The Value of the Curb
Organization, Regulation, and Monetization of Your Precious Right-of-Way

American Planning Association
November 6, 2020
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Today’s Agenda

01. Getting to Know Each Other
02. What is Curb Management
03. Curb Management Framework
04. Treatments for Success
05. Implementation: Data, Policy, Technology, and Fees
06. Group Activity
01 Getting to Know Each Other
About Walker

All things parking and mobility.

55 years of national and international experience.

800+ municipal and public agencies served.
Learning Objectives

- Define curb Management and the value of the curb
- Understand the historic changing demands of the curb and trends
- Understand what effective curb management can accomplish
- Define policy and technology considerations
- Learn implementation strategies
02 Why Curb Management
Who Demands Access

- Competing and conflicting demands
- Congestion
- Accessibility, equity, and safety issues
- New and ever-changing transportation methods

Create a Curb Management Framework to Prioritize!

Image: Adapted from NACTO
Learnings Since March

- Covid-19 converges with ongoing trends
- Pricing/Revenue
- We can adapt and be nimble and take fast action
- Testing new ideas for the long-term
THE CURB IS PRIME REAL ESTATE

Changing demand requires cities to understand curb utilization to determine if private vehicle parking is the best use based on actual activity and mobility goals.

Curb management is journey based on their local context:

- Understanding how the curb is regulated and used today
- Implementing the tools and processes to quickly adjust curb regulations to optimize for increasingly dynamic demands placed on the curb
- Establishing a hierarchy of curb uses and leveraging infrastructure and policies to serve the right user groups, in the right locations, at the right times of day and days of week
- Monitoring, enforcing and monetizing the curb in an equitable fashion
- Must have curb management strategies in place with any reduction in off-street parking minimums

The curb has potential to provide greater access to more people if options beyond private vehicle parking are considered.
What is Curb Management

- Curb management is a journey based on community priorities
  - Inventory, optimize, and manage curb space
  - Determine specific priorities, maximize access, and balance growing needs
  - Improve level of service
  - Strategies will vary depending on the size, context, and priorities of the community
  - Curb access can be flexed or prioritized throughout the day based on changing demand
03 Curb Management Framework
Set Goals for the Curb

• High level goals for curb access
  • Who are the primary user groups?
  • What types of land uses are most prevalent?
• What are the primary activities occurring at the curb?
• What are the community’s goals for the curb and for mobility generally?
Identify Opportunities in Your Community

Activity Centers

- Curb Management is best suited for areas where multiple modes of travel converge, such as central business districts, shopping destinations, and airports.

- Land Uses Best Suited for Curb Management:
  - Central Business Districts
  - Downtowns
  - Entertainment Districts (theaters, stadiums, arenas)
  - Mixed-Use Developments
  - Shopping Destinations
  - Airports
  - Hospitals
  - College Campuses

- Land Uses that Typically Don’t Need Curb Management:
  - Single Family Residential Neighborhoods
  - Big Box Stores
Determine Curb Functions

- Access for people
- Goods/Commerce
- Activity
- Vehicle Storage
- Movement
Education and Outreach

- Convey value of the curb
  - Benefits from organized curb

- Learn community needs

- Pilot Programs: Establishing pilot programs to test the efficacy of selected treatments
  - People can experience
  - Adapt based on use and performance
Education and Outreach

**A DIGITAL COMMUNITY.**
An online hub for the project will serve as a unique digital community for the City of Boulder, where people can learn, share opinions and feedback with each other and project leaders, and see how their ideas are influencing the final outcomes.

**EQUAL ACCESS.**
Our online engagement platform will promote equity in access through on-demand language translation, 24/7 availability, built-in design standards for people with cognitive and physical disabilities, and multiple options to contribute ideas.

**MULTIPLE LAYERS.**
Digital engagement enables more user control. Those who want to simply learn about the project and its impacts can do so, while those who want to dig deep (or even deeper) can do just that using the same platform.

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**WE'RE USING DIGITAL OPTIONS TO OUR ADVANTAGE**

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**Potentially Underrepresented Community Members**

- Lower Income Community Members
- College Students
- Service/Hourly Employees
- Non-Native English Speakers
- People of Color
- Unhoused Community Members
- People with Cognitive and Physical Disabilities
- Community Members under 30
Education and Outreach

Boulder AMPS Implementation: Revitalizing Access in Boulder

Access to the city of Boulder through a variety of transportation and parking options contributes to Boulder’s high quality of life. To improve access to these options across the city and for our entire community, the Access Management and Parking Strategy (AMPS), adopted by City Council in 2017, aims to support the balance between providing sufficient vehicle parking and reducing the impacts vehicles have on our quality of life. In the year ahead (mid-2020 to mid-2021), the city is moving forward with two key strategies to pursue and maintain a better balance of access and parking needs.

Share Your Thoughts!

Quick Polls
Short on time? Weigh in on neighborhood parking management and parking pricing with a 60-second poll.

Access Questionnaire
Have 5 minutes or more? Take our questionnaire on revitalizing access in Boulder.

Join the Discussion
Share your thoughts about better access to neighborhood parking permits, parking rates, and Boulder parking pricing.
## Prioritize Access and Tradeoff Evaluation

The City of Seattle prioritizes curbs based on land use context.

