Curb Management with Smart Zones

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1/25/21
Busy Streets are Getting More Chaotic Due to Growth in Deliveries

2.1B
People expected to buy goods online
2021

17%
Projected e-commerce annual growth rate
2019 - 2023

36%
Increase in delivery vehicles in top 100 cities globally
2019 - 2030

As a Result We’re Seeing Far Too Many.

Blocked Crosswalks & ADA Ramps
Traffic Obstructions
Blocked Bus Routes
Blocked Bike Lanes
And to take the cake... 

The Combo! Obstructed Traffic Resulting in Blocked Crosswalk and Wrong-Way Travel
This Isn’t Good for Fleets Either:
They Are Wasting Time, Money and Energy In The Last Mile

- 28% Commercial driver trip time is searching for parking (2020)
- $23M UPS parking ticket bill with NYC (2019)
- 23% Carbon emissions attributed to freight trucks (2017)

Sources: University of Washington, Yahoo, New York Times
Photo: The New York Times
A Powerful Tool to Make Our Streets Safer and More Efficient

SMART ZONES.
Smart Zones Provide **Commercial Drivers** with Incentives and Information to Navigate Directly to Available Smart Zones

* Asset-light approach. No electronic circuits required*
Smart Zones Provide **Cities** with Tools and Data to Dynamically Manage and Price Curb Space

- Shift loading to safe and legal locations
- Know when and where you need space
- Use pricing to manage demand
- Communicate directly with fleets
Smart Zones Help Cities Transition Space to Meet Today’s Needs

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<th>Shared Use:</th>
<th>Micromobility</th>
<th>Smart Zone - Commercial Loading &amp; Pick-up Drop-off</th>
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<td>5</td>
<td>1.25</td>
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Total Revenue: $453
Cost per Person: 386 ppl

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</table>

Total Revenue: $324
Cost per Person: 53 ppl

Sources: Parking and loading rates are for City of Chicago 2020. Usage rates from NACTO and expert input.
Commercial Driver Experience

FIND

ROUTE

BOOK

PAY

MANAGE
Enforcement Officer Experience

SCAN

APPROVE

TICKET

RESPOND
Parking Manager Experience

COORD

MONITOR

ALLOCATE

ANALYZE
Live Smart Zone Cities

Omaha, Nebraska

West Palm Beach, Florida

Aspen, Colorado

Nashville, Tennessee
Case Study: Aspen, CO
Aspen Program Overview
Smart Zone Rollout Process

Project Team:
- Mitch, Jeff and Blake (Aspen)
- Dawn, Kenny and Doneliza (Coord)

Timeline:
- 3 months planning
- 3 months initial period

Team worked together on:
- Project Management
- Program Design
- Stakeholder & Partner Engagement
- Outreach Materials
- Evaluation + Data
  - Video footage for evaluation
- Training (staff + partners)
- Fleet Customer Service
Aspen Smart Zone Adoption: 80 Days In

- 34 fleets

- 118 drivers have signed up
  - 53% work for a fleet
  - 77% booked at least once
  - 63% booked 2+ times

- 1,020 total bookings by 91 drivers

*As of 1/24/21
Aspen bookings have grown steadily, with a slight post-holiday/COVID drop.

*CAs of 1/24/21*
Using Key Stats to Inform Curb Allocations, Time of Day

- 64% of bookings happen before noon
- Dwell time graph suggests that as demand increases and the day gets later, dwell time decreases
- May add zones at busy times, and revert existing ones to other uses (e.g., parking) at quiet times

*as of 1/24/21*
Using Key Stats to Inform Curb Allocations, Zone Usage

Total Bookings by Zone (by Hour)

- The top 2 zones (of 11) in Aspen represent 30% of all bookings. Alleys represent 34% of all bookings.
- Learned Tuesday is a surprisingly busy day.

*as of 1/24/21
Using Key Stats to Inform Curb Allocations, Booking Times

Total Bookings, by Amount of Time booked

- Before 9AM, most drivers book for an hour (or more). After 9AM, the majority book for 30 minutes or less.
- After 2PM, as fleet types shift, most book for 15 minutes.
- 52% of bookings are for 30 min. or less.
  - Drivers choose to extend bookings 11% of the time.

*as of 1/24/21
What have we learned so far?

- **Site selection**
  - Start with popular zones; create a critical mass

- **Fees**
  - Drive fleet and driver engagement

- **Outreach**
  - Proactive street outreach + warnings can drive adoption
  - Use drivers to connect to fleet managers
  - Enforcement and accommodating special cases can bring mid/late adopters on board
    - Added more information about scanned vehicles to enforcement view

- **Driver and fleet onboarding:**
  - Needs to be seamless
    - Added driver-fleet auto-linking feature
  - Needs to accommodate small players
    - Adding bank transfer as additional payment option
What’s Next in Aspen?

- Extending pilot
- Adding zones
- Modifying zones based on data
- Continued evaluation
  - Fleet/driver feedback
  - Coord data
  - Camera-based evaluation
What’s Next for Smart Zones?

- New insights from ongoing pilots
- Greater automation for drivers
- Technical integrations
- New use cases/features, such as:
  - Variable pricing
  - Tourist and charter buses
  - Mobile vending
- Digital Curb Challenge 2021

www.coord.com/digital-curb-challenge
THANK YOU!

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