

# West Seattle Five-Way Intersection

W Marginal Way, SW Spokane St, Delridge Way SW, and Chelan Ave SW



Seattle Freight Advisory Board  
Emily Ehlers & Marni Hefron  
June 10, 2014

# SDOT's mission & vision

Mission: delivering a first-rate transportation system for Seattle.



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

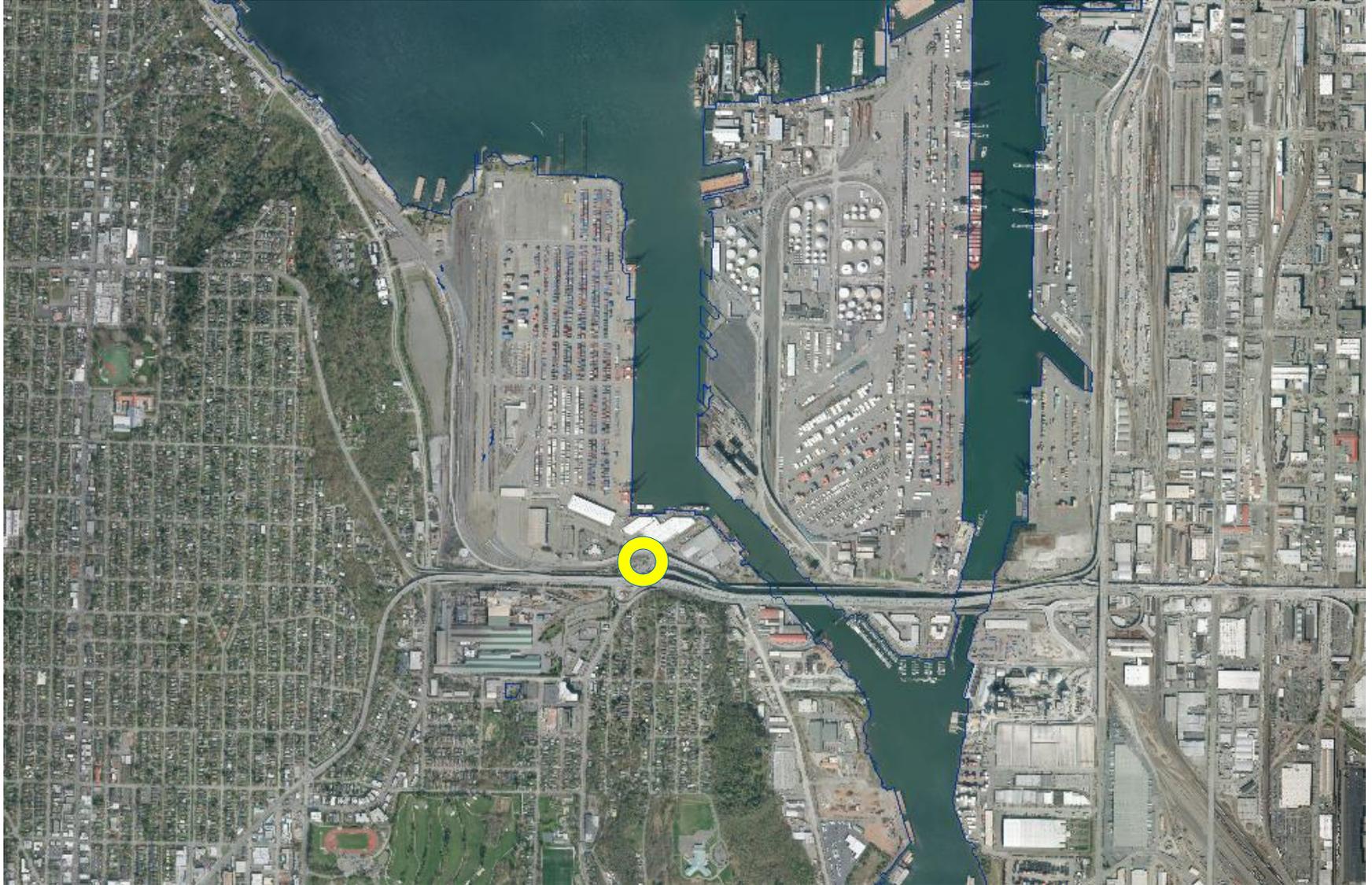
# SDOT's core principles



# Presentation overview

- Project area
- Existing conditions
- Potential concepts
- Evaluation framework
- Next steps

