SMART GRANTS PROGRAM

Code the Curb: Digital Curb Management

Los Angeles Department of Transportation (LADOT)

PROJECT PARTNERS

Cambridge Systematics
Arcadis / CurbIQ
Downtown LA Neighborhood Council
Central Cities Association
Open Mobility Foundation (OMF)

PROJECT CHALLENGE

The Code the Curb project will digitize curbside assets such as parking meters, EV charging stations, curb paints, regulatory signage, and bus stops. Also, implementing new data collection devices through the use of vision technology to provide more detailed information of curb activity. Data will then be formatted into a new data specification, the Curb Data Specification (CDS), that is being spearheaded by the OMF along with several other SMART grantee cities. By integrating this data into a dashboard, LADOT can provide real-time curb availability information via the CurbIQ platform and through publicly available Application Programming Interfaces (API) and manage these spaces dynamically. The solution will allow for better allocation of curb space based on real-time demand, reducing congestion and improving overall efficiency.

IMPACT

With a digital management system in place, LADOT will have a clearer understanding of how curbside space is being used. This will help optimize curbside activity, reduce congestion, and support the needs of all users, including drivers, cyclists, and pedestrians. The project will also lay the groundwork for future integration of dynamic pricing and more responsive curb policies, ultimately improving urban mobility and sustainability.

CURRENT STATE OF THE ISSUE

Currently, curbside management relies on static regulations that are not centralized into a single database making it difficult to effectively manage. This, along with the increased demand on curb space has led to unpredictable availability and curb misuse. This causes traffic congestion as vehicles circulate to find parking or loading spaces, impacting overall urban mobility and violations and improper use cause safety hazards for pedestrians and active transportation users along our most busy corridors.

POLICY QUESTIONS

1. How can real-time data be integrated into existing transportation systems to optimize curb usage?
2. How can dynamic curb management be used for large scale events for large venues in LA and how can these findings be scaled up to meet the needs of the upcoming 2028 Olympics?
3. How can LADOT ensure compliance with dynamic curb regulations?

STAGE 1 OUTCOMES

Stage 1 has focused on digitizing existing curbside assets, engaging with key stakeholders, and laying the groundwork for real-time curb management. Outreach efforts with the Downtown LA Neighborhood Council and Central Cities Association have been critical in building support and understanding curbside needs. Baseline data collection has begun, including mapping parking meters, bus stops, curb paints, regulatory signage, and other curb assets. Initial insights have shown the need to incorporate equity metrics into the dynamic pricing model for more inclusive access to curb space.

STAGE 2 VISION

In Stage 2, the project will move towards implementing digital signage to provide real-time curb policy updates to users. This phase will also involve full-scale integration of dynamic pricing models and real-time data collection via camera technology. The goal is to create a flexible and adaptive curb management system that can adjust to fluctuating demands, reduce congestion, and support a more efficient transportation ecosystem. Stage 2 will also focus on scaling the project to other high-demand areas beyond Downtown LA.