

Attachment A – Pilot Roadmap Details

Pilot Roadmap: Setting a framework for scalable solutions

In recent years, Bellevue has launched several pilot projects intended on tracking and optimizing curbside operations in critical locations. These pilot projects concluded with interesting findings but were limited in next steps that could be used to scale solutions. Bellevue's Curb Pilot Roadmap provides a framework to use the curb as a platform for innovation and cooperation where the city can test, refine, and scale new strategies to support the public good. The Pilot Roadmap prioritizes six near-term, outcome-oriented pilots that test new approaches to curb management in Bellevue.

In October 2022, the city convened a Curb Pilot Workshop with members of several City government teams and partners from the Open Mobility Foundation, the University of Washington's Urban Freight Lab, and King County Metro Transit to align on curb-related problem areas and solutions. The workshop included brainstorming ideas for pilots, conceptualizing how to leverage pilots to further the City's curb management goals within current constraints, and considering priority pilot concepts.

During the workshop, seven priority problem areas were identified that could be solved through pilots. These problem areas fall into three categories. Problem statements are listed in Table 1 below.

Table 1: Curb Pilot Problem Statements

<u>Curb Use Category</u>	<u>Problem</u>
Curb Use	<ul style="list-style-type: none"> • Need to eliminate auto/delivery conflicts with transit, bike, and pedestrian movement at the curb • Curbs are generally inflexibly and single use (e.g., passenger, freight loading, and parcel delivery are regulated as one category) • Not enough passenger and commercial loading zones due to growing delivery & ridehail demand
Curb Network and Information	<ul style="list-style-type: none"> • Imbalance between the curb’s throughput, access/delivery, and place functions • Perception of parking difficulty: lack of parking at the curb, parking is hard to find, and/or there is a low awareness of off-street parking options
Curb Management Processes	<ul style="list-style-type: none"> • City currently lacks a systematic way to collect, update, manage, and communicate curb data • City currently lacks the ability to effectively enforce curb regulations (such as loading and lane blockages)

The rapidly evolving nature of the curb necessitates an ethos of innovation, experimentation, partnership, and scalability. Piloting will help the city rapidly re-envision and operate curbs that are vibrant, safe, inclusive, and responsive to changing demand. The pilot concepts are oriented around Bellevue’s overarching goals and context, constraints, and prior curb pilot efforts.

Curb Pilot Practices

After consulting with the project team, discussing with workshop participants, and reviewing other pilot projects around the country, best practices for Bellevue pilots were developed to help lead toward positive outcomes:

- **Prioritize equity and inclusion.** This includes ensuring access to technology regardless of banking, credit card, or smartphone access; selecting vendors and pilot locations using equity criteria; ensuring pilot communications and awareness campaigns are context appropriate; and co-designing pilot parameters with community members to directly meet their needs.

- **Confirm regulatory authority.** Curb pilot teams need to collaborate with the Development Services and Legal departments to ensure Bellevue’s regulatory authority extends to pilot curb uses.
- **Communicate changes clearly and proactively.** The City will work with representative community groups and key stakeholders to educate. This includes developing multi-lingual collateral materials and diverse communications pathways to share information (i.e., times of day, media outlets, locations, etc.).
- **Ensure capacity to manage the pilot.** This includes dedicating a project manager within the Transportation Department who will be the pilot’s point person, a Director-level project sponsor, and a cross-functional team who will support on pilot operations, enforcement, safety, permitting, data collection, and evaluation.
- **Develop expectations and protections for data sharing.** During pilot planning, Bellevue will establish a data sharing plan and vendor requirements, data ownership, data communications format and standardization of APIs, privacy and accuracy requirements, and regular check-ins with vendors to create effective dashboards.
- **Evaluate pilot performance.** At the pilot’s initiation, the City will work with pilot partners and vendors to confirm that the type and format of data collected directly align with project metrics and overall outcomes for ease of evaluation. Curb pilots will be evaluated on an ongoing basis and at the pilot’s conclusion.
- **Leverage enforcement tools to drive pilot outcomes.** Voluntary pilots only offer a limited understanding of curb effectiveness and behavior. Pilots should integrate enforcement tools and clear compliance definitions within the city’s legal authority.

Pilot Concepts

The six identified short-term pilots to address problem statements are listed in Figure 1 below. These pilots aim to directly address problem statements and fit within the parameters of best practices.

Figure 1: Curb Pilot Concepts for Bellevue



1
Zero Emissions Delivery Zones

Allocate curb space for low/no emission commercial delivery modes and methods such as e-cargo bikes, electric vans, and common lockers to divert loading to the zones and incentivize operators to more rapidly innovate



2
Shared AV Loading and Digital Curb

Create permitting process that allows shared autonomous mobility operators to digitally map the curb and, in the longer term, test and launch operations to proactively define the future of autonomous mobility in Bellevue



3
"On-Street to Off-Street" Curb Diversion

Divert personal vehicles to off-street parking by displaying garage/lot occupancy and divert commercial vehicles to existing loading bays to create a safer and less congested curb ecosystem for desired and shorter term uses



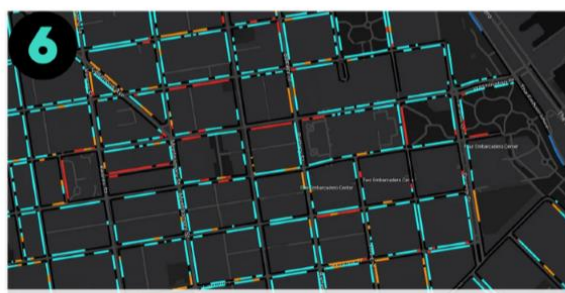
4
Loading Zone Supply / Demand Alignment

Collect data on loading zone locations, usage, and demand for different types of loading (commercial, passenger, personal) to understand mismatches and rightsize the number and types of loading zones according to current supply/demand



5
API Standardization via Curb Data Specification

Join the CDS working group and standardize data sharing, APIs, and communication requirements with mobility operators



6
Agile Processes for Real-Time Workflow, Information, and Regulation Updates

Institute streamlined, agile processes in Bellevue's internal workflow so all City functions use the same process to update curb asset data and regulations

Photos:

1. Los Angeles Zero Emission Delivery Zone. Source: LADOT
2. Gold Coast, AUS autonomous shuttle passenger drop-off. Source: RAQC
3. Parking lot occupancy pilot signage AUS. Source: Smart Parking
4. Computer vision output for curb data collection on loading zone and commercial vehicle behavior. Source: Automotus
5. Curb Data Specification Overview. Source: Open Mobility Foundation
6. Map of curb regulations in the digital Curb Explorer environment Source: Coord

