## Burke-Gilman Trail Missing Link Project



Design Advisory Committee Meeting #5

August 17, 2017



#### Agenda

Time	ltem					
2:30 – 2:45 p.m.	Introductions					
2:45 – 3:10 p.m.	Corridor-wide Updates					
3:10 – 3:35 p.m.	Design Updates					
3:35 – 4:05 p.m.	Design Treatment Considerations					
4:05 – 4:10 p.m.	Public Comment					
4:10 – 4:30 p.m.	Wrap Up and Next Steps					
4:30 p.m.	Adjourn					

#### Corridor-wide Updates



#### 1% for the Arts Update

- Funding approval granted from the PAAC (late July)
- Artist selection process is underway (led by SDOT art manager)
- Early ideas: Wave Rave Cave Relocation, Creative industrial signage, Buffer zone improvement, Calypso



Wave Rave Cave and Ballard Bridge at Leary Ave



## Outreach and Design Considerations: People with Disabilities

- ADA Standards
- Mark Adreon
  - → Co-chair of Seattle's Commission for People with Disabilities
  - → WA State Department of Services for the Blind

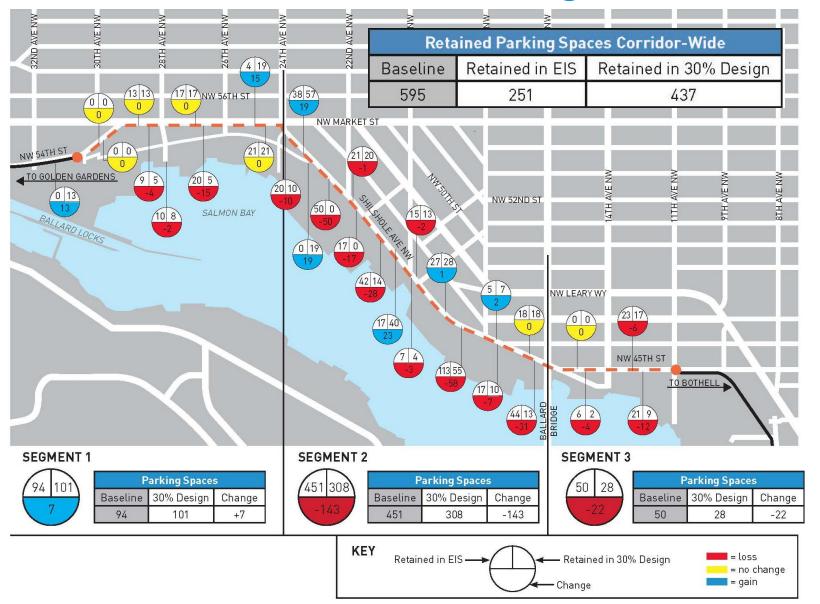


#### **Signals**





#### Corridor-wide Parking Counts



#### City Parking Management

SDOT	On-street parking, e-Park, parking policies
SDCI	Land use regulations, parking requirements
FAS	Commercial Parking Tax, parking facility regulations and licenses
SPD	On-street parking enforcement
SMC	Parking ticket adjudication
OED	Business district awareness, BIAs

#### **ROW and Functions**













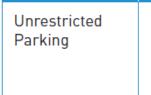
#### Seattle Priorities for Curb/Flex Zone

Priorities for Right-of-Way "Flex Zone" by Predominant Use of Area

Commercial/Mixed-Use Areas	Industrial Areas	Residential Areas			
Modal plan priorities	Modal plan priorities	Modal plan priorities			
Access for commerce	Access for commerce	Access for people  Access for commerce			
Access for people	Access for people				
Activation	Storage	Greening			
Greening	Activation	Storage			
Storage	Greening	Activation			

# Tools





Restricted

(RPZ)