<table>
<thead>
<tr>
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<th>Industrial Areas</th>
<th>Residential Areas</th>
<th>Commercial or Mixed-use Areas</th>
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<td>Private Vehicle Storage</td>
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</tbody>
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Source: *Curb Appeal*, NACTO, 2017
04 Treatments for Success
Selecting Curb Treatments

• Private vehicle parking
• Passenger pickup/drop-off
• Parklets
• Bike / Micromobility lanes and parking
• Bus/Transit lanes
• Commercial loading zones

Can be flexed throughout the day
Passenger Pickup / Drop-Off: Boston, MA

- Pilot program for pickup/drop-off
- Geofenced areas for pickup only
- 30% reduction in pickup/drop-offs in the travel lane
- Increased curb utilization by 350%

Learnings:
- Remove furniture zone and trip hazard
- Need specific wayfinding and communications
- Data collection challenges, difficult to collect manually
- Offsetting parking meter revenue
- Allow for more space for vehicle pull-ins

Images: City of Boston
Pedestrian Realm: Benicia, CA

- Parklet program
  - Streateries / Public parklets
- Street has high crown and slope
  - Flooding and drainage
  - Must be ADA accessible
- Wheel stops / Buffer zone
- Flexible posts or bollards
- One-foot setback from bike or travel lane
- Utility access
- Local support
- City may provide platforms
Loading Zones: Columbus, OH

- Tested on-demand curbside reservation system for delivery drivers
- Better understand operational needs for delivery
- Test if a reservation system could improve efficiency and safety
- Eight loading zones used 19,000 times, 105/day

Learnings:
- Average dwell times was five minutes
- Peak demand 12pm – 2pm and 6pm – 7pm
- Prevented double parking
- Need more dedicated spaces
- Resistance to using an app
- Need enforcement
- Pricing challenges because of transaction fees
Parking

San Francisco, CA: SF Park
• Federally funded pilot
• Performance pricing
• Sensor data
  • Reached end of useful life
• Adjusted approach
• Concept offers a framework for other cities
Stacked Single File (6 Spaces)

Stacked (16 Spaces)

LOS A Parallel (12 Spaces)

LOS D Parallel (18 Spaces)

LOS A Sawtooth (14 Spaces)

LOS D Sawtooth (16 Spaces)

LOS A Pull-thru with peds (20 Spaces)

LOS A Pull-thru without peds (20 Spaces)
05 Considerations
Curb Data

- **Need data to test and adapt curb treatments**
  - Ongoing data collection and analysis
  - Partnerships/data ownership and access

- **Open data standards**
  - Mobility Data Specifications (MDS, Open Mobility Foundation)
  - General Transit Feed Specification (GTFS Mobility Data)
  - General Bikeshare Feed Specification (GBFS North American Bikeshare Association)
  - Open Curbs (Coord)
  - CurbLR (SharedStreets)
  - OpenALPR (Rekor Recognition Systems)

Data gaps currently exist in accommodating commercial freight and courier services, on-demand delivery and Ride Apps.
Spectrum of Curb Management Technology

**Inventory**
- Visualizing and mapping existing conditions

**Monitoring and Enforcement**
- Know curb use patterns
- Monitor demand

**Monetization**
- Enact fees for curb activities beyond parking

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Operationalize/Implement

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Collector
for ArcGIS

UNLEASH

POPLUS

curbFlow

VADE

Automotus

COORD

Passport

Cleverciti

SharedStreets
Curb Access Fees

- Charge access for all curb users
  - Ride Apps
  - Commercial / On-demand delivery
- Diversify parking and transportation revenue sources
- Manage demand and prioritize access
- Expand the financial output of the curb and respond to changing consumer demand
- Invest in access and mobility improvements
- Provide a higher level of service

- Incremental process
- Allow regulatory flexibility
- Data and monitoring
- Enforcement
- Move toward curb congestion pricing
Ride App Fees

San Francisco
• Ballot measure in California

• **Chicago, IL** tiers Ride App fees to incentivize shared rides and decrease congestion
Micromobility: Columbia, MO / Univ. of MO

Columbia, MO and the University of Missouri developed a joint Dockless Mobility RFP / fee structure
Policy Considerations

- **Permit flexibility**
  - City council permit broad curb management framework and a range of fees
  - Allows planners to easily test and adapt
- **Track legislation**
  - Efforts to limit local control and data access
- **Consolidation of companies**
  - Can limit options and leverage
- **Partnerships**
  - Are curbs the next public-private partnerships?
    - Need to align public and private sector goals
    - Could bring innovation and access to capital
  - Evaluate long term considerations
  - Lessons from public private partnerships
    - Public “owns” the curb
  - Data and privacy
Walker’s Curb Management Research Project

- Testing curb management technology
- Pilots with cities of all sizes to solve a curb issue
- Data collection to model curb demand:
  - Location, land use, modes available
  - Average peak hour demand
  - Peak of the peak hour demand
  - Weekday/weekend
  - Dwell times

Outcome
- Evaluate technology
- Curb design models and treatments based on:
  - Density
  - Land Use
  - Geography
  - Users
06 Group Activity
Questions?

For more information and resources:
https://walkerconsultants.com/service/planning-mobility/curb-management/

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