



Google Earth Image

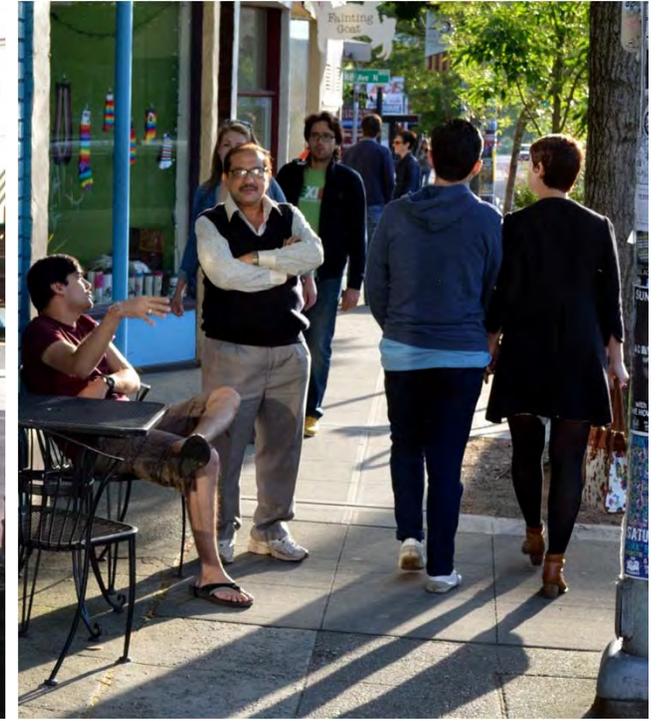
# Westlake Cycle Track Project



Design Advisory Committee Meeting #2  
April 7, 2014

# SDOT's mission and vision

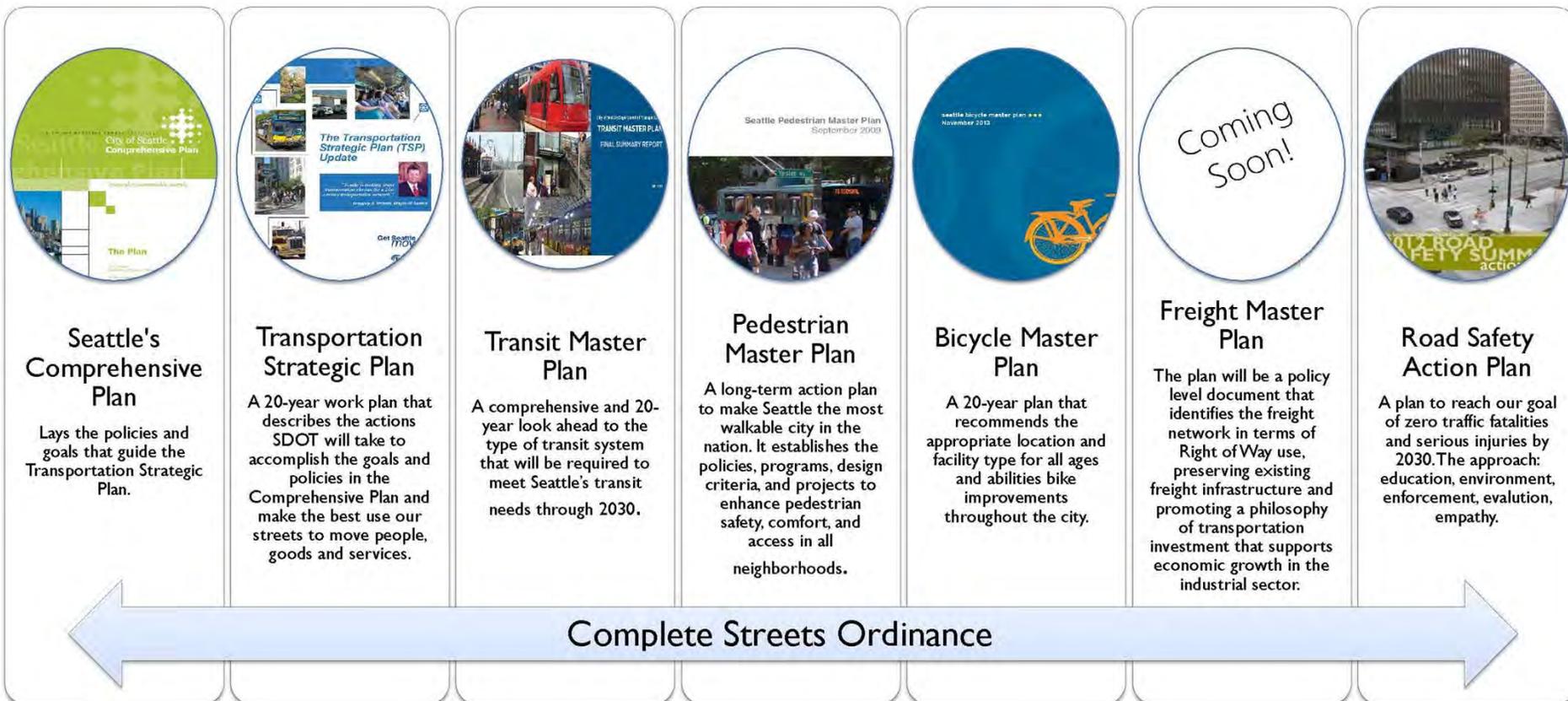
Mission: Deliver a safe and reliable transportation system that enhances Seattle's environment and economic vitality.



Vision: A vibrant Seattle with connected people, places, and products.

# SDOT's values





# Westlake Cycle Track Project

## Related City of Seattle Planning Documents

# Presentation preview

- Data Collection and Observation



- How Studies Will Inform Design

# 1. EXISTING CONDITIONS AND DESIGN CRITERIA MEMO

Purpose:

