Curb Your Transportation

an overview of ITE's curbside management work

Sarah Abel, Technical Programs Manager
MWCOG, November 19, 2019

What is Curbside Management?

Drivers, both TNC and non-TNC

Pedestrians and crossing infrastructure

Mobile vendors

Emergency services

Parked vehicles and electric vehicle (EV) charging

Couriers and delivery vehicles

Transit and transit infrastructure

Taxis, transportation network companies (TNCs), and shuttles

Micromobility

Bicycles and bicycle infrastructure

Local businesses

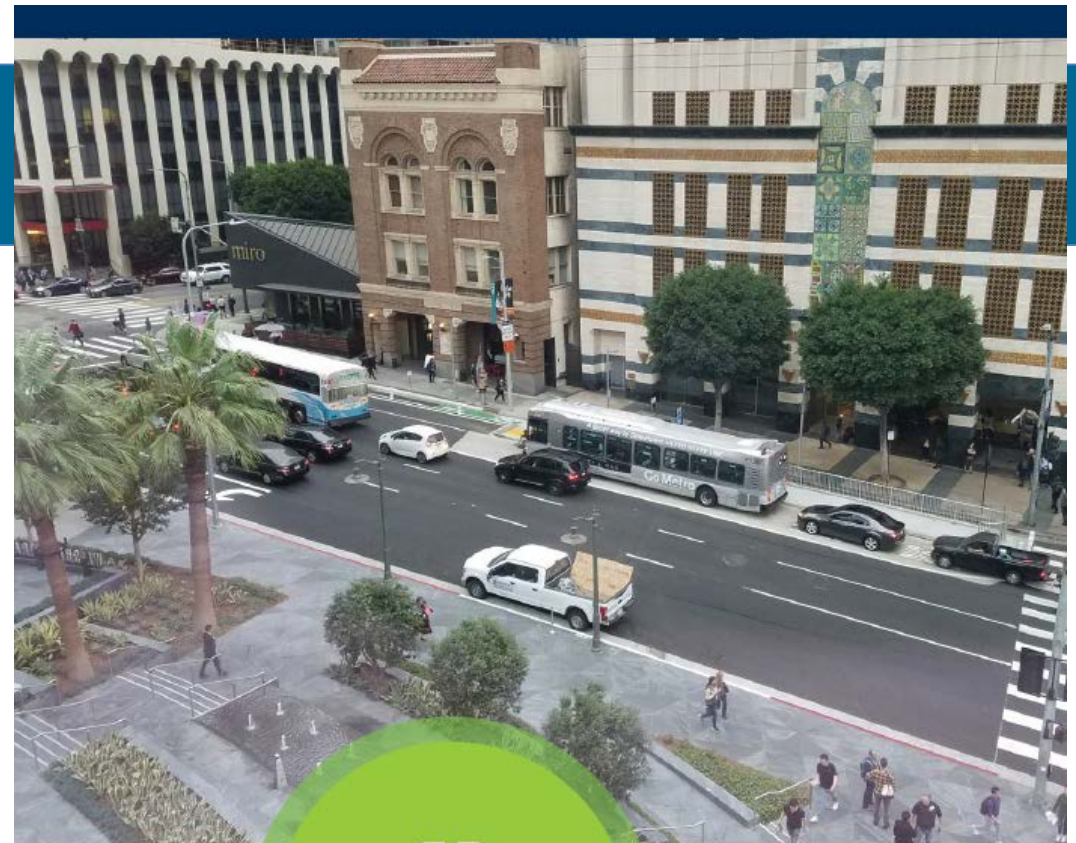ADA access

Parklets and streetscape

Freight

ITE Practitioners Guide

Developed by the

Curbside Management looks at
3 ROW zones...not just the curb
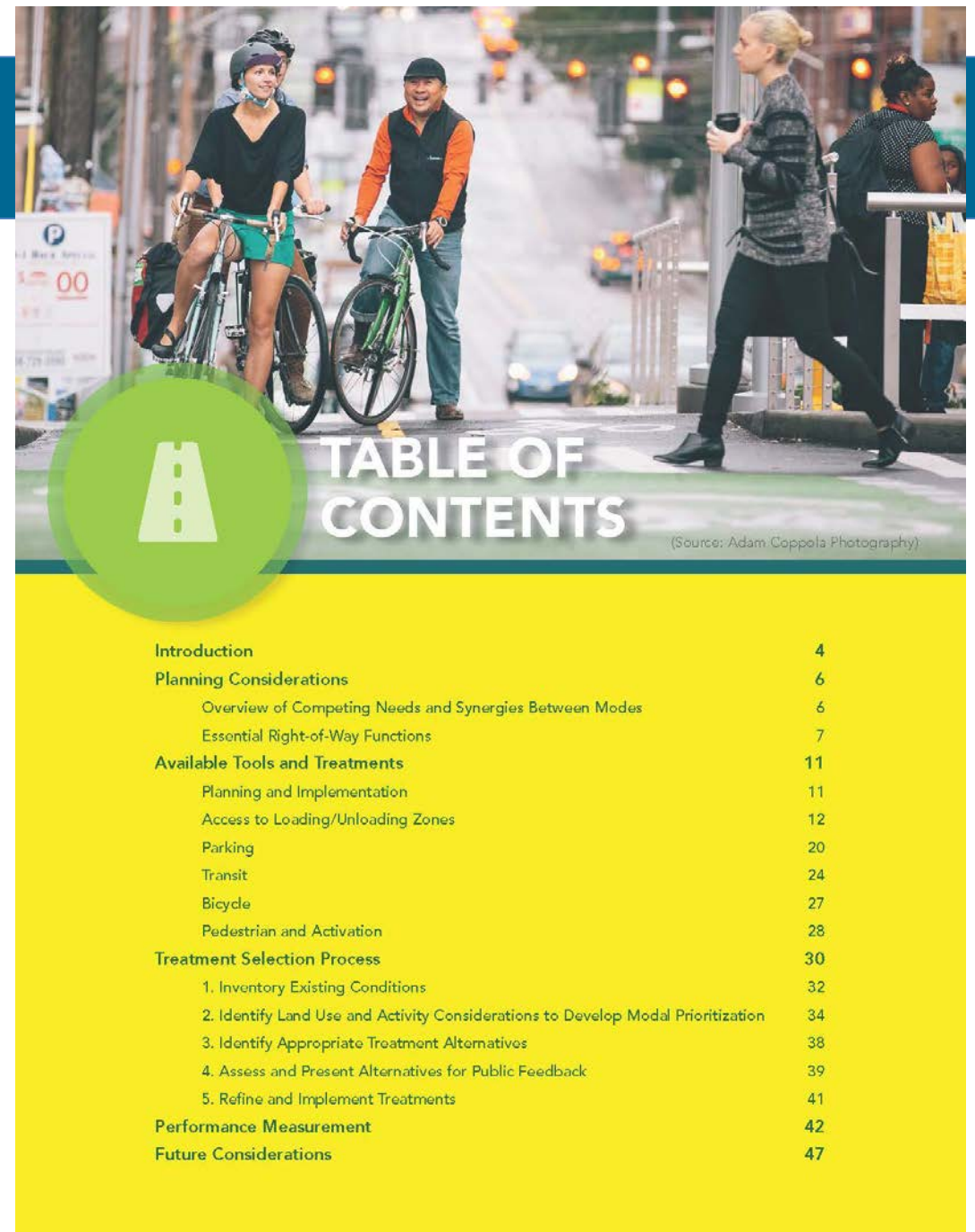

(Source: Seattle Department of Transportation)

Introduction to the Guide

- What is Curbside Management?

- Available Tools and Treatments

- Treatment Selection Process

- Performance Measurement

- Future Considerations

- Additional Resources

- Implemented Strategies and Projects

TABLE OF CONTENTS
(Source: Adam Coppola Photography)

What is Curbside Management?

FUNCTION	DEFINITION	USES
MOBILITY	Moves people and goods	• Sidewalks • Bus or streetcar lanes • Bike lanes • General purpose travel lanes - includes freight • Right- or left-turn only lanes
ACCESS FOR PEOPLE	People arrive at their destination, or transfer between different ways of getting around	• Bus or rail stops • Bike parking • Curb bulbs • Passenger load zones • Short-term parking • Taxi zones
ACCESS FOR COMMERCE	Goods and services reach their customers and markets	• Commercial vehicle load zone • Truck load zone
ACTIVATION	Offers vibrant social spaces	• Food trucks • Parklets and streateries • Public art • Seating • Street festivals

GREENING	Enhances aesthetics and environmental health	• Plantings
		  - Boulevards
		  - Street trees
		  - Planter boxes
		• Rain gardens and bio-swales

STORAGE	Provides storage for vehicles or equipment	• Bus layover • Long-term parking • Reserved spaces (e.g. for Police or other government use) • Construction

(Source: Seattle Department of Transportation)