# Project area



# Existing conditions



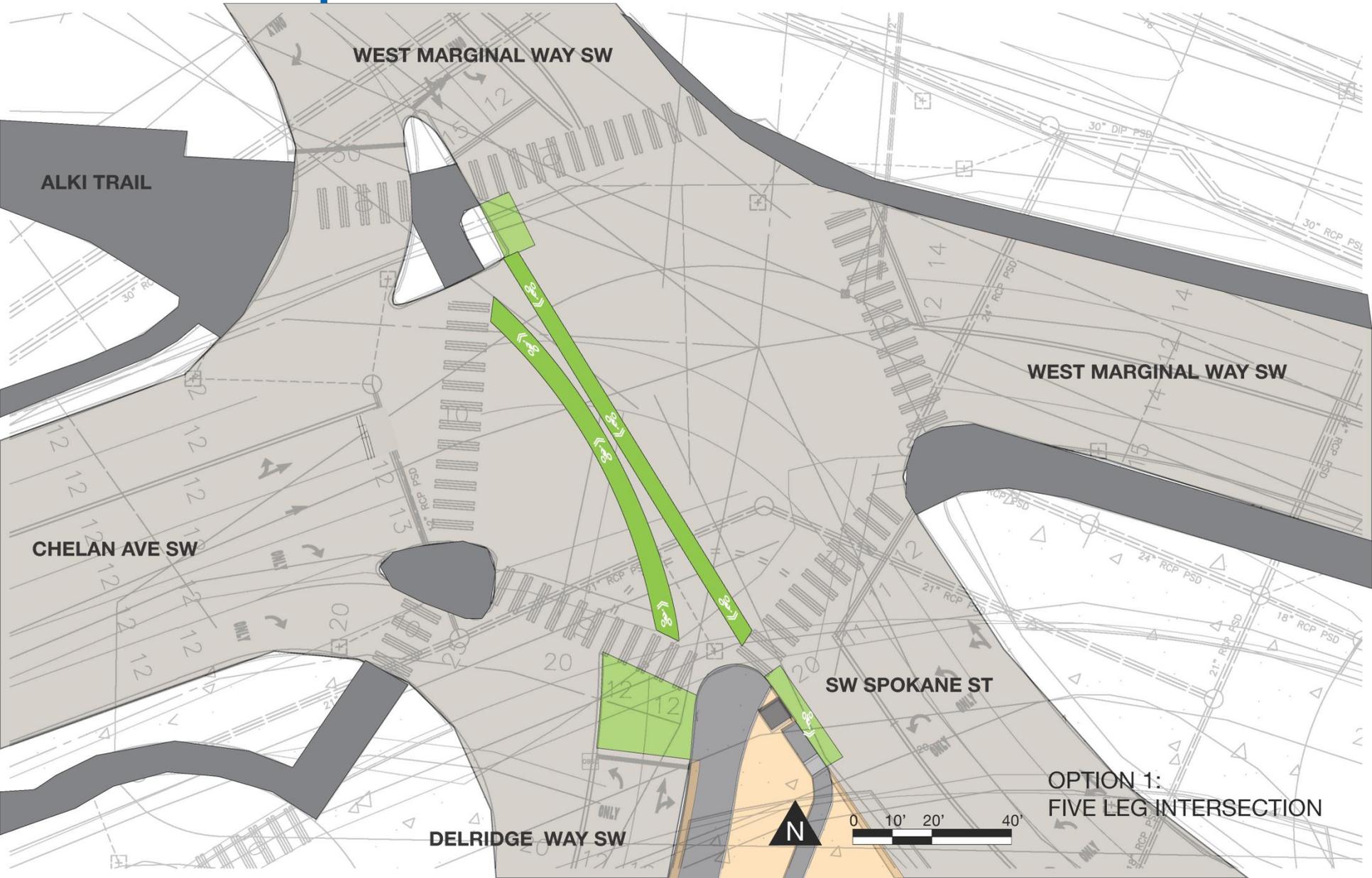
- Complicated geometry
- Limited signal capacity
  - Long cycle & wait times
- Unpredictable bike/ped movements
- Competition for space
  - Vehicle volumes highest intersecting bike/ped desire lines
  - Port of Seattle access

