,000,000	Up to $2,000,000	June, 2024
DOT	ATSAC Ethernet Deployment	The project is intended to replace legacy serial communications technology in the Automated Traffic Surveillance and Control (ATSAC) System with ethernet technology. This new Ethernet deployment will not only modernize our network but will also allow the deployment of emerging technologies such as transit priority systems, active transportation technologies, autonomous and connected vehicles, and shared mobility.	Up to $2,000,000	Up to $2,000,000	June, 2024