CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Date: October 27, 2021

To: Honorable City Council
c/o City Clerk, Room 395, City Hall
Attention: Honorable Mike Bonin, Chair, Transportation Committee

From: Seleta J. Reynolds, General Manager
Department of Transportation

Subject: **CODE THE CURB PROGRAM UPDATE (CF 15-1450-S2)**

SUMMARY

As directed by the City Council in Council File 15-1450-S2, this report provides an update on the Los Angeles Department of Transportation's efforts to advance the Code the Curb Program.

RECOMMENDATION

RECEIVE and FILE this report.

BACKGROUND

In June 2014, Mayor Garcetti engaged a group of stakeholders to discuss opportunities to improve the parking experience throughout the City of Los Angeles (City). This Los Angeles Parking Reform Working Group included residents, business owners, and representatives of different organizations. The working group reviewed and analyzed a wide variety of potential parking reforms, then released their comprehensive report and recommendations for consideration in 2015. Among these recommendations was a proposal to take a digital inventory of all the public street curbs and code them according to their attributes.

The Los Angeles Department of Transportation (LADOT) Code the Curb work program aims to build and maintain a digital inventory of the City's physical curbside assets and regulations. In taking a digital inventory and maintaining LADOT's expansive system of physical assets, the program can enhance LADOT's ability to collect real-time curbside usage and activity data, manage curbside uses, dynamically change parking rates and policies, and implement mobility management strategies.

Code the Curb is a significant undertaking to inventory more than one million regulatory, guide, and warning signs, 34,000 parking meters, and curb paint along 7,500 centerline miles of streets in Los Angeles. Key components of the program include analyzing existing workflows for eWork (LADOT's online work order tracking system), designing a curb asset management system, and building and deploying advanced curb management procedures. When complete, the digital inventory will allow for Citywide dynamic parking pricing and regulations.

In June 2020, LADOT provided an update to the City Council (Council) on the Code the Curb Program. This included a Phase 1 progress report and a summary of potential next steps in the context of the

COVID-19 pandemic. Phase 1 included an internal assessment of how LADOT currently manages its curbside assets, and a roadmap highlighting specific activities the Department can implement to achieve the objectives of Code the Curb. Council directed LADOT to pursue external partnerships and outside funding sources to advance the Code the Curb Program while the City faced economic uncertainties.

DISCUSSION

This report highlights the progress made since June 2020, including completing Phase 1; advancing pilot projects to evaluate curbside asset data collection methodologies, costs, and accuracy rates; and the status of strategic partnerships and outside funding sources.

Demand for the City's curb space grew during the COVID-19 pandemic. Competing demands today include outdoor dining, restaurant and retail pick-up zones, commercial activities like passenger pickups and drop offs, traditional and on-demand delivery services, private vehicle parking spaces (including metered spaces and those reserved for electric vehicle charging), and goods and freight deliveries. The pandemic reinforced the long-term benefits of digitizing the City's curb assets and using curb data to proactively manage curbs and sidewalks.

Code the Curb Phase 1

Phase 1 is now complete. Contractual services for this phase included the following deliverables:

- Volume I: Scoping Study - An as-is assessment of existing LADOT curb asset management practices.
- Volume II: Asset Management Plan - An asset management plan that serves as a blueprint to achieve the objectives of Code the Curb.

The Scoping Study (Volume I) documents LADOT's existing practices for curb asset management, establishes goals for curb asset management in the future, and describes the gaps between the Department's goals and present-day conditions. The Asset Management Plan (Volume II) identifies specific activities related to data governance, processes, and refreshed technologies that, if properly resourced, LADOT should pursue over the next five years to achieve its vision of a digital curb asset management system. The executive summary of the Volume II report is attached.

Pilot and Demonstration Strategy

LADOT launched three pilot projects to advance the goals of Code the Curb within the context of the COVID-19 health and economic crisis, and a reduced workforce. These pilot projects, defined below, will demonstrate and test digital curb asset management solutions, build an open-source curb data visualization and management platform, and evaluate the effectiveness of new curb regulations.

- Curb Data Collection (nearing completion) - this pilot tested two curbside data collection methods to better understand the opportunities and challenges in collecting large sets of curbside asset data. The first method included walking streets with an open source tool called CurbWheel, which captures images and coordinates of transportation signs, such as stop signs and other regulatory or guidance signs. The second method involved driving a vehicle with a high-resolution camera to collect and identify curbside imagery with geospatial data on city

streets. The methods collected images of curb assets and regulations in Hollywood, South Park, and Warner Center. Collecting data in different land use contexts helps LADOT understand the cost and accuracy of different methods. Once completed, the pilot will offer insights on the potential return on investment on each data production method and will inform future decisions related to scaling solutions.