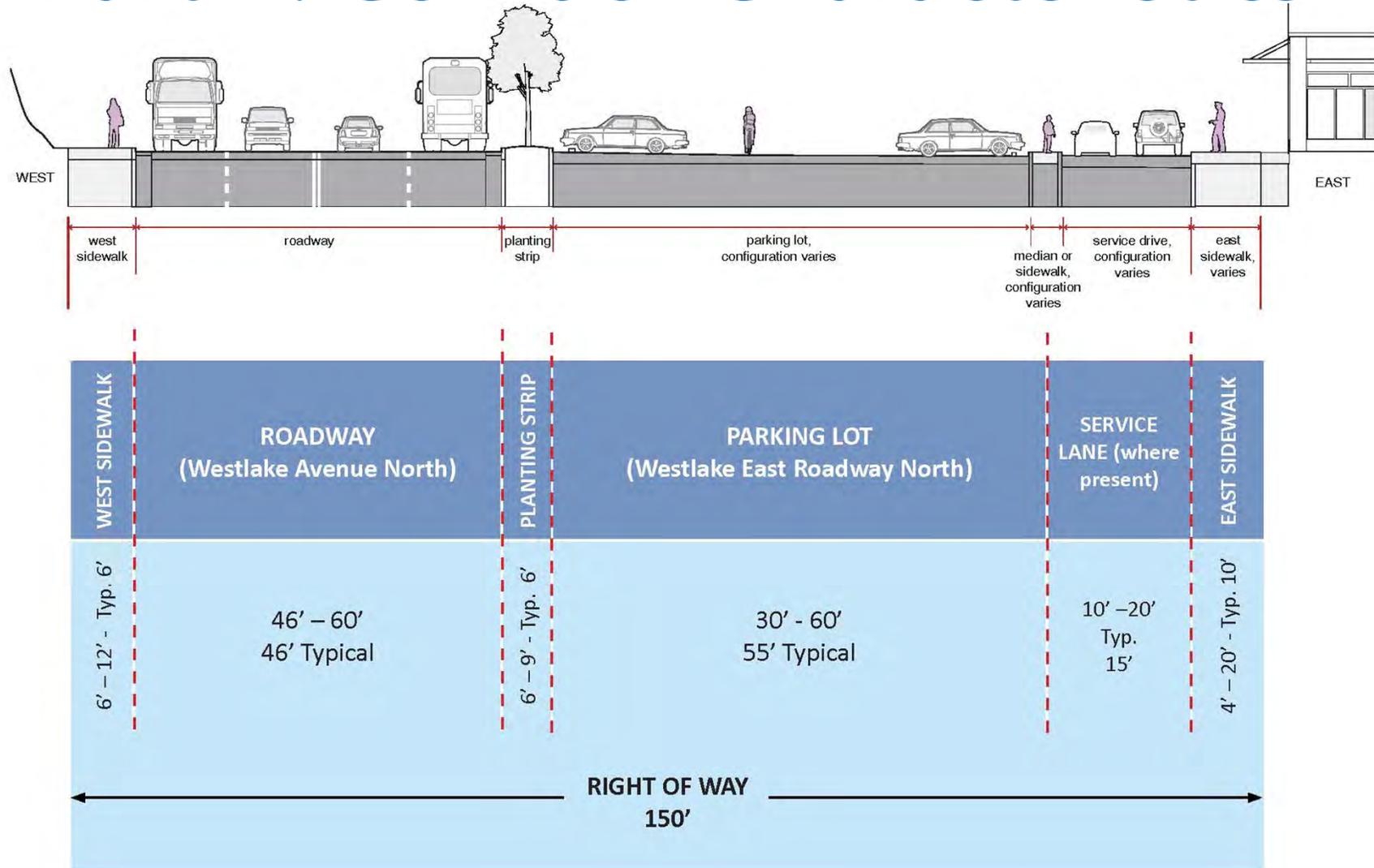
Part A: Document Existing Conditions

Part B: Establish Design Criteria



# 1. Existing Conditions and Design Criteria Memo

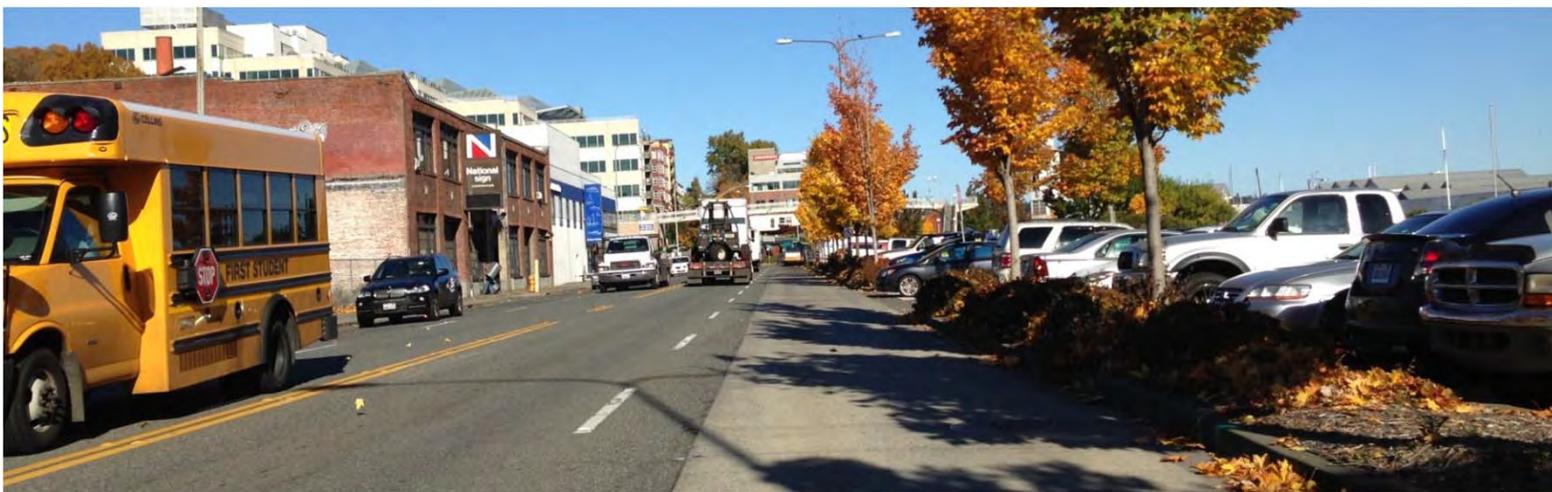
## Part A. Corridor Characteristics



## 1. Existing Conditions and Design Criteria Memo

# Westlake Avenue North

- Cross-section: 4 lanes of traffic, one sidewalk
- Major Truck Street
- Transit Route
- Traffic: 24,000 motor vehicles/day
- Posted speed limit is 35 mph



## 1. Existing Conditions and Design Criteria Memo

# Corridor Uses

- Offices
- Marine-related business
- Restaurants/food
- Tourism
- Marinas, including residential live-aboards and floating homes



## 1. Existing Conditions and Design Criteria Memo

# Parking Lot Uses

- Deliveries and loading
- Garbage collection



# 1. Existing Conditions and Design Criteria Memo

## Other Uses

- Public spaces



- Landscaping



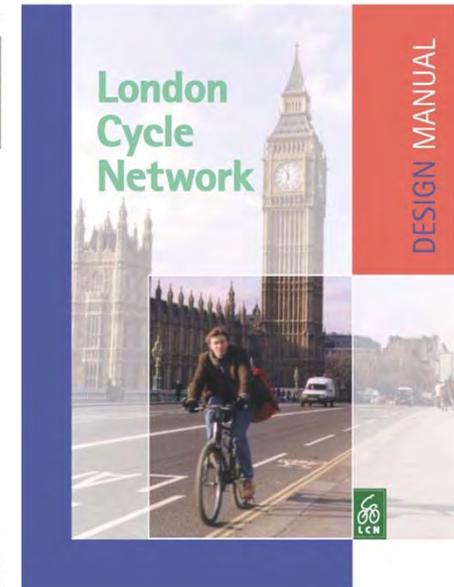
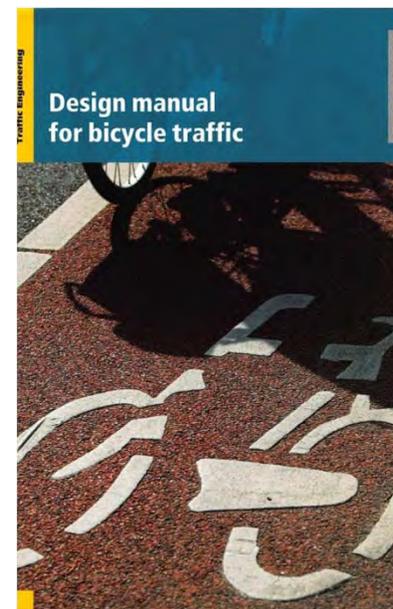
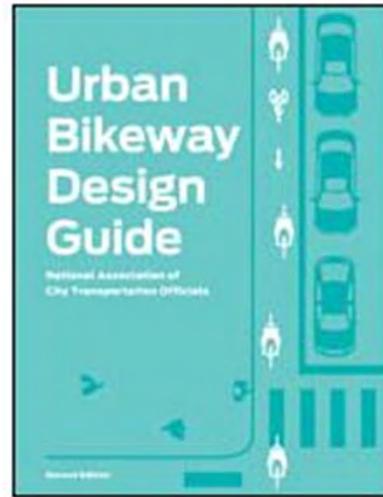
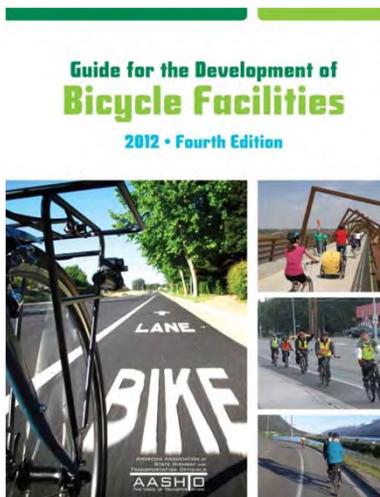
- Utilities