Available Tools and Treatments

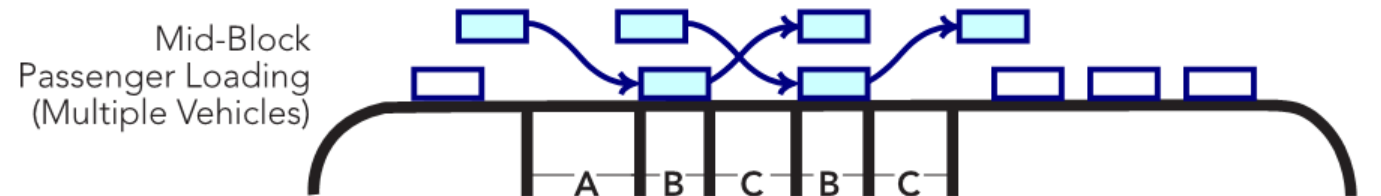1. Planning and Implementation

2. Access to Loading/Unloading Zones

3. Parking

4. Transit

5. Bicycles

6. Pedestrians and Activation

Access to Loading/Unloading Zones

Passenger Access

- Identifying Demand
- Geofencing

(Source: Fehr & Peers)

Mid-Block Passenger Loading

Beginning of Block Passenger Landing

End of Block Passenger Loading

Mid-Block Passenger Loading (Multiple Vehicles)
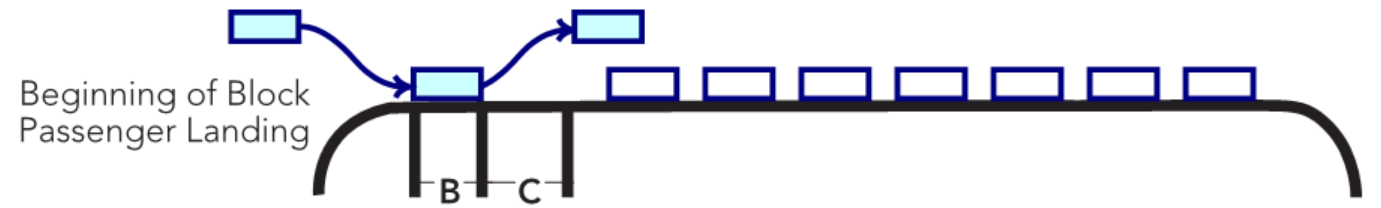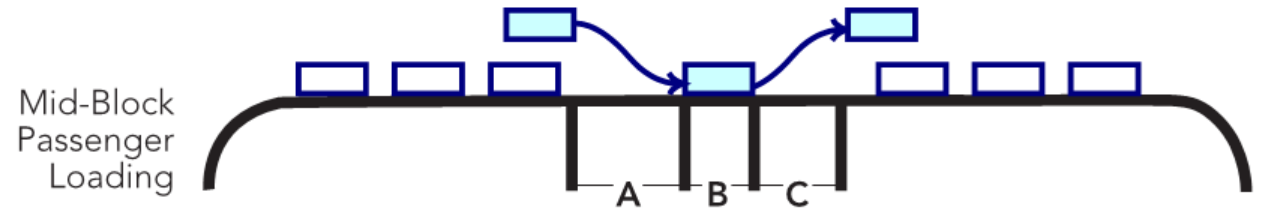
Treatment Selection Process

1. Inventory Existing Conditions

2. Develop Modal Prioritization

3. Identify Treatment Alternatives

4. Assess and Present Alternatives

5. Refine and Implement Treatments

Inventory Existing Conditions

(Source: Coord)

- Policies and Codes

- Supply, Demand and Utilization

- Needs and Opportunities

(Source: SharedStreets)

Treatment Selection Process

(Source: City of Chicago)