Limits

Parking Zone

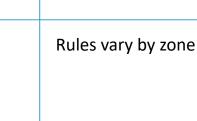
**Unpaid Time** 

**Parking Type** 



##

Typical Area of Use





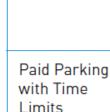
Limits/Rules

72-hour citywide parking limit



Small Commercial





Passenger and

General Load

Commercial

Vehicle and

Truck Load

Zones

Zones







HOUR 7AM-6PM







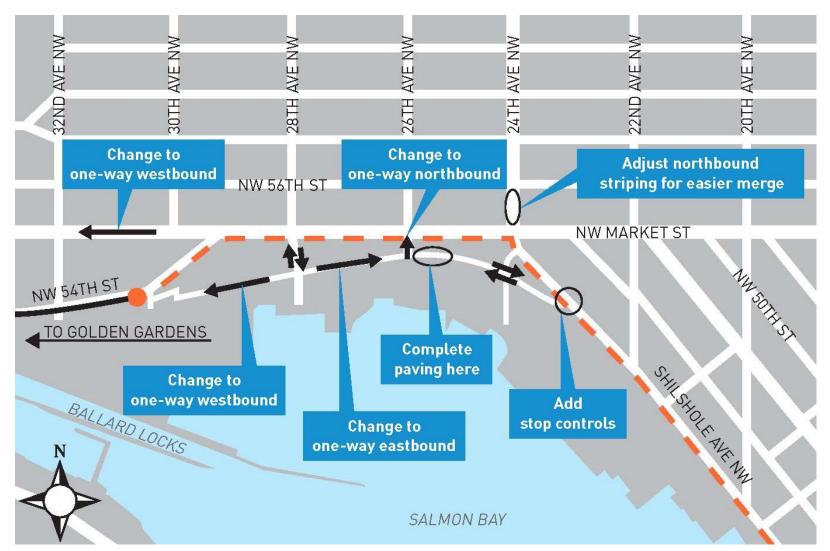




### Design Updates



#### West End of Alignment Meeting Input





#### Daily Driveway Traffic Volumes

ID	Driveway Location	Total	Total Number of Vehicles		Vehicle Classification					
		,			Small			Medium / Large		
		In	Out	Total	In	Out	Total	In	Out	Total
1	NW 54 <sup>th</sup> St/Ballard Locks	300	210	510	285	195	480	15	15	30
7	Shilshole Ave NW/Stimson Marina	475	505	980	455	485	940	20	20	40
8	Shilshole Ave NW/Salmon Bay Center	435	405	840	425	395	820	10	10	20
9	Shilshole Ave NW/Salmon Bay Sand and Gravel	125	135	260	50	55	105	75	80	155
10	Shilshole Ave NW/Covich Williams	40	30	70	20	20	40	20	10	30
11	Shilshole Ave NW/Salmon Bay Café	150	130	280	135	125	260	15	5	20
12	Shilshole Ave NW/Hatton Marine/Ballard Mill Marina	185	200	385	175	190	365	10	10	20
13	Shilshole Ave NW/CSR Marine	155	165	320	140	145	285	15	20	35
14	NW 45 <sup>th</sup> St/Ballard Insulation	65	30	95	55	20	75	10	10	20
15	NE 45 <sup>th</sup> /Dovetail General Contractors	110	140	250	100	120	220	10	20	30
16	NW 54 <sup>th</sup> St/Triad Ballard Development	170	105	275	160	105	265	10	0	10
17	NW 54 <sup>th</sup> St/Trident Seafood Retail	195	230	425	185	225	410	10	5	15

Final EIS: Transportation Discipline Report

Study Area Daily Driveway Traffic Volumes (Nov. 2016, Dec. 2016, Feb. 2017)