# 1. Existing Conditions and Design Criteria Memo

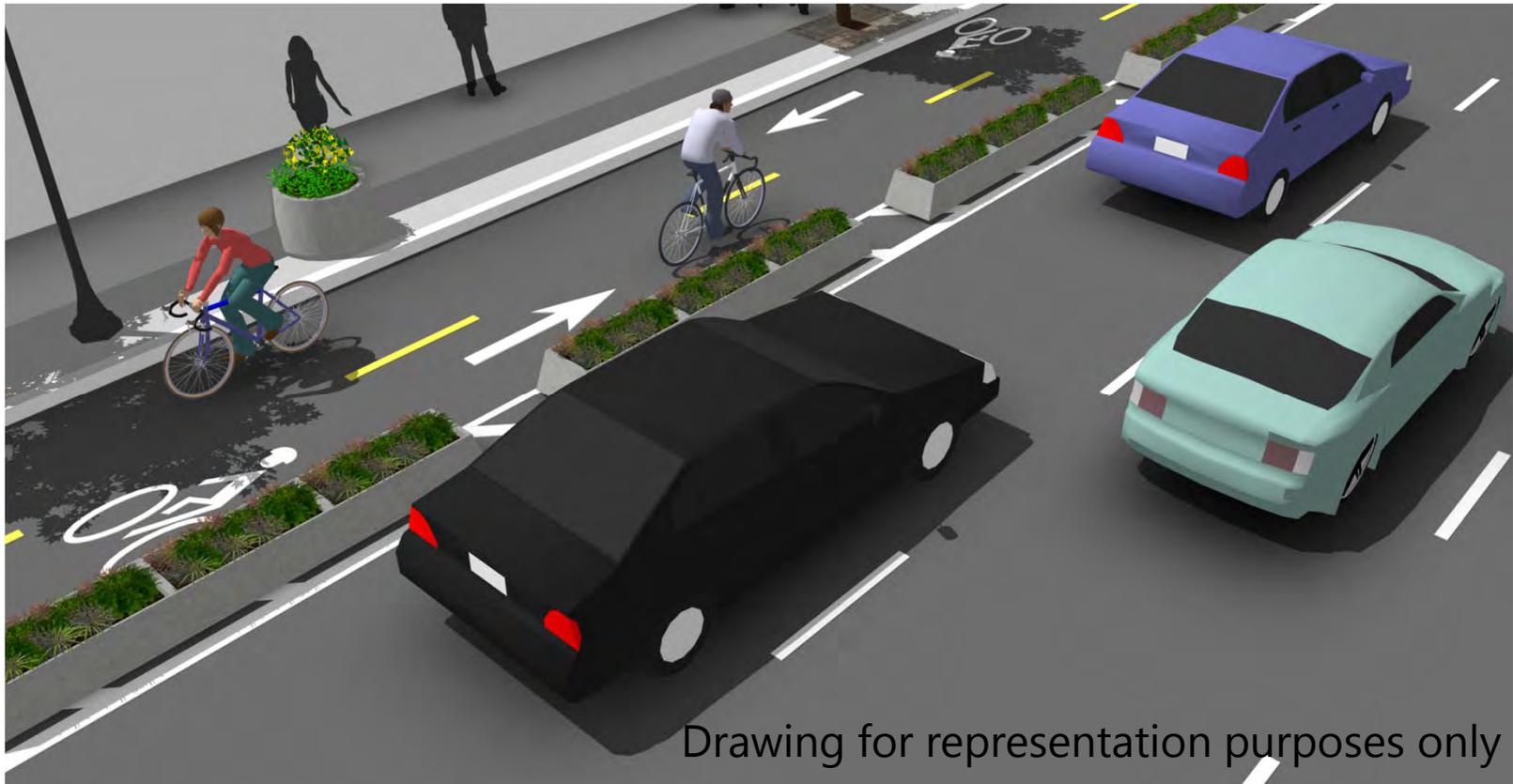
## Part B. Design Criteria

- SDOT
- National and regional sources



1. Existing Conditions and Design Criteria Memo

# Minimum cross section of 10' \*



12' preferred with 2' minimum separation

\*As dictated by corridor space constraints

## 1. Existing Conditions and Design Criteria Memo

# Design Speed of 10 mph

- All ages and abilities facility
- Dependent on context
- Affects geometry



Messaging and management techniques

## 1. Existing Conditions and Design Criteria Memo

# Design Crossings According to Use

- Crossing treatments specific to each crossing
- Vocabulary: Traffic control, pavement markings and signs per standards
- Other design considerations



Broadway protected bike lane: major intersection



Linden Avenue North protected bike lane: driveway crossing

## 1. Existing Conditions and Design Criteria Memo

# Design to Maximize Parking

- Tools: arrangement and orientation
- Drive aisle widths
- Two-way vs. one-way circulation

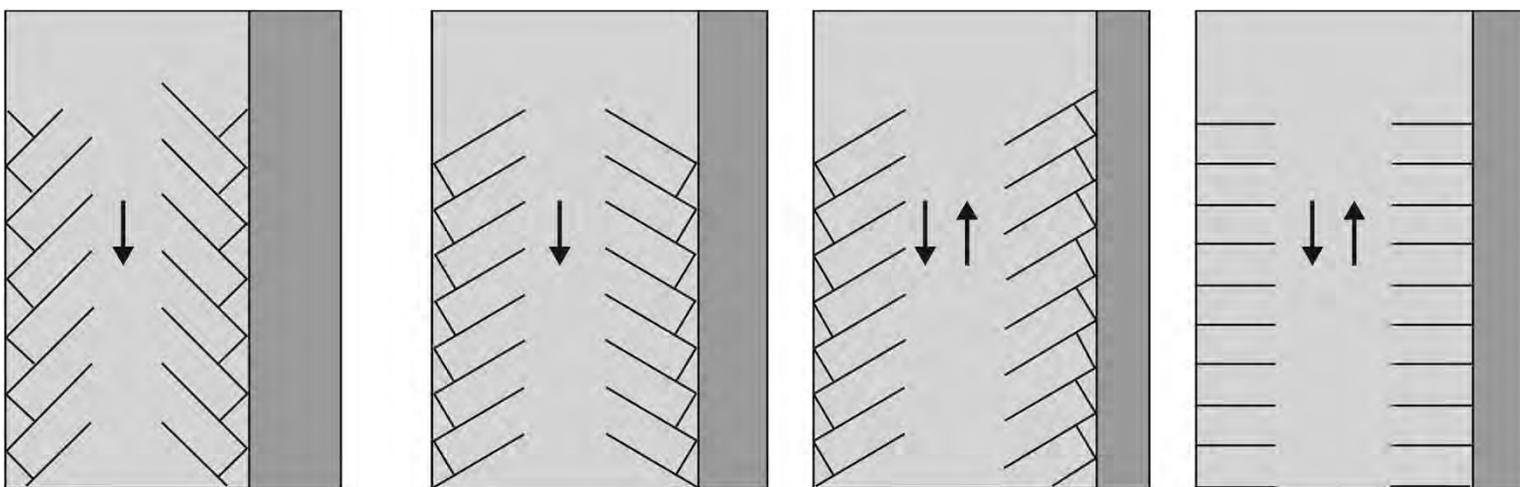


Diagram NOT TO SCALE

## 1. Existing Conditions and Design Criteria Memo

# Other Parking Design Considerations

- Accessible spaces, accessibility to buildings
- Marine uses, including residential and business
- Boat and trailer access
- Garbage collection and loading zones



1. Existing Conditions and Design Criteria Memo

Questions?

## 2. TRAFFIC CIRCULATION STUDY

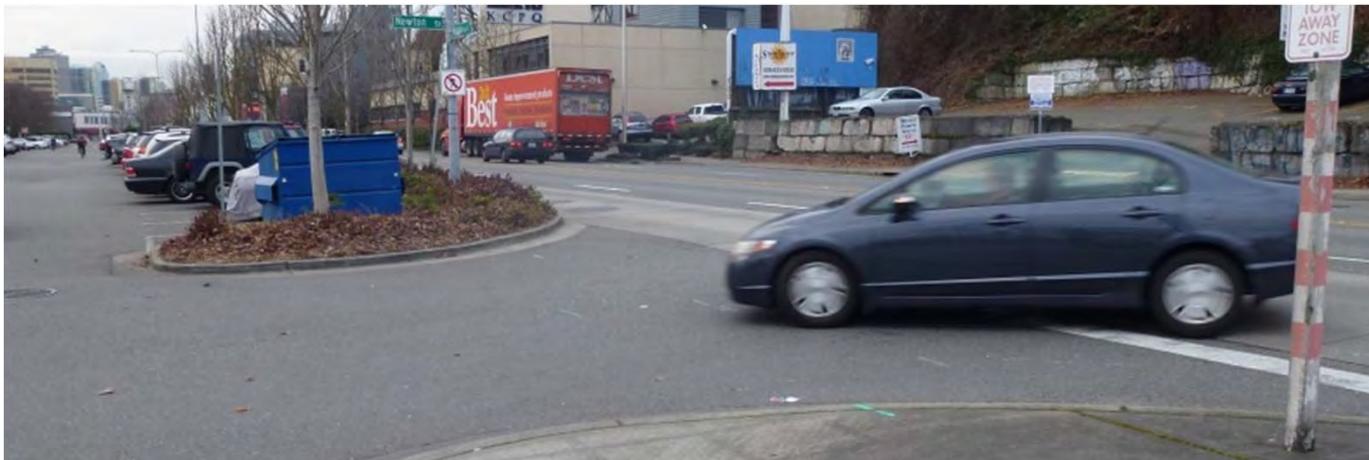
- Document movements for all modes
- Conduct motor vehicle, bike, and ped counts
- Observe and document physical conditions – how people are using the parking area