- Multimodal Curb Monitoring (underway) - this pilot installed cameras to measure and analyze curbside activities in Downtown Los Angeles, Koreatown, and Encino - communities where demands for curb space tend to outpace availability. The pilot follows best practice data protection and privacy protocols and will enable LADOT to access real-time curb data, understand multimodal curb demands, evaluate curb technology capabilities by curb user type, and help design a digital curb management system that is interoperable with the mobility data specification (MDS). MDS, a set of Application Programming Interfaces (APIs) provides a standardized way for agencies to receive, ingest, compare, and evaluate data from mobility service providers. The pilot project will use automated video analytics to better understand how people use the curb, which can inform improved parking policies

- Zero Emission Delivery Zones (underway) – in October and November 2021, LADOT will install five new curbside commercial loading zones for the exclusive use of zero emission delivery vehicles (including electric trucks and electric cargo bikes). This first phase of the pilot (approved per CF 21-0147) will collect and evaluate usage data for at least one year to determine if the new zone can serve as a potential strategy in LADOT's curbside management toolbox and one that, if effective, can be scaled up and installed in more neighborhoods. During the demonstration, LADOT will work with parcel delivery companies to incorporate a set of application programming interfaces (APIs) focused on curbside management, which will improve communication of curbside rules and regulations between LADOT and users of the public right-of-way.

<u>Strategic Partnerships</u>

Coordination, interoperability, and integration are underlying goals of the Code the Curb Program. LADOT collaborates with the Bureau of Streets Services (BSS) on their enterprise asset management system and has worked with BSS to prepare its asset management scope of work and to select the contractor to deliver the program.

LADOT engages regularly with other agencies, including Caltrans, LA Metro, and the Southern California Association of Governments, to collectively pursue strategies related to goods movement policies, asset management best practices, last-mile delivery enhancements, and curbside management strategies. To augment LADOT staff and assist the pilot projects described above, LADOT initiated a strategic partnership with Urban Movement Labs (UML). UML is a non-profit organization that partners with communities, public agencies, and mobility innovators to pilot, evaluate, and accelerate mobility innovation with a focus on sustainability and equity. Expanding on their existing portfolio of mobility innovation efforts underway within the City, UML partnered with private technology vendors to deliver the Curb Data Collection and Multimodal Curb Monitoring pilot projects.

Similarly, LADOT benefits from the role and guidance of the Los Angeles Cleantech Incubator (LACI) - the City's official cleantech incubator established to accelerate the expansion and commercialization of clean technology in the Los Angeles region. LADOT joined a partnership led by LACI, that includes the

cities of Pittsburgh and Santa Monica, to accelerate the implementation of curb management strategies that incentivize the use of zero emission commercial vehicles.

In addition to these partnerships, LADOT serves as a member of the Open Mobility Foundation (OMF) Curb Working Group Steering Committee. OMF is an open-source software foundation that offers a governance structure around open-source mobility tools, beginning with a focus on the Mobility Data Specification (MDS). Through this partnership, LADOT is able to connect with peer cities to share experiences and lessons learned, pilot curbside innovations, and obtain new insights related to enhanced curb space management strategies. A key objective of the steering committee is to establish the first version of a new curb data specification that aims to provide a mechanism for expressing static and dynamic curbside regulations, measure real-time activity along the curb, and provide access and utilization for curb users.

Program Funding

The City's Fiscal Year 2021-22 budget includes funding for LADOT to secure contractual services to design a curb asset management system that offers an online administrative portal and supports interoperability with other systems. The scope of this effort would develop, implement, and train staff on curb asset management (CAM) system requirements, including technology needs and support to integrate the CAM system with City work order systems. However, LADOT requires staff resources to lead this effort, to advance the Code the Curb Program beyond the demonstration phase, to support the two grant-funded programs described below, and to continue to foster the aforementioned partnerships. LADOT will submit a request in the upcoming budget for these necessary resources which will include the technical classifications needed to deliver the program which could include Database Architects, Data Analysts, and/or Systems Analysts.

As directed during the last report update to Council, LADOT successfully applied for and was awarded the following grants:

- LADOT joined a partnership led by the Los Angeles Cleantech Incubator to successfully apply for a Department of Energy Vehicle Technologies Office grant. This grant will fund a three-year program to test and evaluate curb management and integration strategies that can catalyze adoption of electric vehicles. This project will build upon existing traffic data and curb management deployments in two of the worst metropolitan areas for air quality (Los Angeles and Pittsburgh) to provide cities with a roadmap to accelerate zero emission transportation and lower vehicle miles traveled for the commercial activities responsible for the largest impacts on inefficient energy use, congestion, and pollution. LADOT expects to launch this project in early 2022.

- LADOT applied for and was awarded a Southern California Association of Governments (SCAG) Smart Cities and Mobility Innovations grant. On LADOT's behalf, SCAG will solicit proposals that help LADOT develop a demonstration project that involves three key work areas to: (1) create a data inventory of curb zone regulations; (2) build and maintain holistic curb activity analytics; and (3) demonstrate integrated solutions to curb management. LADOT seeks to build and maintain a curb data ecosystem that makes use of inventoried curb zone data and builds on the MDS and the software products LADOT already uses to dynamically manage dockless mobility programs. LADOT expects the SCAG solicitation process to begin in November 2021.

FISCAL IMPACT

There is no fiscal impact as this report is informational.

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attachment