# Goals

- Safety
- Predictability
- Intuitive / comfortable bike/ped trail connection
- Maintain auto / freight travel times
- Support Port of Seattle operations

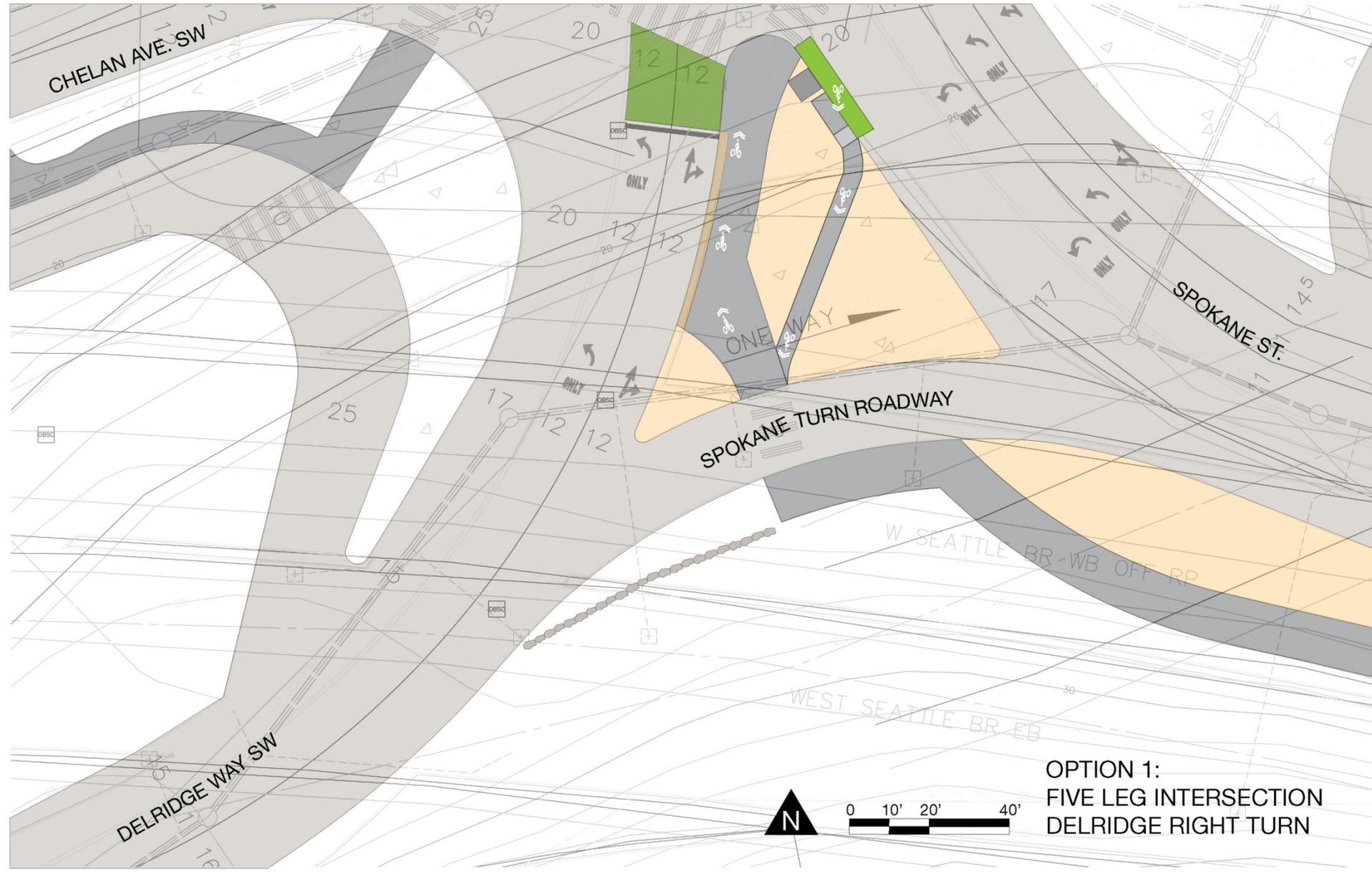