## 2. Traffic Circulation Study

# Study Elements

- Inventory of driveways/street ends, traffic control
- Turning movement counts into/out of parking area
- Parking drive/service drive counts
- Bike/ped counts via video
- SDOT roadway volumes/speeds, collision data



## 2. Traffic Circulation Study

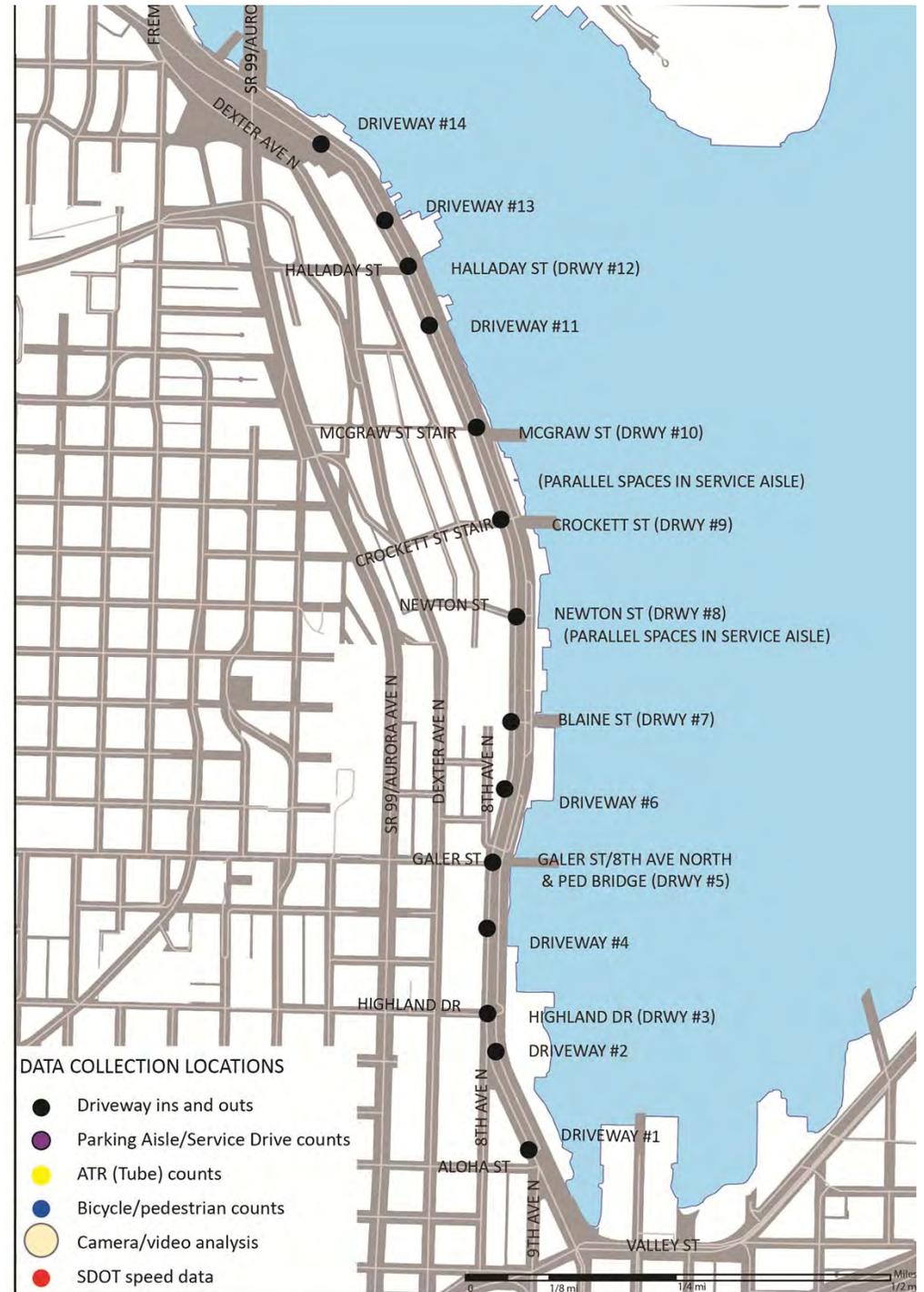
# Data Collection Locations and Times

- 3 weekdays, 1 Sat.
- Sept and Oct
- Varied times



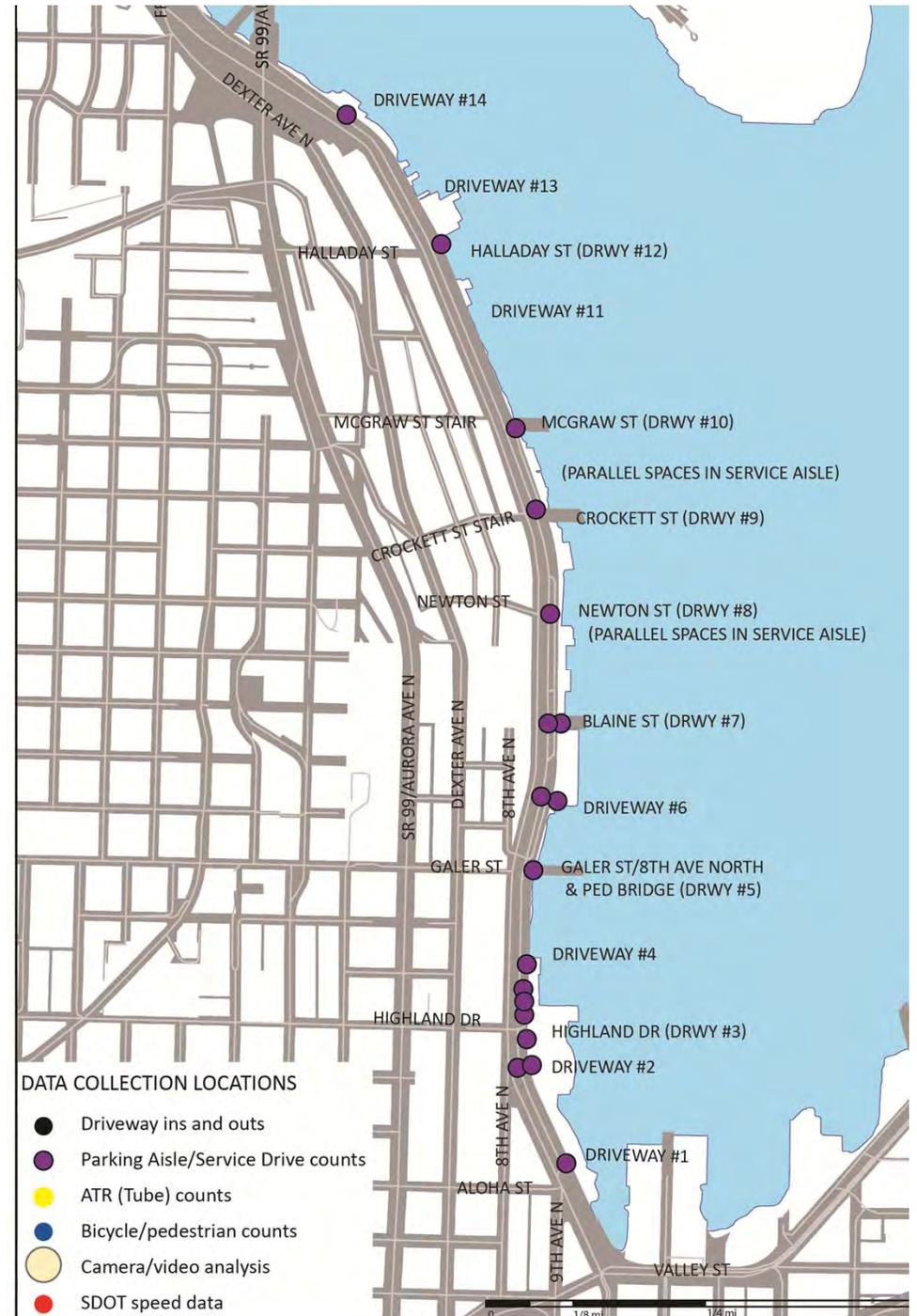
## 2. Traffic Circulation Study

# Driveway In and Outs Counts



## 2. Traffic Circulation Study

# Parking Aisle/ Service Drive Counts



## 2. Traffic Circulation Study

# Tube Counts, Video Analysis Areas



## 2. Traffic Circulation Study

# Bike/ped counts



## 2. Traffic Circulation Study

# Study Highlights

- Pedestrian volumes highest of all modes
- Driveway issues
- Two challenging mixing zones