1. Inventory Existing Conditions
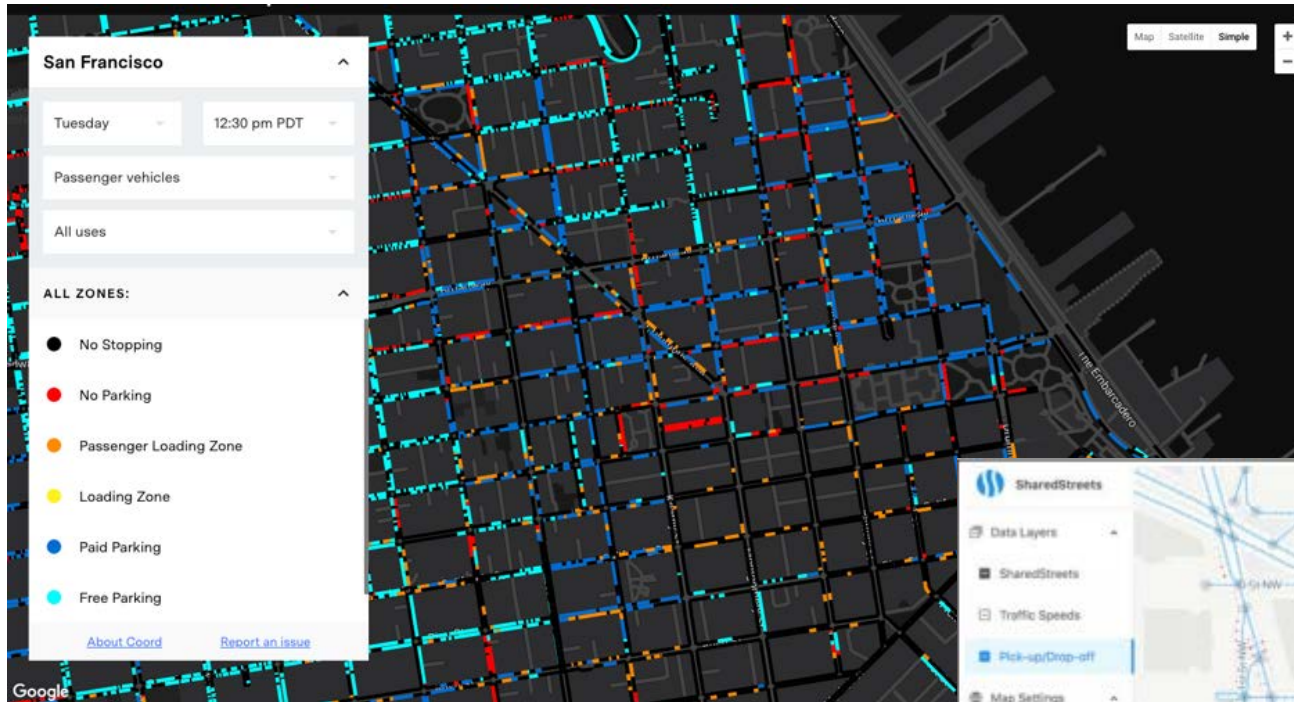
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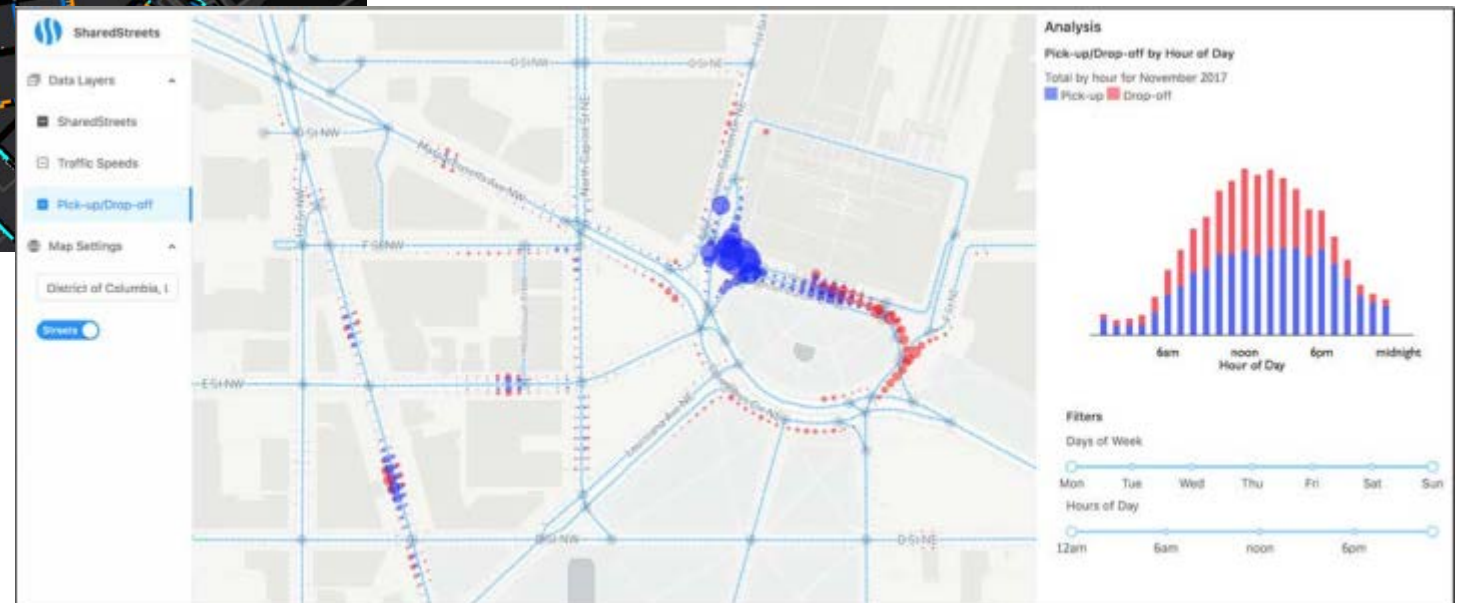
5. Refine and Implement Treatments

