

# Research Summary

## Improving Future of the Commonwealth's Curb

### Research Need

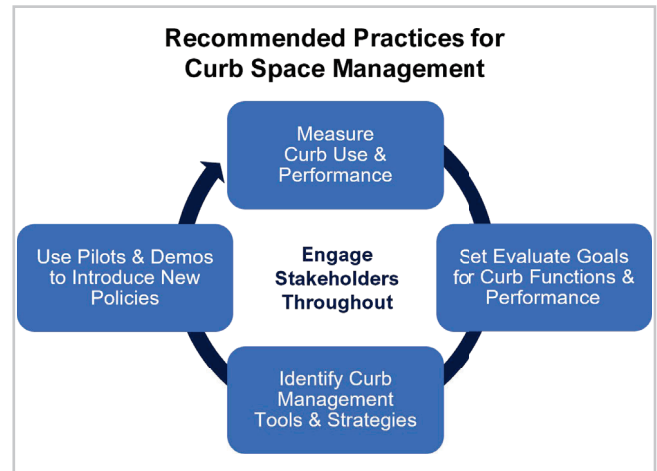
There are diverse and quickly-evolving demands for use of curb space in municipalities of all sizes across the Commonwealth (i.e., transportation network companies - TNCs, transit, micro-mobility, pedestrians, et al.). There is a need to identify designs and policies for curbside lane management that are appropriate for a variety of contexts that exist across the Commonwealth.

### Goals/Objectives

This project has two main objectives:

- 1) To explore the demands on the curbside lane and identify strategies for re-purposing and managing the curbside lane in municipalities across the Commonwealth of Massachusetts.
- 2) To identify future demands on the curbside lane and consider how the curbside lane could be re-purposed and managed to accommodate these new demands.

The outcome of this project is a document that provides recommendations for communities based on context. These recommendations are derived from review of the literature and analysis of stakeholder interviews. The intent is to create a forward-looking reference that identifies potential strategies for curbside lane design and management, recognizing that some strategies offer more flexibility over time while others may require infrastructure investments to fully realize benefits.



### Methodology

The project began with a review of literature and current practice to identify an appropriate classification of communities or curbside lane contexts.

Key stakeholders were engaged to gain insights about who is using the street and what data is available for measurement, what are specific needs and concerns related to curbside management, and any anticipated future changes with respect to technologies or behaviors.

A proposed framework for identifying appropriate curbside lane designs and management strategies was generated to reflect input from the stakeholders and the team's analysis of effectiveness for different contexts and flexibility for future needs.

## Key Findings

In recent years, there has been increasing attention on the competing needs at the curb leading municipalities to implement curb management policies. Four trends are affecting the use of curb space:

1. Increased use of ride-hailing services
2. Increased e-commerce (online shopping and food delivery)
3. Increased interest in multimodal transportation (walking, cycling, transit)
4. Active management of curb space

To support effective curb management policies, the use and performance of the curb should be measured. This allows curb functions (e.g., access for people and goods, greening, storage, emergency access, repairs and maintenance, etc.) to be appropriately prioritized. Data is also necessary for the implementation of responsive policies and evaluating their effectiveness.

Three strategies for managing curb functions are 1) relocation, 2) flexibility, and 3) conversion. Implementations may require different types of infrastructure, including signage and paint, technology, and constructed infrastructure. Input from 15 stakeholders brought to light four general themes around existing curb uses, needs, and expectations for the future:

- 1) Primary Users of the Curb, 2) Data, 3) Policy Changes, and 4) Future Needs.

The literature review and stakeholder engagement support the following insights and recommendations:

1. Effective curb management starts with data
2. Policies should promote the "best" use of space, which depends on context
3. Engage stakeholders through the process
4. Use pilots to get data and build support
5. Embrace active and flexible curb space management practices

The COVID-19 pandemic illuminated the need for flexible policies that can adapt to changing and unpredictable needs.

## Project Information

This project was completed as part of the Massachusetts Department of Transportation (MassDOT) Research Program with funding from Federal Highway Administration (FHWA) State Planning and Research (SPR) funds.

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### Key Words:

curb management, complete streets, passenger loading, freight delivery

## Use of Findings

This study synthesizes best practices for curb management as described in the literature and relates the policies and metric for curb space to the needs of Massachusetts communities. The final report provides a summary of the existing literature and state of the art for curb management from around the United States. The report also provides a systematic analysis of stakeholder views related to curb management from communities of different sizes from across the Commonwealth. This document will be used to provide information to communities that seek to improve curb management policies and practices. It also provides information to support funding decisions and design guidance provided by MassDOT.

