

Seattle Department of Transportation

# Burke-Gilman Trail Missing Link

## 10/2 Driveway Refinement Field Test Overview and Outcomes

*Last updated: January 19, 2018*



# Burke-Gilman Trail Missing Link Design Advisory Committee

## Driveway Refinement Field Test Summary

Monday, October 2, 2017 | 3:00—6:00 p.m.  
5423 Shilshole Ave NW Seattle, WA 98107

### Introduction

On Monday, October 2, 2017 the Seattle Department of Transportation (SDOT) hosted a pilot driveway refinement field test as part of the Burke-Gilman Trail Missing Link Project. This field test was planned by the expert design advisor team from Kittelson & Associates, as well as attended and observed by Design Advisory Committee (DAC) members, City of Seattle staff, and the Pertteet design team.



The purpose of the field test was to test corridor visibility and accessibility of the trail from various perspectives at the Schematic Design milestone. Project staff simulated a driveway crossing of the Missing Link design along Shilshole Ave NW with paint, traffic cones and barrels, and trail signs at a test driveway. A large tractor-trailer truck was driven across the simulated driveway to test a variety of turning motions and verify that driveway design specifications can accommodate these truck movements.

### Driveway Refinement Field Test Goals and Observations

The field test was guided by five primary questions (observations are included as sub-bullets):

- 1. Driveway Width: Does the proposed design accommodate the trucks anticipated to use the driveways?**
  - The large tractor-trailer truck was capable of safely executing turns in and out of driveways within the proposed driveway design width (i.e., driveway and apron)



**2. Driveway Crossings for Trail Users: Does the design clearly communicate to trail users the location of the driveways and where they should be positioned when yielding to driveway traffic?**

- The green painted driveways was clearly visible for trail users
- The trail did not clearly define a waiting area for trail users to in stay while large vehicles maneuver in and out of driveways
- The best locations for advanced warning signage (particularly for cyclists to slow down and stop as they approach driveway crossings) was unclear.



**3. Traffic Exiting from Driveway: How do vehicles exiting the driveways interact with trail users?**

- Vehicles exiting the driveways had sufficient sight distances of the trail
- Trail users had visibility of vehicles moving out of the driveway



**4. Left-Turns into Driveway: Can trucks safely make a left-turn into the driveway?**

- Trucks were capable of safely making left turns into the driveways



**5. Right-Turns into Driveway: Can trucks safely make a right-turn into the driveway?**

- Trucks were capable of making right turns into driveways; however, they had difficulty identifying trail users due to blind spots and trail user predictability
- Trail users might need additional prompts to make them aware of the need to yield to trucks



## Results and Design Outcomes

The field test verified design parameters and helped identify potential design components that could be further refined in final driveway design of the Missing Link corridor:

- **Field test verified the following:**
  - Driveway design accommodates the design vehicle
  - Driveway is visible for trail users
  - Sufficient sight distance for exiting vehicles
- **Design enhancements because of the field test:**
  - Taper the trail at driveway crossings from 12 feet to 8 – 10 feet to further slowdown trail users and define extent of turning paths, especially for trucks
  - Extend the green painted driveways to include the truck aprons to define the waiting area for trial users
  - Revisit the location of the LED warning signs to inform trail users of the driveway locations
  - Improve predictability for trail users and trucks making **right-turns** into driveways by:
    - Maintaining offsets from the roadway for increased visibility, and
    - implementing additional vehicle detection in the travel lane to trigger the flashing LED lights on the trail.

## Additional Photos

### Left Turns



*A large tractor-trailer initiates a left-turn and exits the driveway.*



## Right Turns



*A large tractor-trailer initiates a right-turn into the driveway. A trail-user is seen waiting for the truck to complete its turn.*



*An alternate angle of the tractor-trailer completing a right-turn into the driveway. There is sufficient space in the driveway crossing for the truck to complete this maneuver.*

## User Visibility



*"Truck Crossing" signs are placed along the trail.*



*A large-tractor trailer waits for the driveway crossing to clear before initiating a turn.*