## 2. Traffic Circulation Study

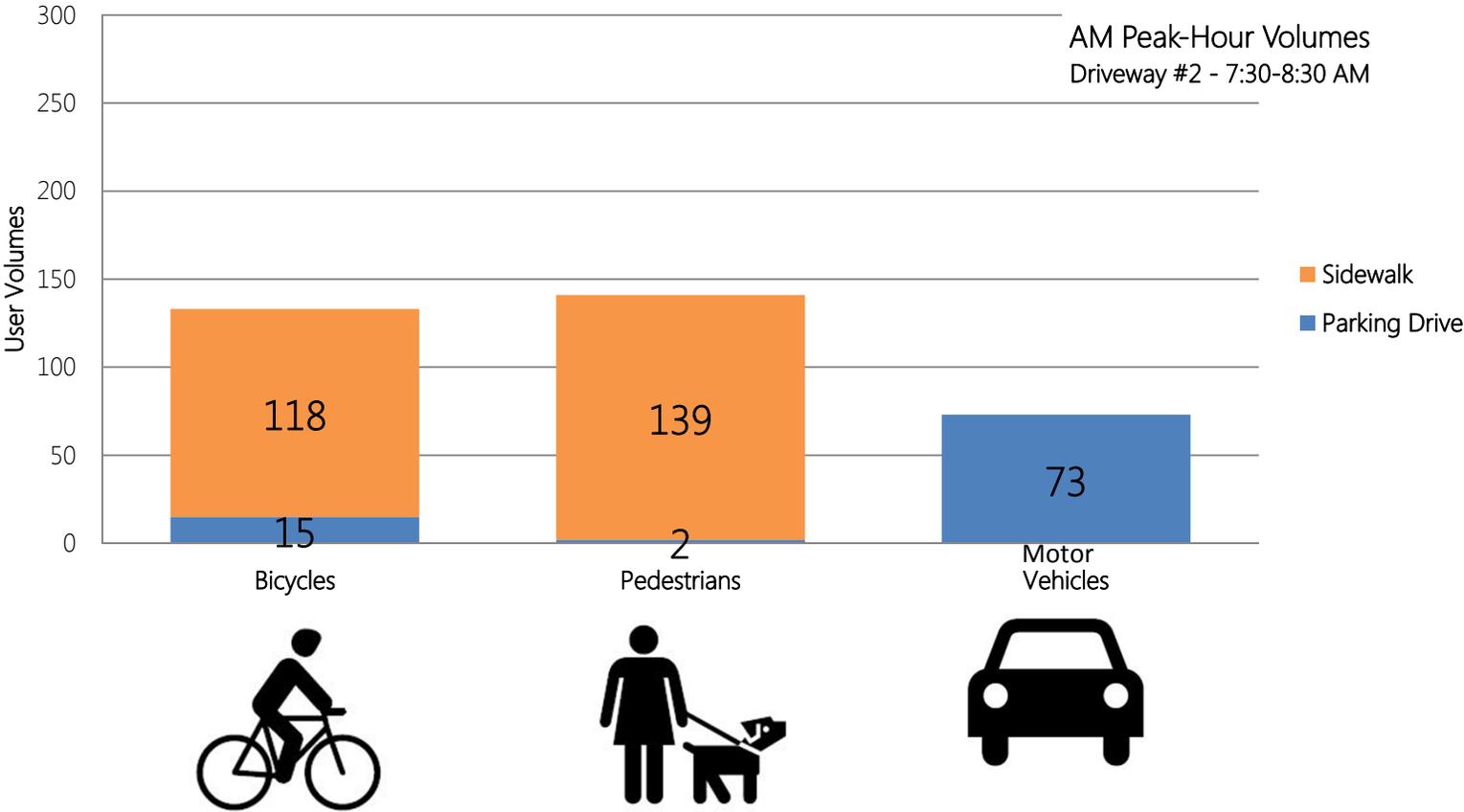
# Driveway Ingress/ Egress

- Highest use time is PM
- Highest volumes at south end



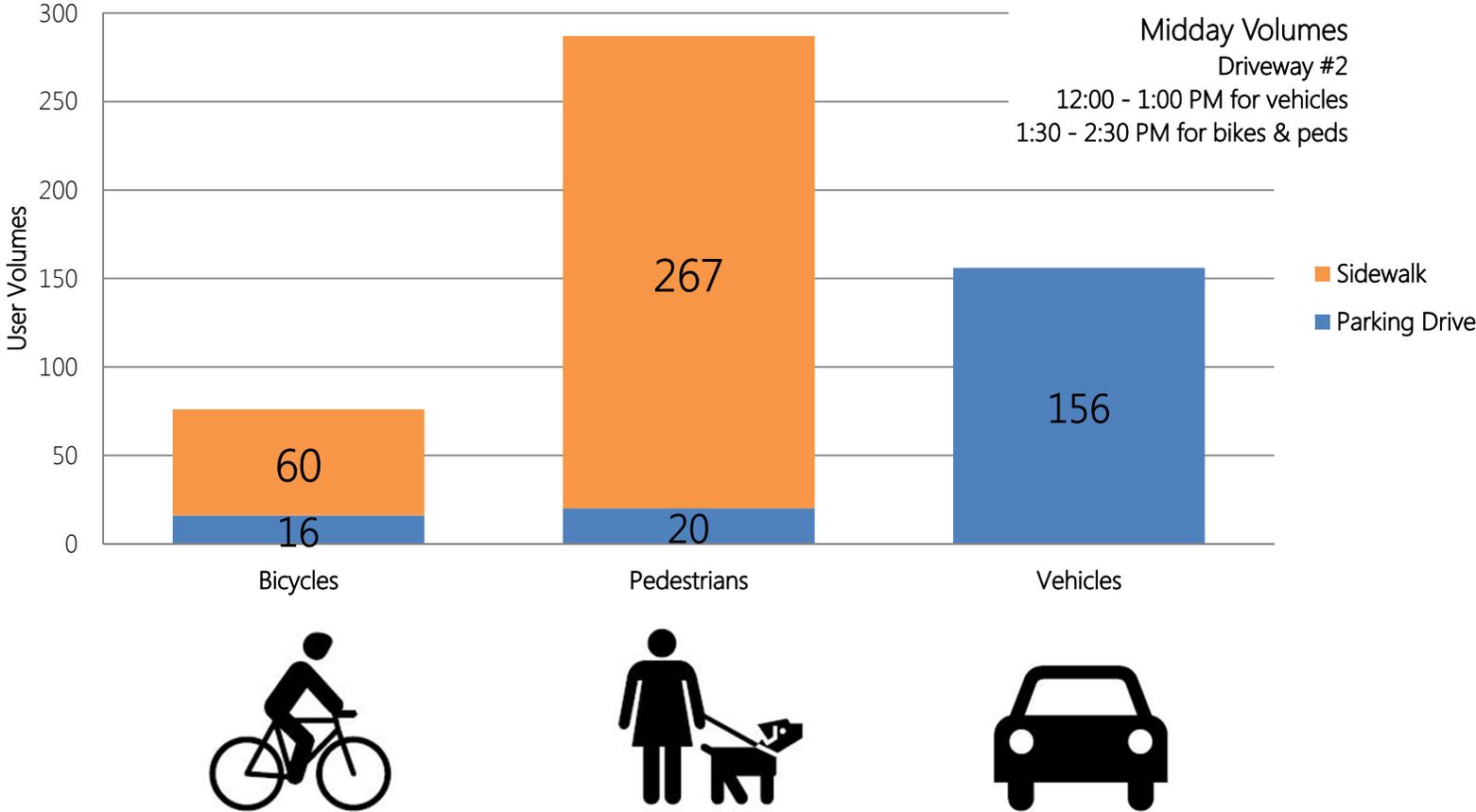
## 2. Traffic Circulation Study

# Counts - #2 Driveway –AM Peak



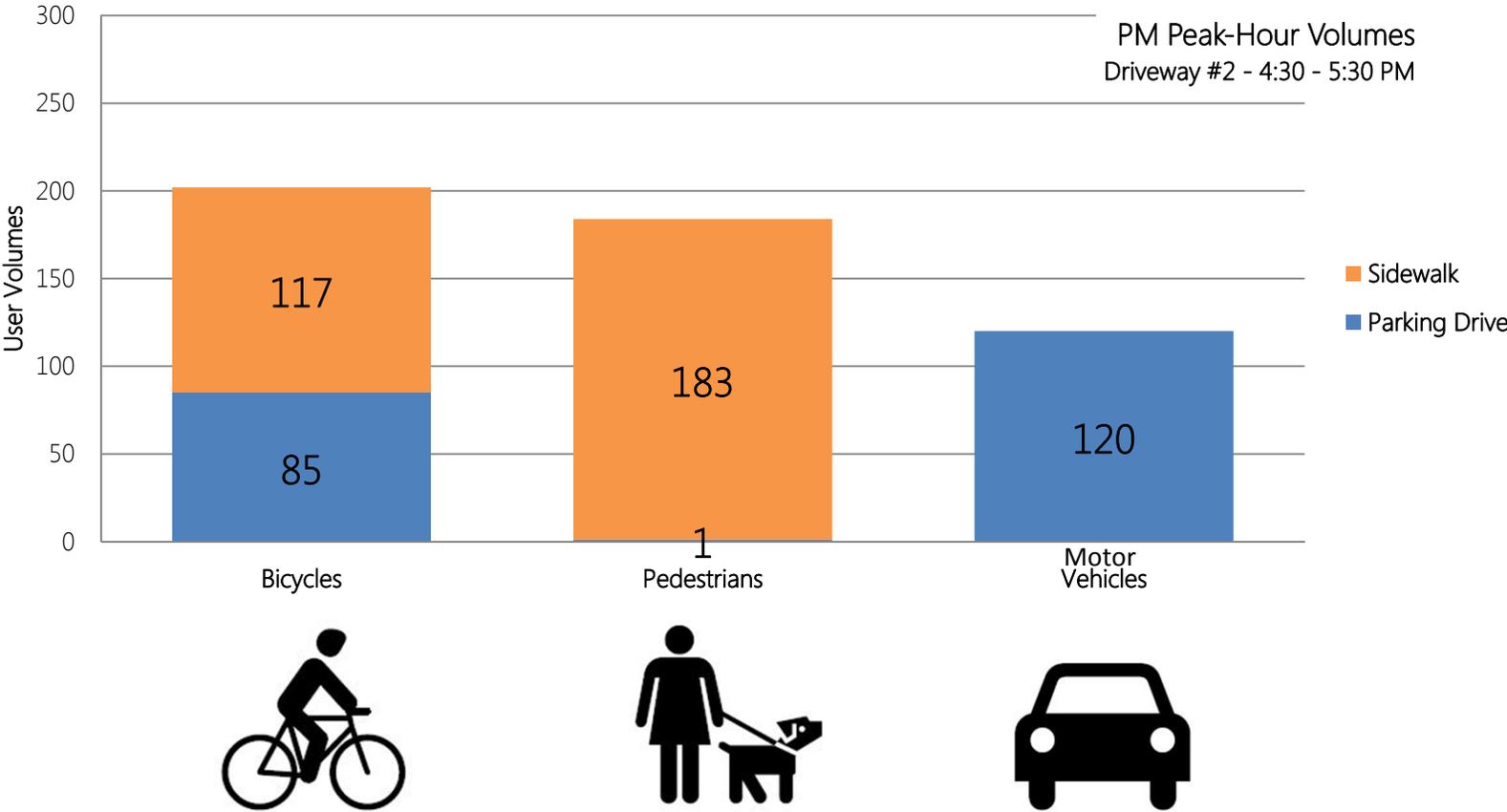
## 2. Traffic Circulation Study

# Counts - #2 Driveway –Midday Peak



## 2. Traffic Circulation Study

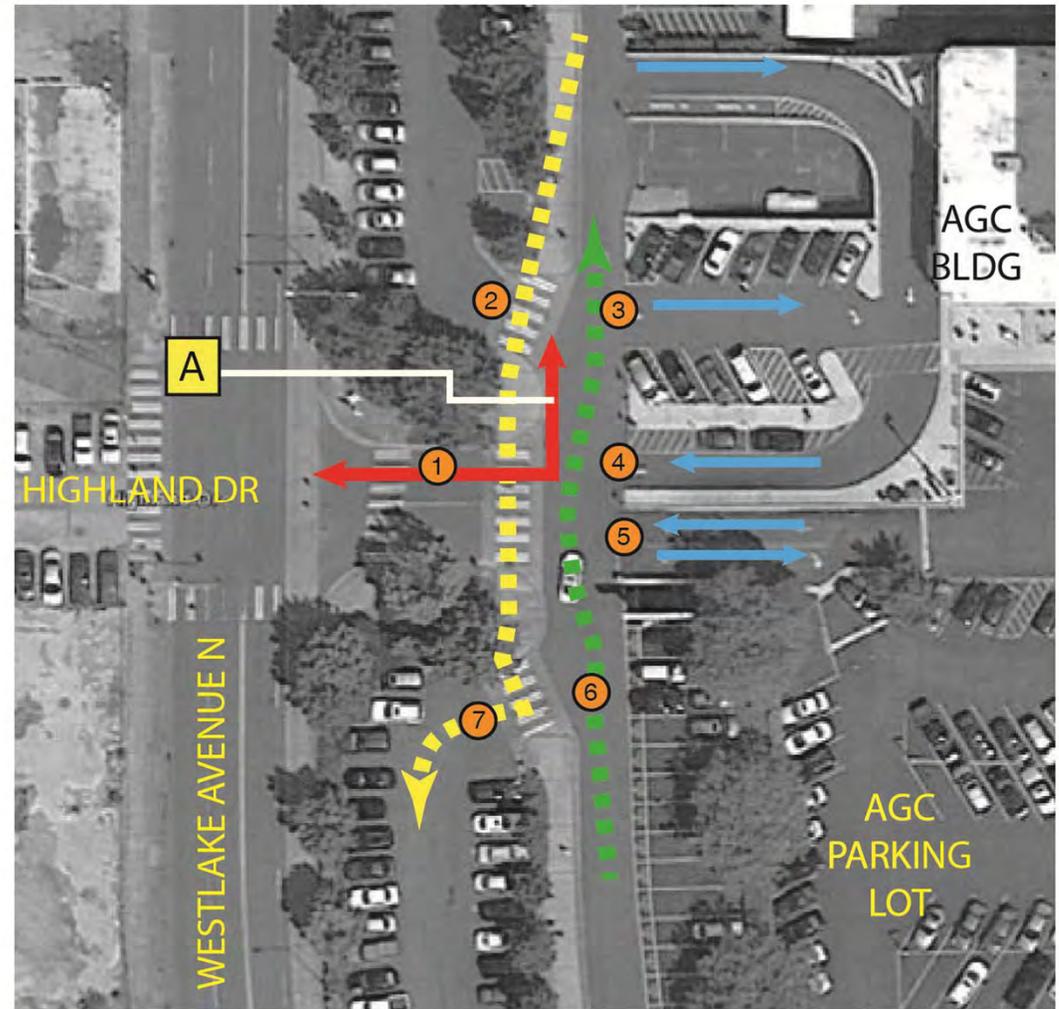