## Proposed LED Signs on Shilshole Ave NW

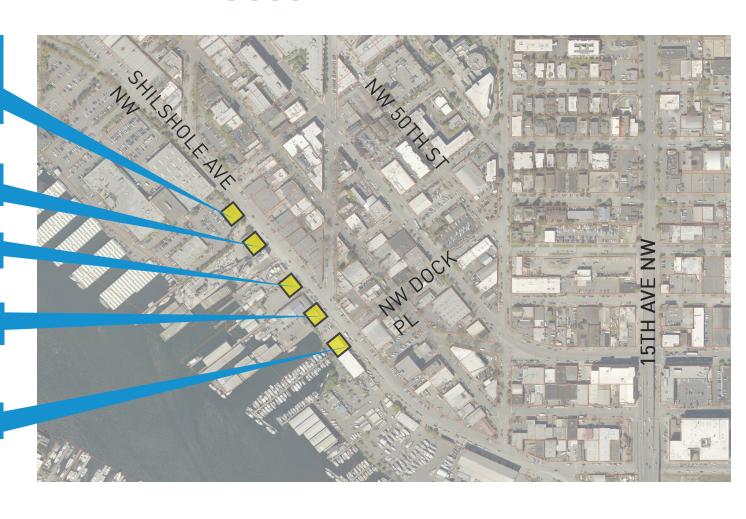
SALMON BAY SAND AND GRAVEL

> COVICH WILLIAMS

SAGSTAD

SALMON BAY CAFÉ

HATTON MARINE



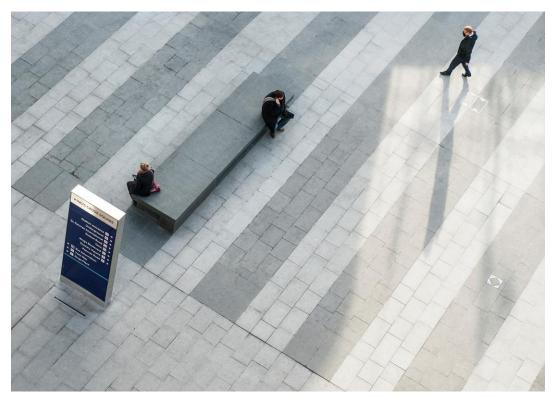


#### **NW Market St Sidewalk Seating**

8oz Burger Co. sidewalk seating Mountable Truck Apron 5 5 16' 16' 7' 3" 8oz Buger and Co. Market Arms 4'-5' Buffer 10' Wide Sidewalk 12' Wide Trail



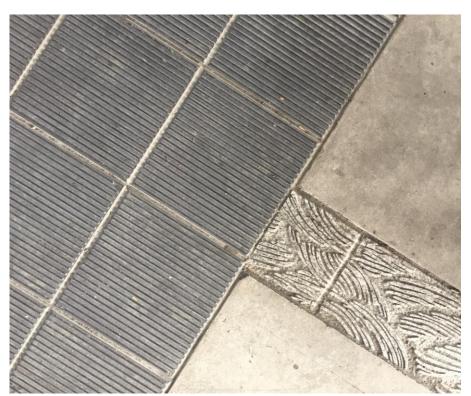
#### **NW Market St Mixing Zone**







#### Paving Treatment Options



**Delineator options** 



University of Washington example



#### Trail Maintenance Responsibilities

(limits are approximate)

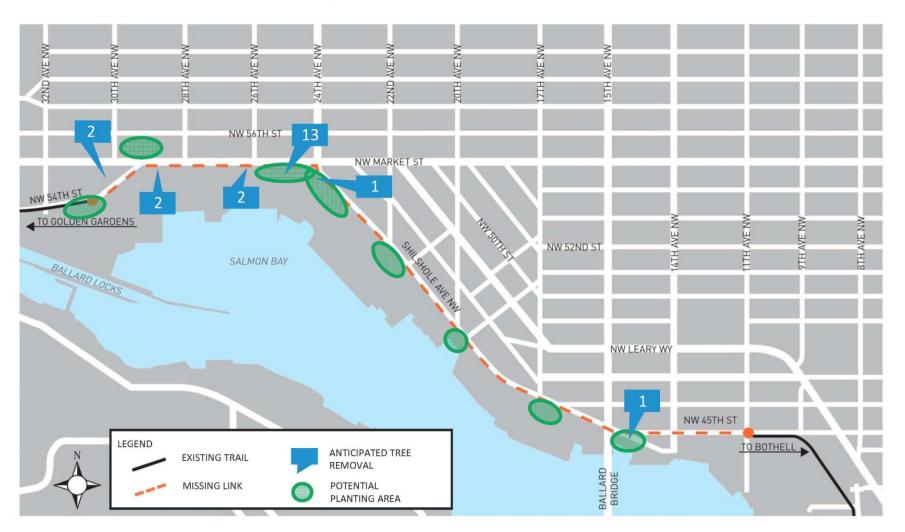


#### **Briefing Outcomes and Feedback**

- Seattle Design Commission (8/3)
  - Unanimously approved 30% design
  - Recommended that the team further study:
    - More landscaping and refuge on Shilshole
    - Further study at 24<sup>th</sup>/Market mixing zone
    - Trail Amenities
- Ballard Ave Landmark District Board (8/10)
  - Parking concerns
  - Requested more landscaping



#### Landscaping Options and Impacts





#### Additional Design Updates

- Additional modeling for truck turning
- Segment 3 trail placement and parking







- Role of Independent Design Advisor
  - → Obtain understanding of challenges
  - → Provide independent research
    - Highlight best practices
    - Identify potential innovative ideas based on principles
  - → Review plans
  - → Develop strategies to reach agreement on resolution of corridor challenges



