Prioritizing a Multimodal Transportation System:

Cost-Effective Transit Projects in Portland, Oregon
ENHANCED TRANSIT CONCEPTS (ETC)

• Pilot Program with 23 individual projects
• Program jointly lead by Metro and TriMet
  > TriMet leads design
  > Local agency leads implementation

• Goal: Improve transit performance and ridership experience for frequent service lines through hotspot low-cost improvements
ETC TOOL KIT

**Laneways and Intersection Treatments**
- Dedicated Bus Lane
- Business Access and Transit (BAT) Lane
- Intersection Queue Jump/Right Turn Except Bus Lane
- Transit-Only Aperture
- Pro-Time (Peak Period Only) Transit Lane
- Bus on Shoulder

**Stops and Stations**
- Curb Extensions for Stations/Stops
- Level Boarding
- All-Door Boarding
- Far-Side Bus Stop Placement
- Bus Stop Consolidation

**Multi-Modal Interaction**
- Bikes Behind Station
- Left-Side Bike Lane
- Dedicated Bike Signal
- Shared Bus/Bike Zone

**Operations/Other**
- Rolling Stock Modification
- Street Design Traffic Flow Modifications
- Transit Signal Priority and Signal Improvements
- Headway Management

*SOURCE: PBOT/CH2M*
DATA DIAGNOSIS: PERFORMANCE

- CAD/AVL Data Heatmap Analysis
- Reliability = Difference between 90th and 10th percentile speeds

Line 8: Jackson Park/NE 15th
5W 6th & Alder to Rose Quarter Transit Center
PM Peak Speed, 4:30 - 5:30 PM, Weekdays, Fall 2017
DATA DIAGNOSIS: RIDERSHIP

- Stop monthly lifts and ons/offs

**Line 75: Cesar Chavez/Lombard**
N Lombard & Portsmouth to N Lombard Transit Center
Monthly Bus Lift Deployments, Weekdays, Fall 2017

**Source:** TriMet

**Line 75: Cesar Chavez/Lombard**
N Lombard & Portsmouth to N Lombard Transit Center
Average Stop-level Activity, Weekdays, Fall 2017

**Source:** TriMet
• Avg 40s savings per trip (4 blocks)
• 92 bus trips (3-7p) – Total trip saving 1hr
• 1,441 total passenger load – Total savings = 16 person-hours
• Avg 1min-12sec savings per trip (6 blocks)
• 98 bus trips (3-7p) - Total trip savings = 1hr 58min
• 1,961 total passenger load – Total savings = 39 person-hours
BURNSIDE BRIDGE

• Avg 51sec savings per trip (3-7p), 2min (5-6p)
• 54 bus trips (3-7p) - Total trip savings = 46min
Burnside Bridge East Side
SE HAWTHORNE

• Zicla modular platforms
• Bikes behind stop

Photo: Zicla

Photo: Zicla

Photo: Zicla

Photo: Zicla
ETC NEXT STEPS: Red Paint
THANK YOU

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