# Counts - #2 Driveway –PM Peak



## 2. Traffic Circulation Study

# Challenging Mixing Zones

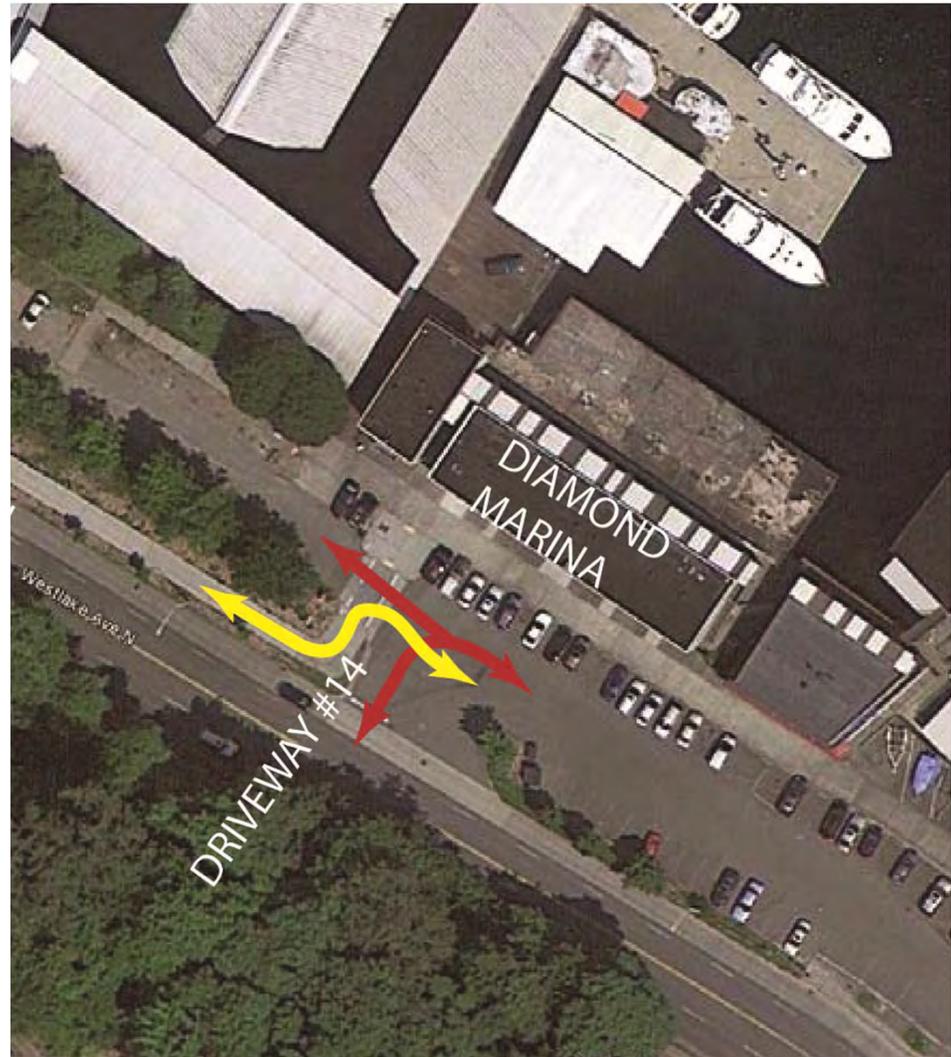
Highland Drive/ AGC Building



## 2. Traffic Circulation Study

# Challenging Mixing Zones

Driveway #14



## 2. Traffic Circulation Study

# Questions?

# 3. PARKING UTILIZATION STUDY

- Inventory parking supply – all types
- Measure occupancy
- Annual SDOT data for paid parking