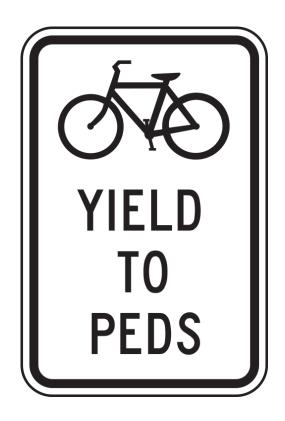
#### **Topics To Cover**

- Mixing Zone at 24<sup>th</sup> Street/Market Avenue
- 54<sup>th</sup> Street/Market Avenue Bus Stop
- Driveways
  - → Priority determination
  - → Trail yields or Trucks yield
  - → Visibility
- Policies on Trucks
- Recommend Field Testing



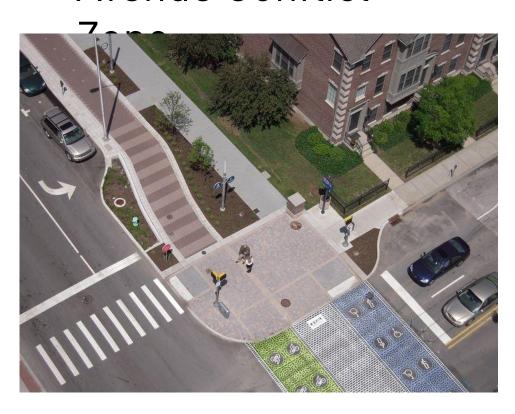


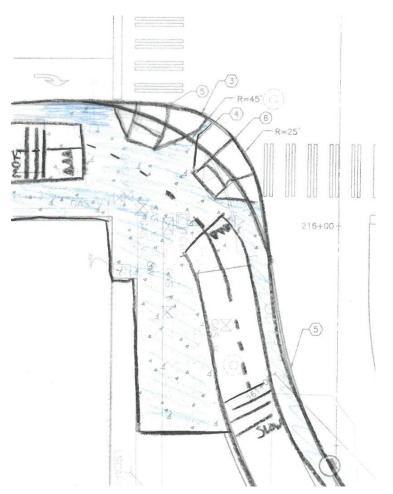
- 24<sup>th</sup> Street/Market Avenue Conflict Zone
  - → Alert users to mixing area
    - Texture
    - Signing
    - Marking
  - → Pedestrian Prioritization
  - → Maintain trail corridor





24<sup>th</sup> Street/Market
 Avenue Conflict

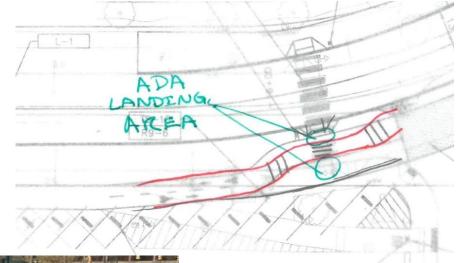








- 54<sup>th</sup> Street/Market
   Avenue Bus Stop
  - → Transition pedestrians across trail to sidewalk and crosswalk



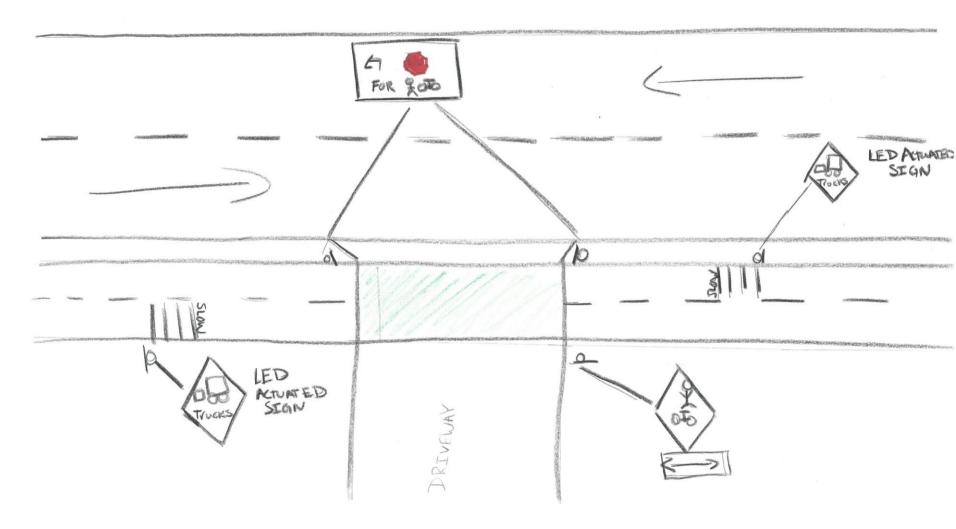




- Driveways
  - 1. Priority to Trail
    - Current Design
  - 2. Priority to Driveway
    - Yield control on trail (where sufficient sight distance is available)