(Source: Fehr & Peers)

Treatment Selection Process

(Source: Seattle Department of Transportation)

Treatment Alternatives

BIKE SHARE STATION — 40 riders/day

FOOD TRUCK — 150 meals/day, $800–1800 income/day

PARKLET — 100 visitors/day, 10–20% revenue boost to nearby businesses

LOADING ZONE — 20 deliveries/day supporting $10,000 in daily sales per block

PARATRANSIT & ACCESSIBLE LOADING — Serving 19% of the US population

METERED PARKING SPOT — 15 vehicles/day

BUS STOP — 1,000 riders/day

PASSENGER DROP-OFF ZONE — 100 passengers/day
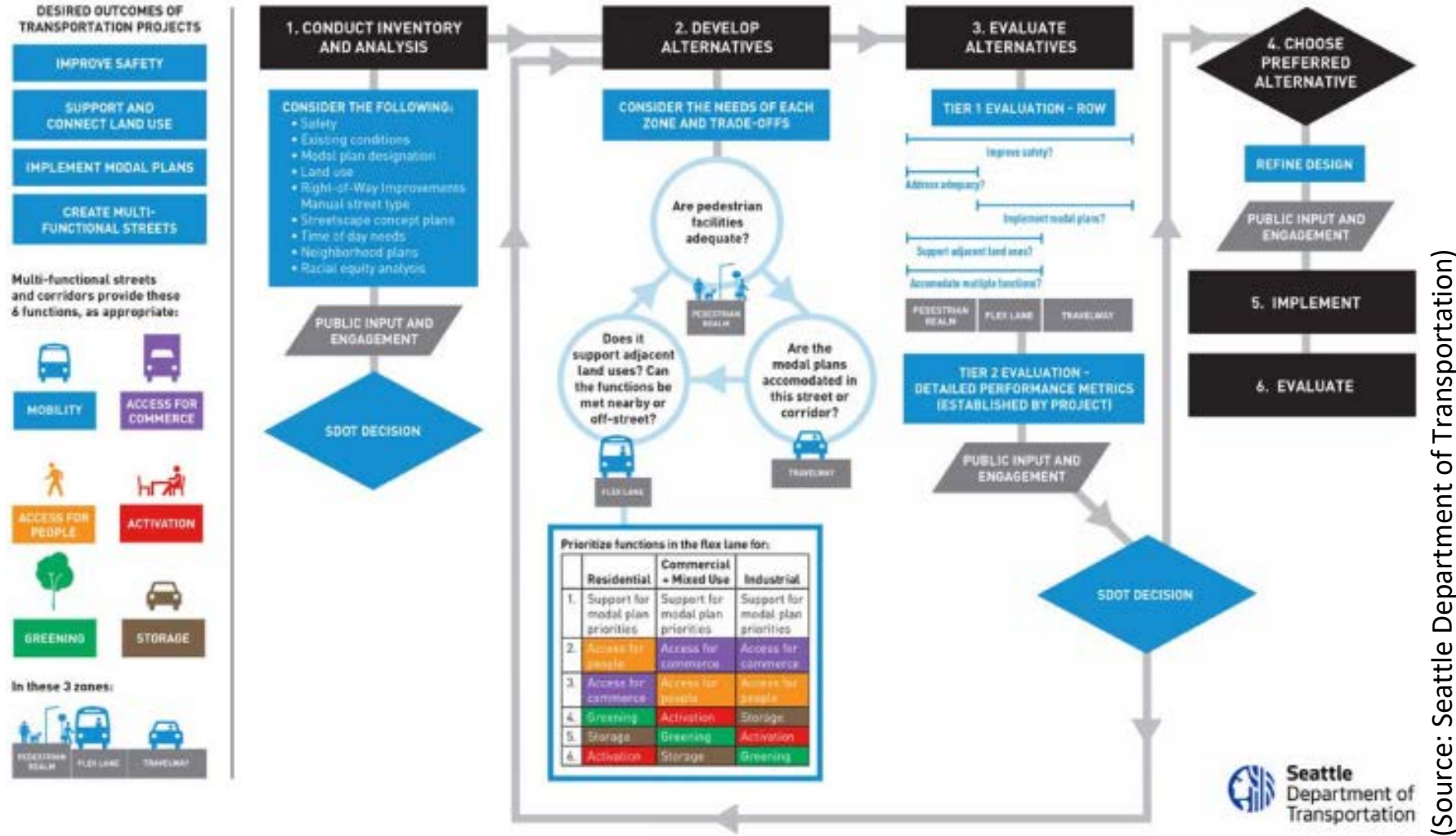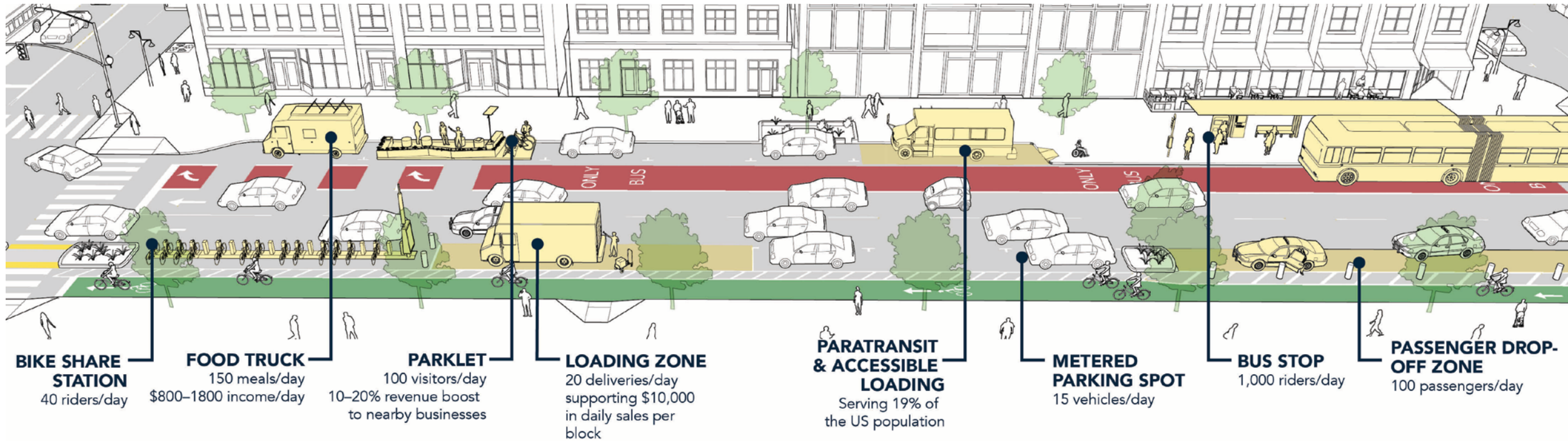
(Source: NACTO Curb Appeal)