### 3. Parking Utilization Study

# Study Elements

## Inventory of supply and use

- Free and paid “on-street” public parking
- Parking regulations and rates
- Private parking supply, use and rates
- Loading zones and other uses
- Occupancy – counts combined with SDOT data



### 3. Parking Utilization Study

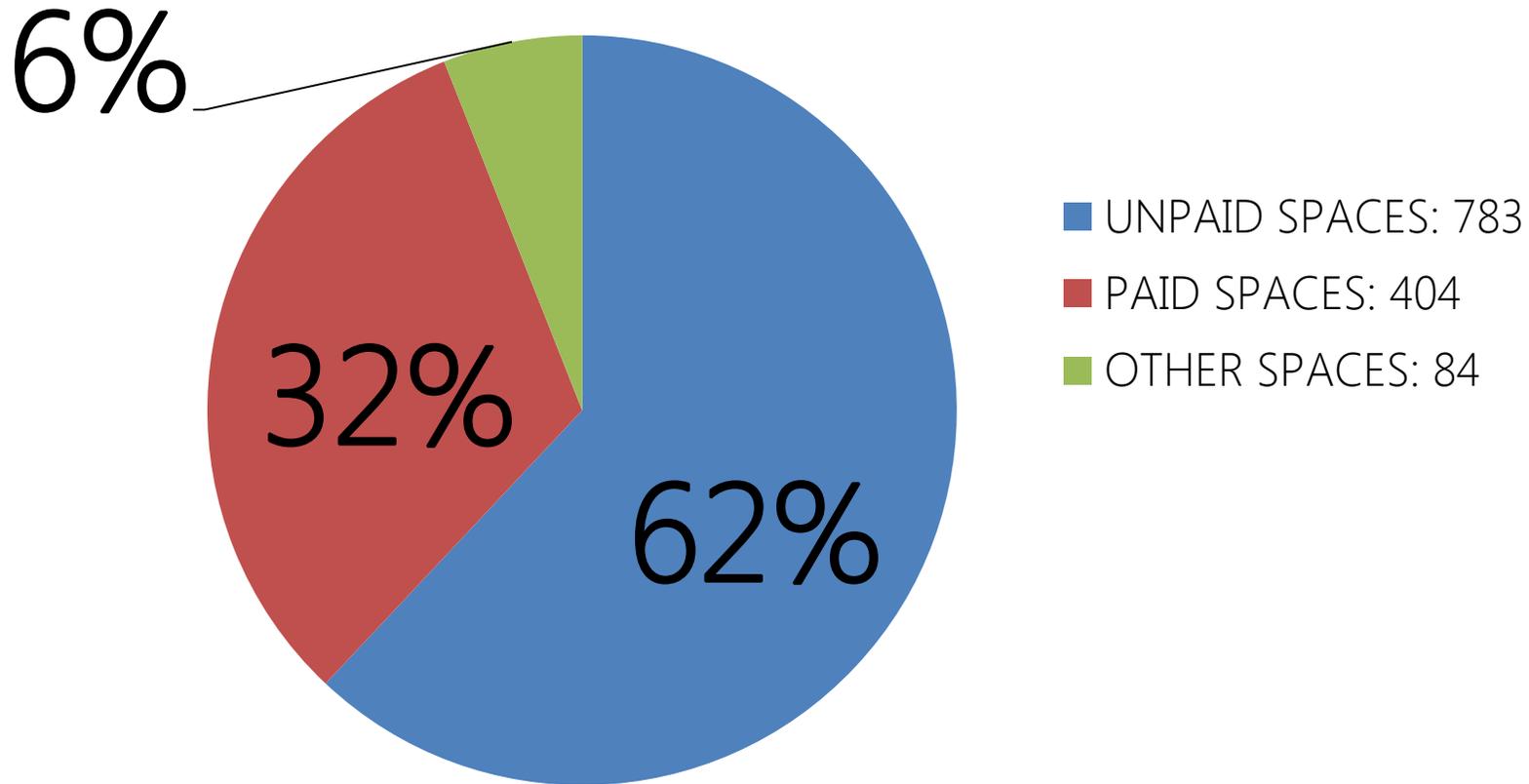
# Collection Times

Friday 9/13/2013			Saturday 9/14/2013			Wednesday 9/18/2013		
7:00 AM	Noon	6:00 PM	Midnight	Noon	6:00 PM	7:00 AM	Noon	6:00 PM