# Concept 1



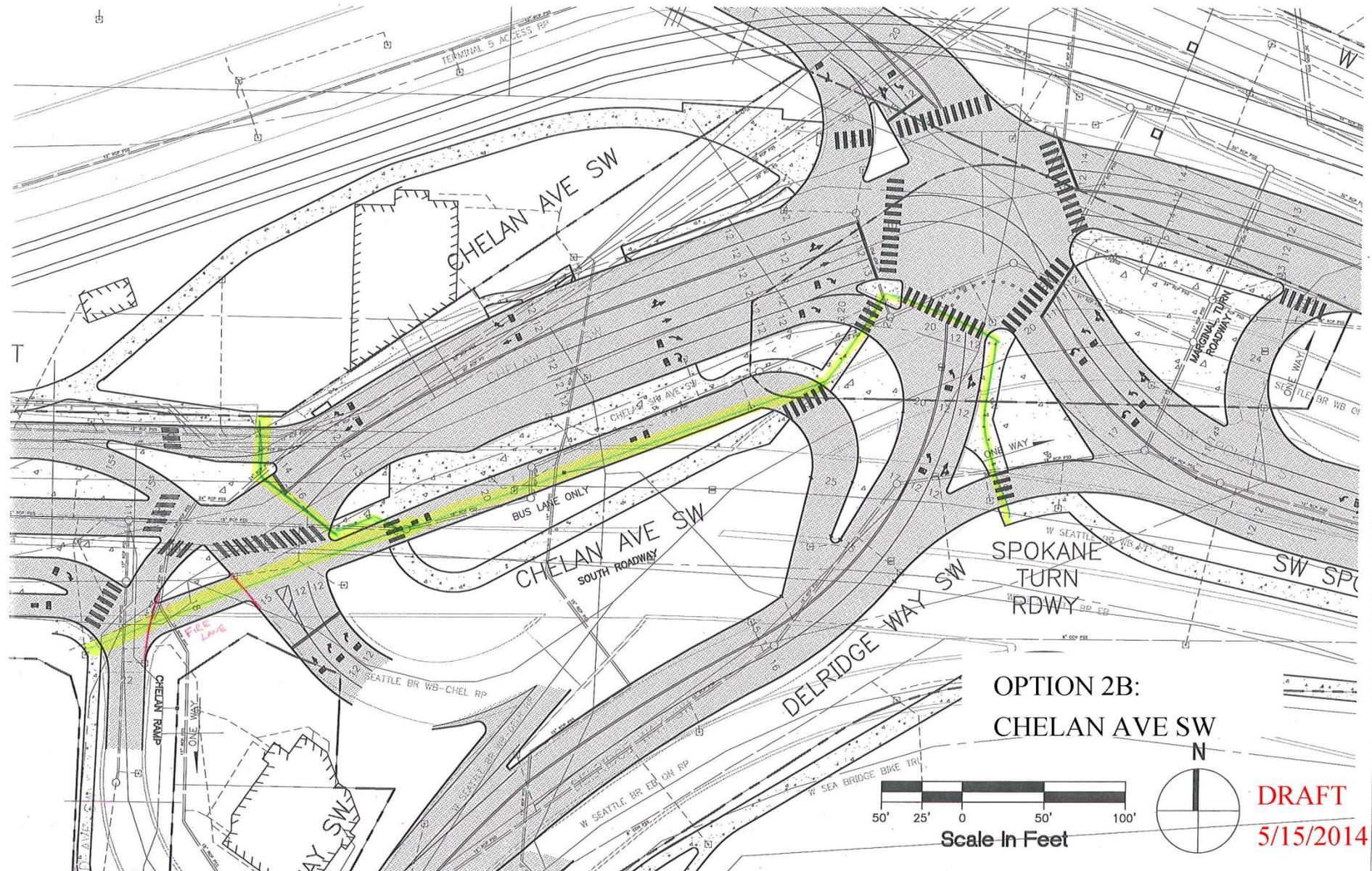
OPTION 1:  
FIVE LEG INTERSECTION

# Concept 1

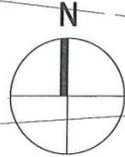


OPTION 1:  
FIVE LEG INTERSECTION  
DELRIDGE RIGHT TURN

# Concept 2

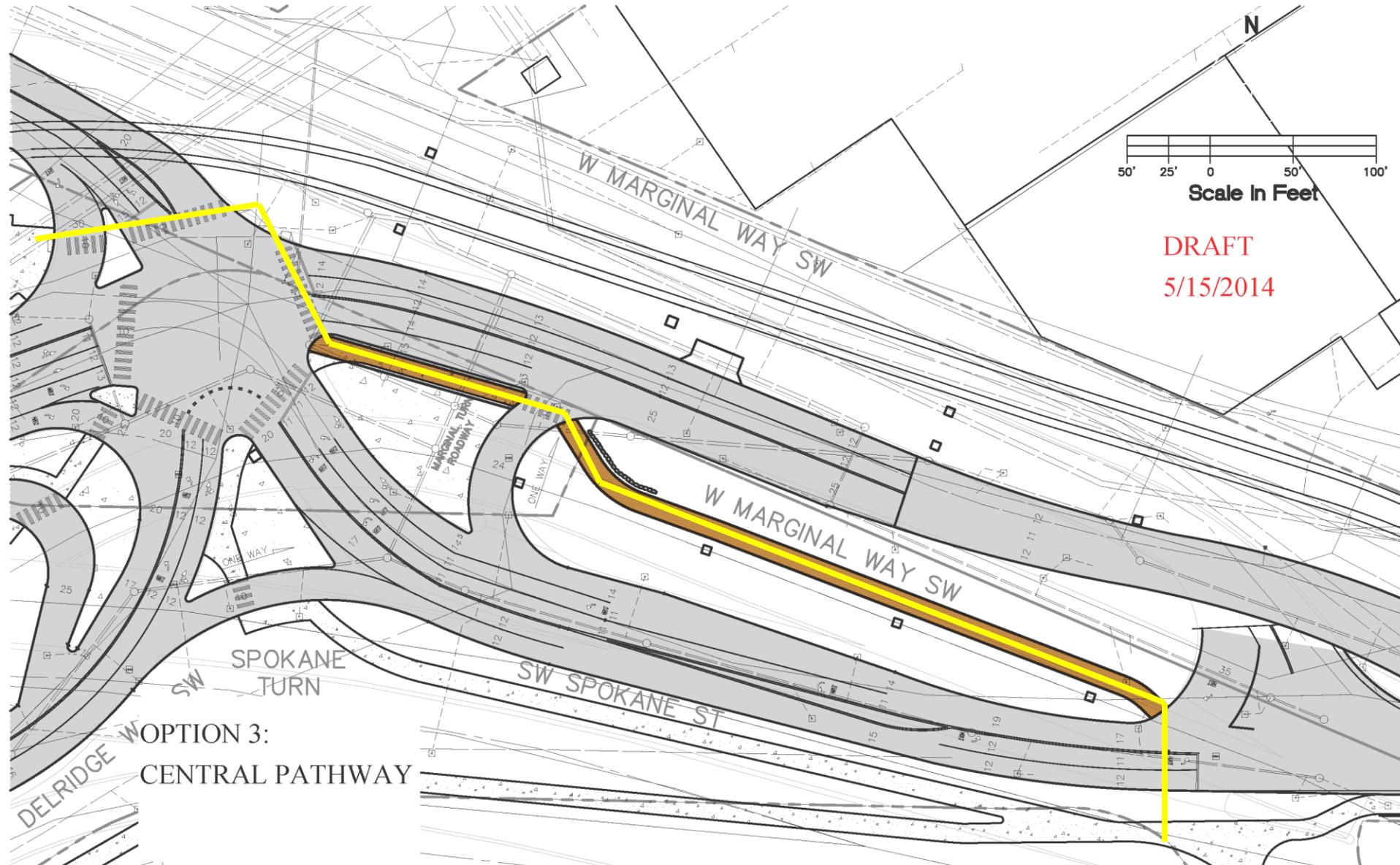