#### Driveways

- → Determine Priority
- → Minimize interruptions for trail users
- → Prioritize trucks on high volume driveways
  - Context-based determination
  - ~500 trucks/day or more (trucks entering/exiting driveway nearly every minute during peaks)

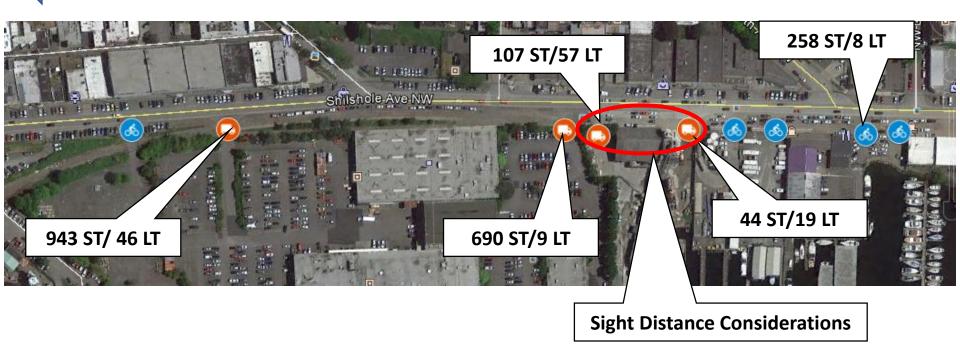


• Driveways: Preliminary suggestions for future



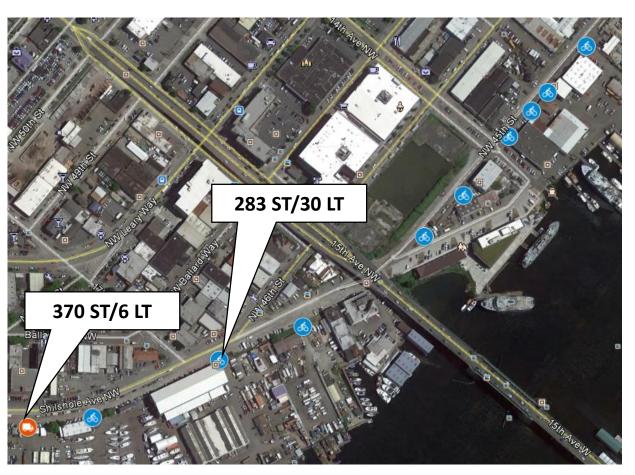
• Driveways: Preliminary suggestions for future consideration

North



• Driveways: Preliminary suggestions for future consideration

North



- Driveways (Trail Yield)
  - →Advance warning
  - → Actuated LED Warning Signs
  - → Narrow trail and add centerline at driveways



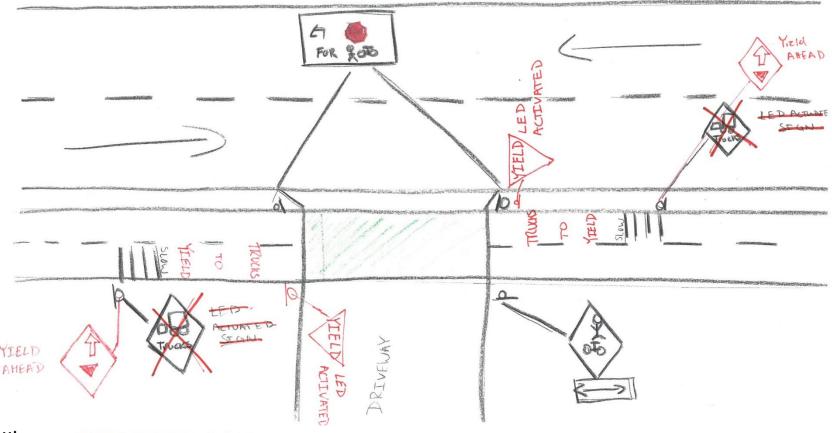








Driveways (Trail Yield)