Performance Measurement

- Mobility

- Livability

- Accessibility

- Safety

- Efficiency

- Economic Vitality

Performance Measurement

- Mobility
- **Livability**
- Accessibility
- Safety
- Efficiency
- Economic Vitality

LIVABILITY

Measure Of Effectiveness (MOE)	Dataset(s)
Additional park/green space provided	Amount of green/park space available citywide, by neighborhood – data inventory
Additional bicycle parking provided	Amount of short-term and long-term bicycle parking – data inventory
Additional seating/ community gathering space provided	Amount of seating/ community gathering space available citywide, by neighborhood – data inventory
Enhanced public space activation	Calendar of community events Permit requests

Performance Measurement

- Mobility
- Livability
- Accessibility
- **Safety**
- Efficiency
- Economic Vitality

SAFETY

Measure Of Effectiveness (MOE)	Dataset(s)
Fewer consequences of curb access events (i.e., vehicles swerving, bicycles swerving mid-block U-turns, and mid-block crossings)	In-person observations (anecdotal) Video data collection
Less risky consequences of curb access events(i.e., less likely to affect vulnerable users or their infrastructure, less likely to be high-speed)	
Fewer near-miss incidents	Video detection (i.e., Bellevue/ Microsoft) On-board vehicle data on driver behavior (i.e., ZenDrive technology)
Fewer curb-access-related collisions	Local or statewide collision datasets (medium to long term)
Reduced ped/bike conflicts with heavy trucks	In-person observations Video data collection
Reduced moving vehicle violations	Police data on citations for stop sign, red light, crosswalk intrusion, and speeding violations