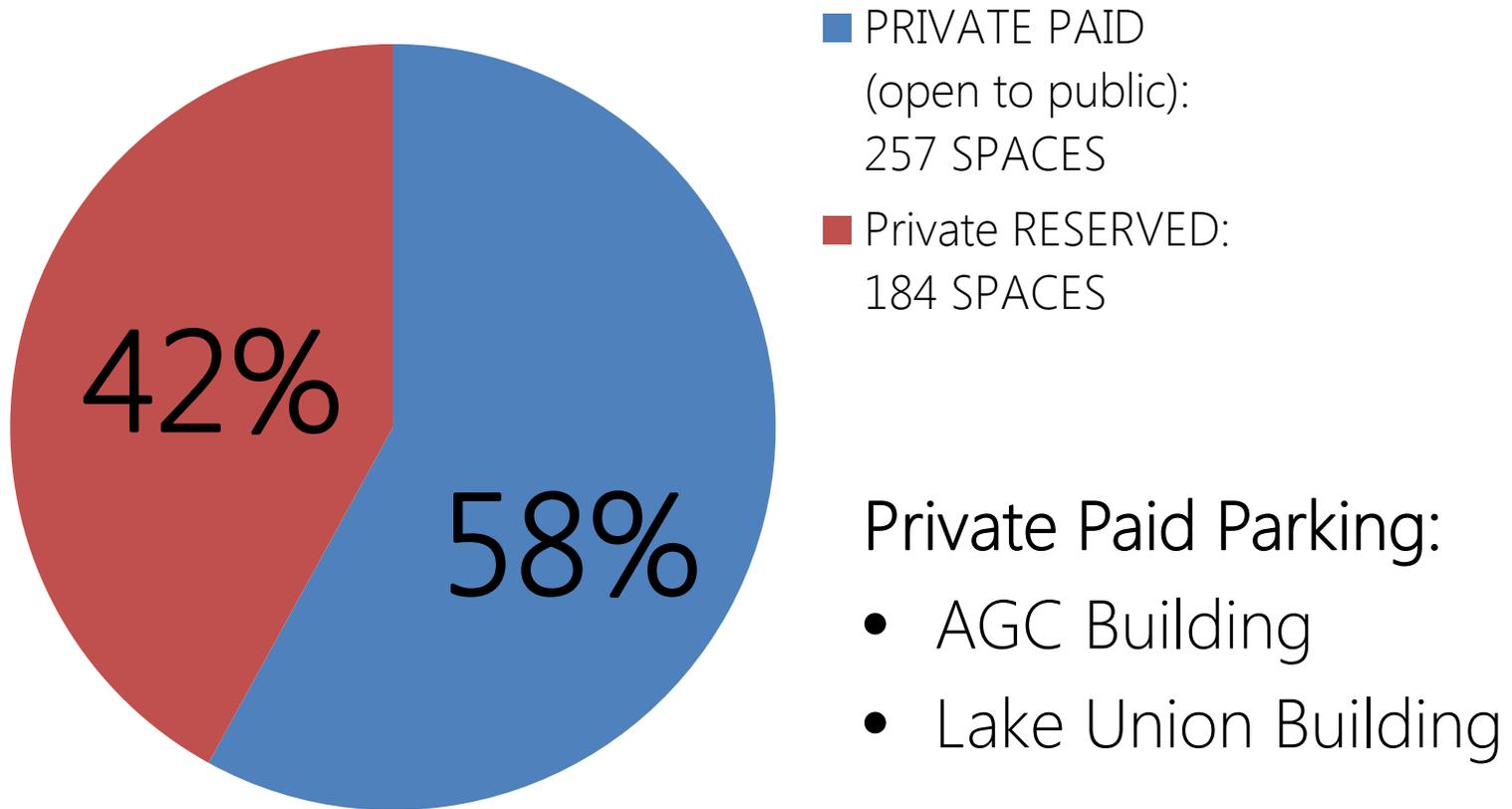
### 3. Parking Utilization Study

## Public Parking Supply: 1,271 spaces



### 3. Parking Utilization Study

## Private Parking Supply: 411 spaces

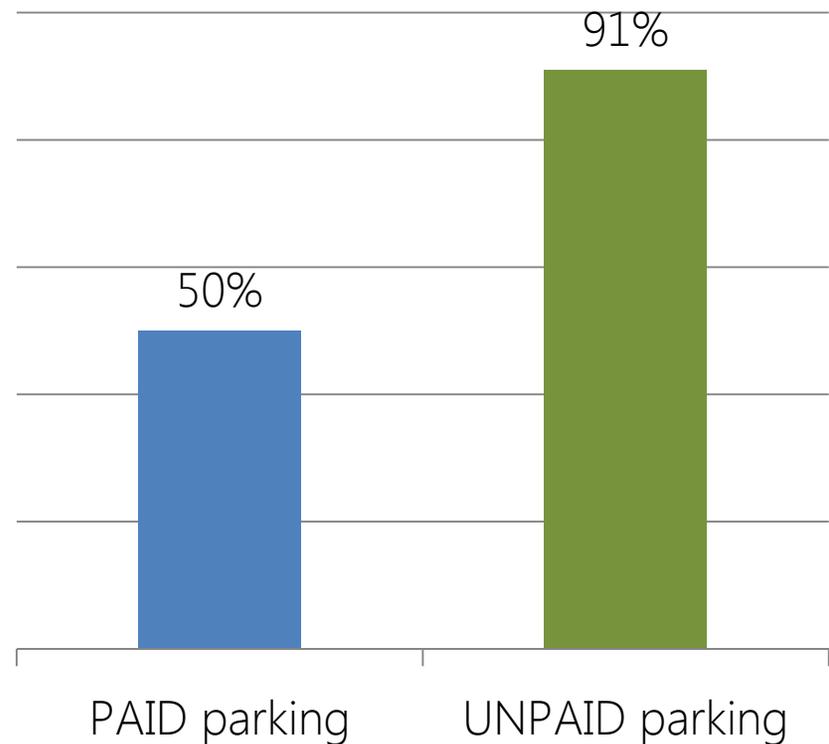


### 3. Parking Utilization Study

# Occupancy - General

- Study divided corridor into 14 zones
- Average: all zones, all nine times
- Highest occupancy: Weekday noon
- Private parking average noon occupancy 58%

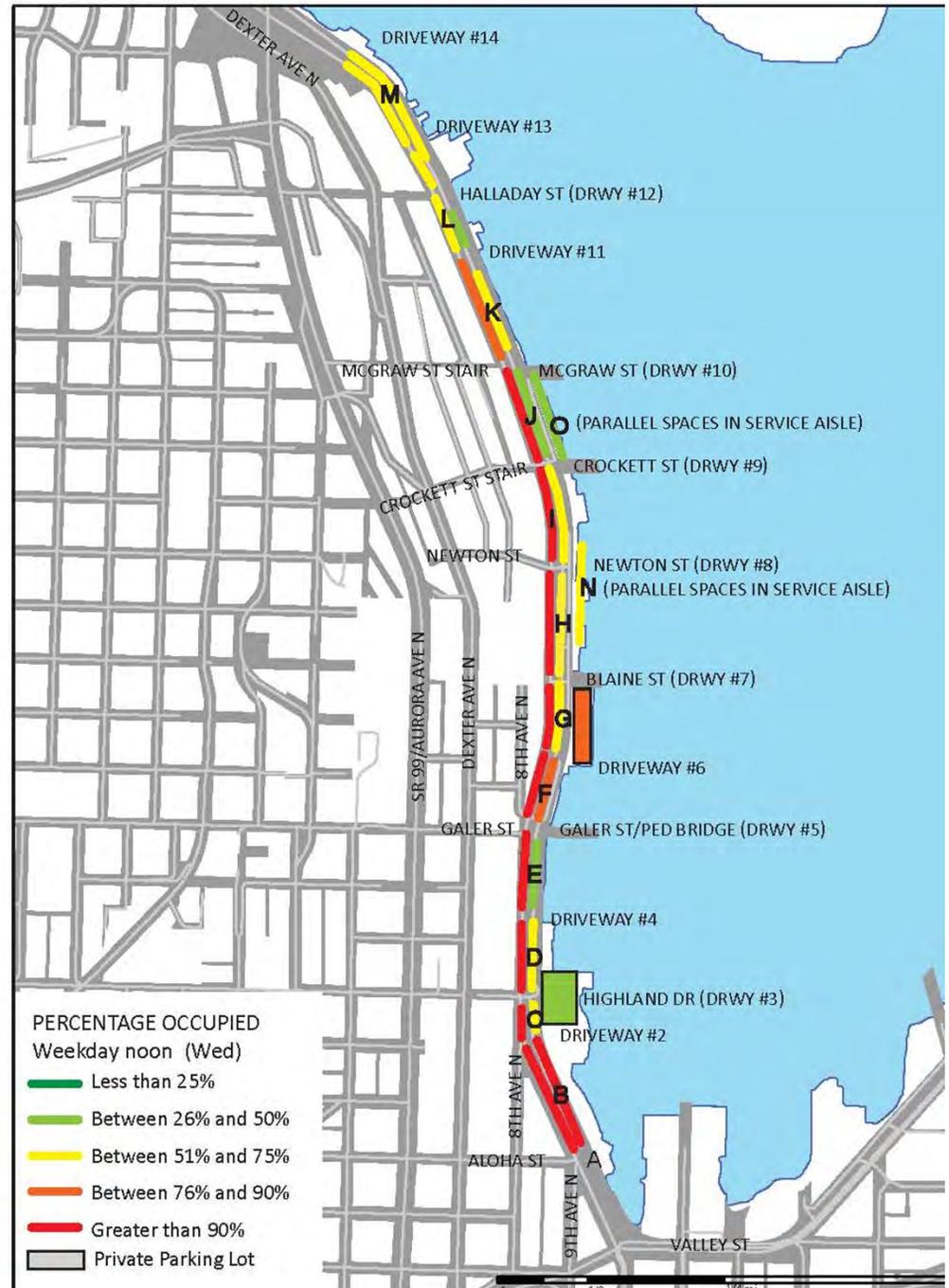
Average occupancy: All zones, nine collection times



PAID peak occupancy (weekday noon) is 65%

### 3. Parking Utilization Study

## Occupancy – By Area



### 3. Parking Utilization Study

# Questions?

## What Did We Learn?

- Pedestrian use is highest of all modes
- Bikes travel the path of least resistance, following traffic patterns
- Driveways crossings need design consideration, for all modes
- Even in high occupancy areas, some parking availability in paid public space and private lots
- Challenging mixing zones results when routes are not well defined

# Questions?

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<http://www.seattle.gov/transportation/wct.htm>

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