- Driveways (Trucks Yield)
  - → Trail crossing signs
  - → LED Warning Signs (actuated by trail users)
  - → Turning vehicles yield to trail users

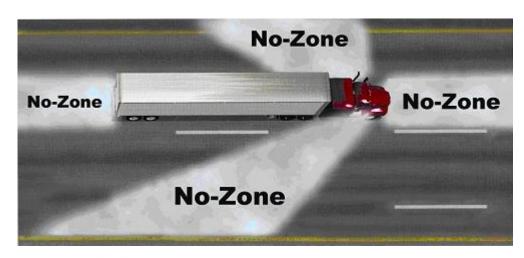






#### Visibility

- → Limit vertical elements in buffer with sight line considerations
- → Mirrors to view trail next to truck
- → Sight distance for all users







- Policies For trucks
  - $\rightarrow$  Stay within its lane (e.g., rightmost lane to rightmost lane)
  - Typically State DOTs and higher order facilities (ramp → Enዊខ្លាត់ការ់ស្នា់ adjacent lane (in
  - the same direction)
    - Higher order facilities (e.g., minor arterials and collectors)
  - $\rightarrow$  Use all pavement (including opposing lanes)
    - Downtown areas in numerous cities

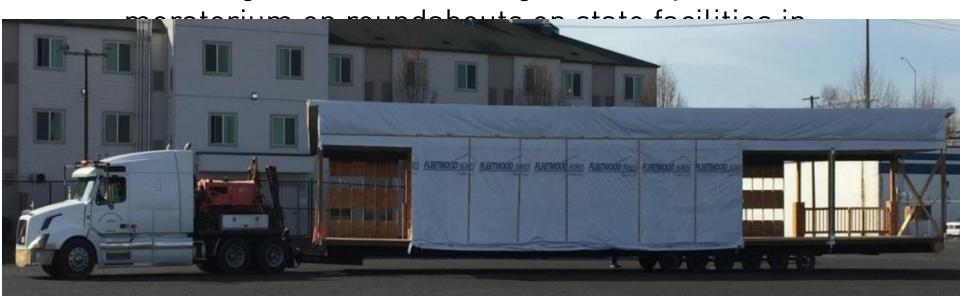








- Field Testing
  - → Success Story of Field Test with Freight Industry in Oregon
  - → Obtain agreement from Freight Industry after



Field Testing: US20/Barclay Drive



- Field Testing:
   Designing for Trucks
  - → Full-scale test in two locations
  - → Tested 18 truck/trailer combinations
    - Up to 130' in length
  - →All test vehicles made it through the roundabout





Field Testing: Go Pros





Field Testing: Field Documentation









Field Testing: Example of Before





Field Testing: Example of Illustrating After





Field Testing: Example of Before



Field Testing: Example of Illustrating After





Field Testing: Possible Locations (today)





Field Testing: Possible Locations (future)





#### **Questions and Discussion**

THANK YOU!

- Hermanus Steyn at Kittelson & Associates, Inc.
  - $\rightarrow$  Phone: (503) 535-7455
  - → Email: hsteyn@kittelson.com
  - →Other Team Members: Conor Semler, Caitlin Doolin and Karla Kingsley



# **Public Comment**



# Wrap-up and Next Steps



# Updated DAC Work Plan

Meeting	Updated Schedule
DAC Meeting #5 (today)	August 17
DAC Meeting #6 & All-Segment Workshop	September 28 DAC, 2-4 PM Workshop, 4:30-6:30 PM
Public Event	October 12
Self-guided Public Walking Tour	October 14
DAC Meeting #7	October 26
DAC Meeting #8	November 16
DAC Meeting #9	January 11, 2018
Public Event #3	January 18
DAC Meeting #10	February 1

#### burke-gilman trail missing link project

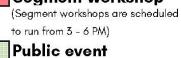
DAC and public outreach events and milestones

May 2017								
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30	31	( D)						

DAC meeting*
(All DAC meetings are anticipated
to run from 2:30 - 4:30 PM)
 Segment workshop



August							
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January 2018							
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28	29	30	31	1	2	3	

# Thank you!

louisa.galassini@seattle.gov | (206) 615-0185 www.seattle.gov/transportation/BGT MissingLink.htm

#### www.seattle.gov/transportation