Performance Measurement

- Mobility

- Livability

- Accessibility

- Safety

- Efficiency

- **Economic Vitality**

ECONOMIC VITALITY

Measure Of Effectiveness (MOE)	Dataset(s)
Additional café/ restaurant seating provided	Permits
Staff time coordinating deliveries reduced	Feedback from business owners via survey or focus groups
More disabled loading and parking zones provided on street	Asset management system database
Improved sales receipts	Tax/ sales data
Enhanced availability and convenience of loading zones	Feedback from business owners via survey or focus groups

Case Studies

CASE STUDY

SAN FRANCISCO, USA

San Francisco Municipal Transportation Agency (SFMTA) | URBAN

REGULATION OF CURBSIDE SUPPLY AND DEMAND/
TNC AND CITY PARTNERSHIPS

CASE STUDY

WASHINGTON, D.C., USA

District Department of Transportation (DDOT) | DISTRICT-WIDE

STUDY AND PILOT PROJECTS

CASE STUDY

TORONTO, ONTARIO, CANADA

City of Toronto | DOWNTOWN CENTRAL BUSINESS DISTRICT

NEIGHBORHOOD POLICY

Future Considerations

- Dynamic curbs

- Increased Dynamic Management technologies

- Enhanced Communication

- Changes in land use

- Improved Data Management

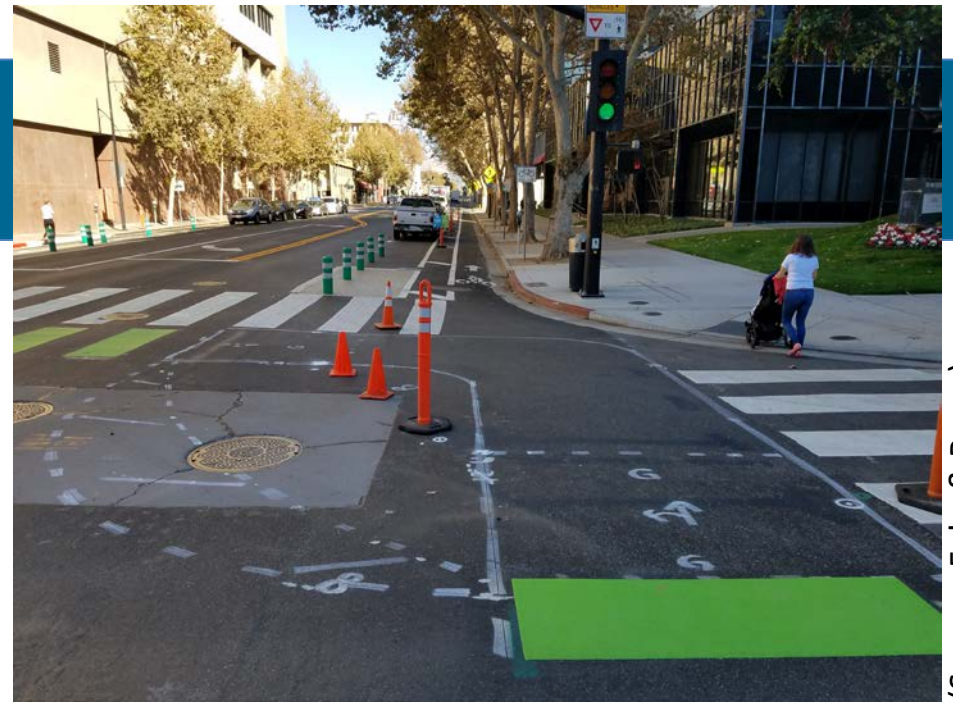- Micromobility and devices TBD

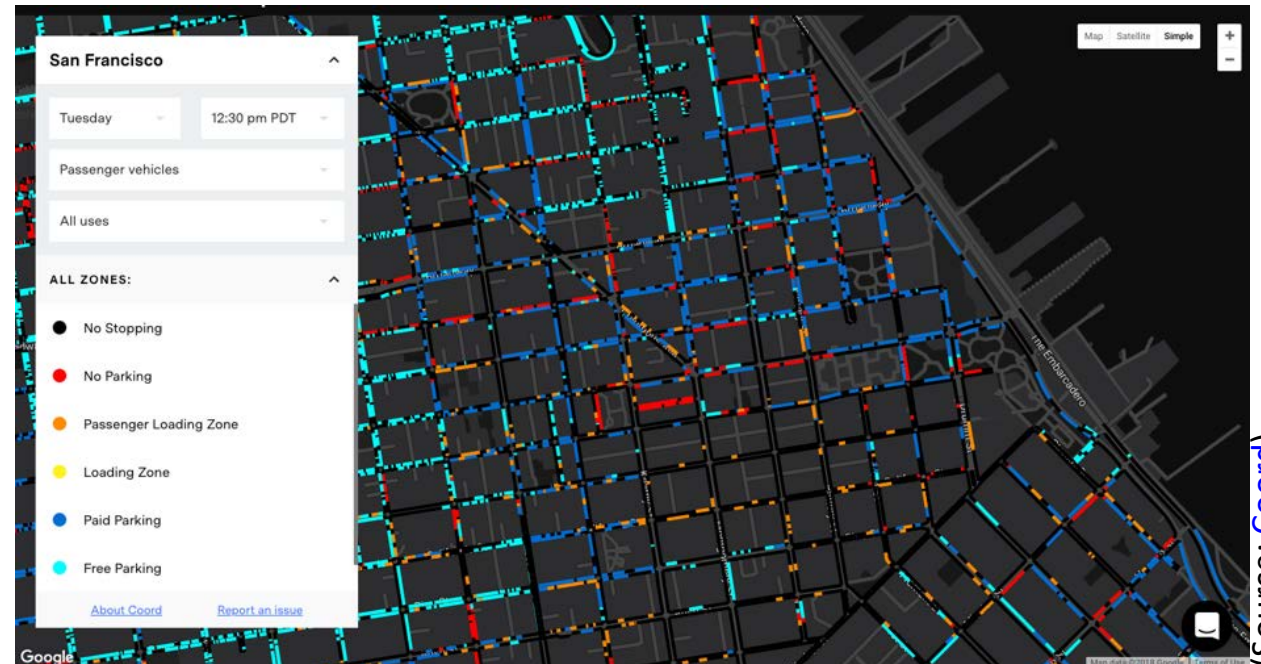- Swtich points and hubs

(Source: Fehr & Peers)

(Source: Austin Transportation Department)

Monitoring Implementation

- Monitor the curbside evolution

- Adjust the curb using performance measures

- Learn from peers and case studies

- Apply open source tools
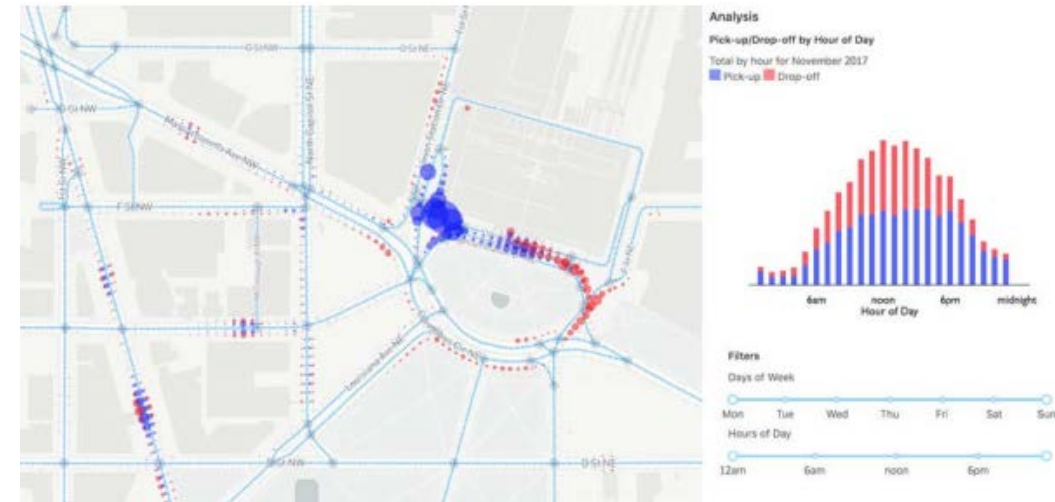
- Develop plans and policies

(Source: Fehr & Peers)

(Source: Coord)

Additional Resources

- On Demand webinar **[Introducing ITE's New Curbside Management Practitioners' Guide](#)**

- **STAY TUNED!** **Curbside Management Analysis Resources**

  - A **NEW!** Report on Curbside Management Analysis

  - Curbside Analysis GIS-based Tool to guide allocation of the curb

  - Will be doing a call for curbside case studies in **2020!**

(Source: [SharedStreets](#))