OPTION 2B:  
CHELAN AVE SW

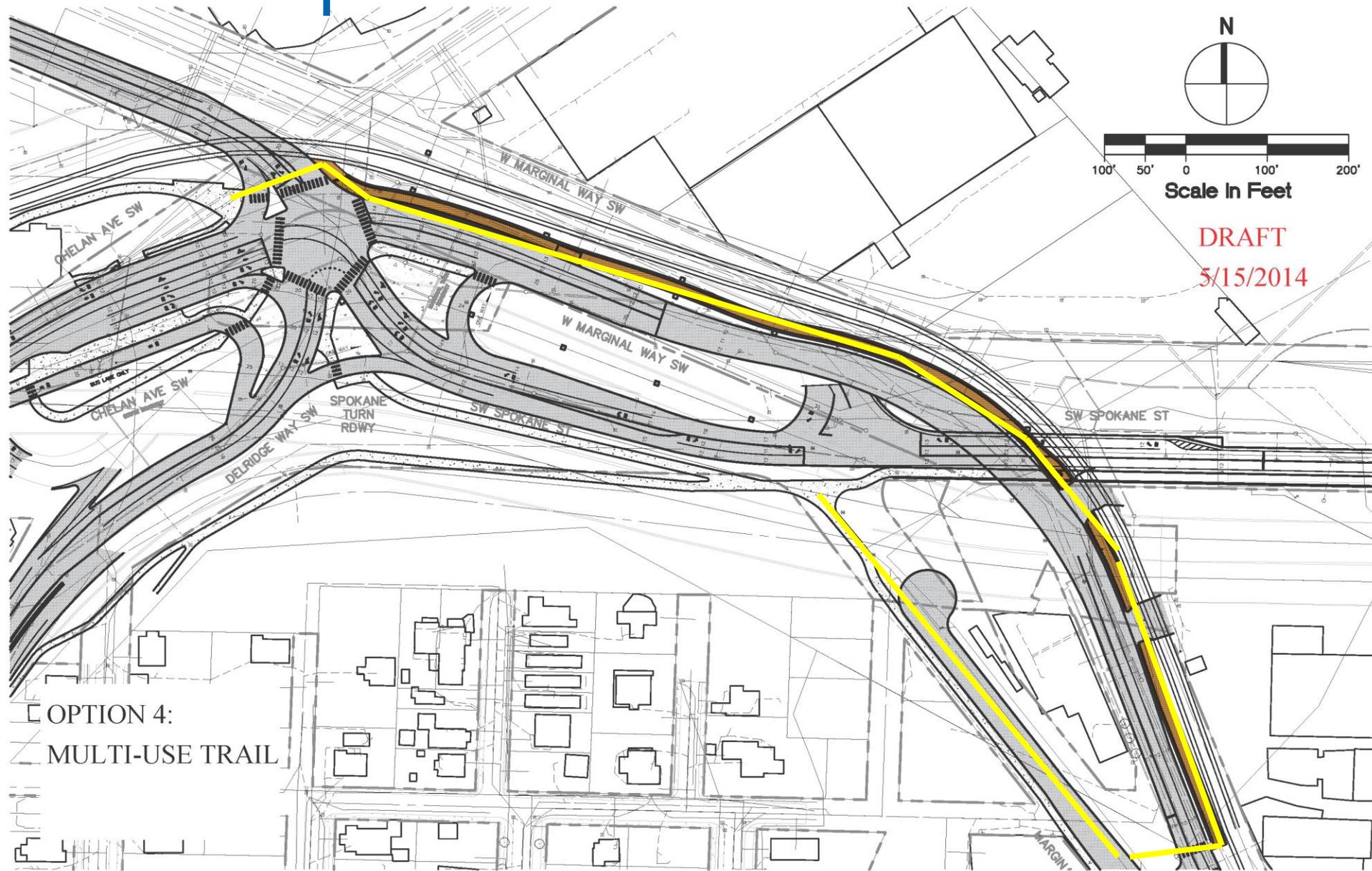


DRAFT  
5/15/2014

# Concept 3



# Concept 4

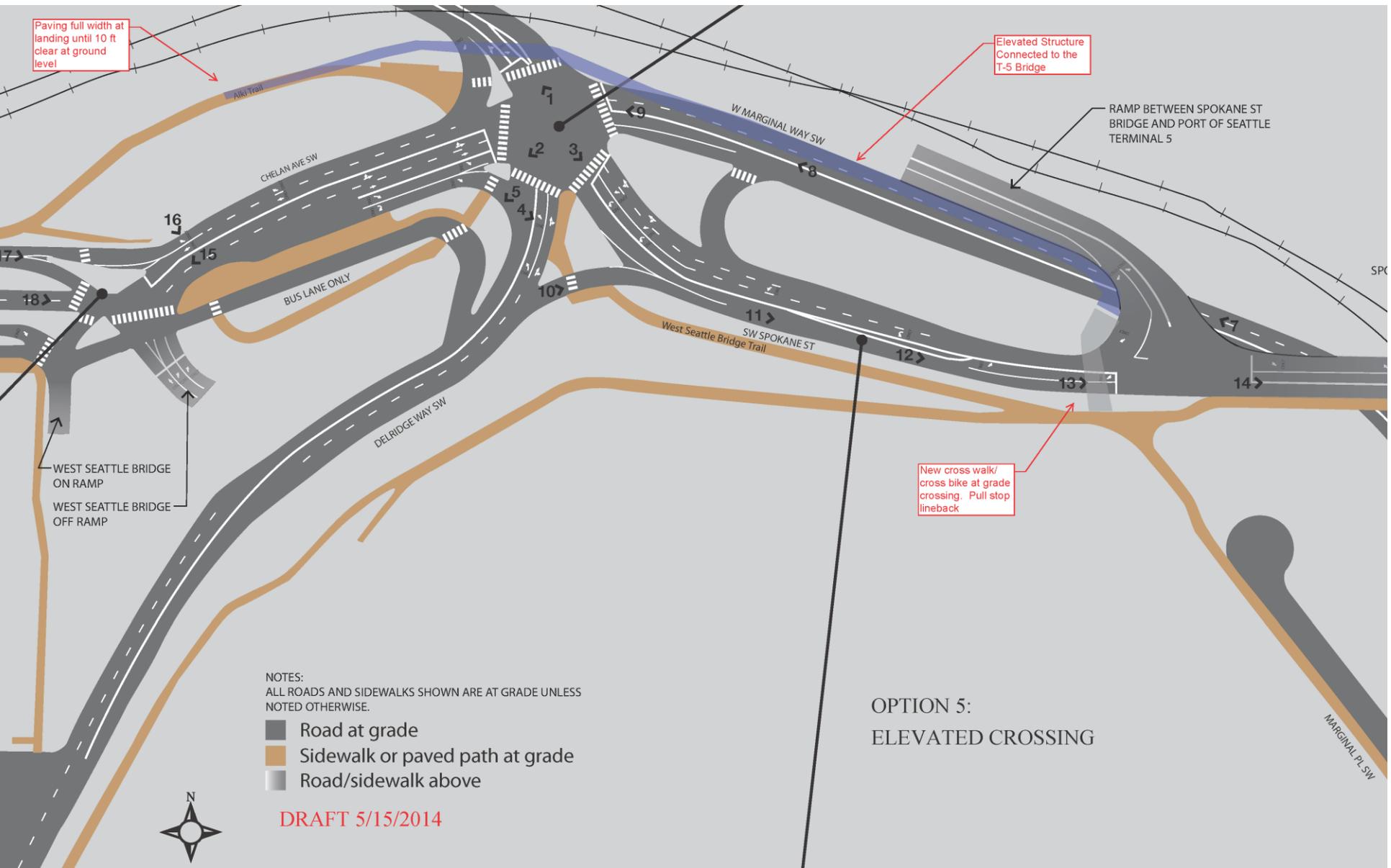


Scale In Feet

DRAFT  
5/15/2014

OPTION 4:  
MULTI-USE TRAIL

# Concept 5



Paving full width at landing until 10 ft clear at ground level

Elevated Structure Connected to the T-5 Bridge

RAMP BETWEEN SPOKANE ST BRIDGE AND PORT OF SEATTLE TERMINAL 5

WEST SEATTLE BRIDGE ON RAMP  
WEST SEATTLE BRIDGE OFF RAMP

New cross walk/cross bike at grade crossing. Pull stop lineback

NOTES:  
ALL ROADS AND SIDEWALKS SHOWN ARE AT GRADE UNLESS NOTED OTHERWISE.

- Road at grade
- Sidewalk or paved path at grade
- Road/sidewalk above

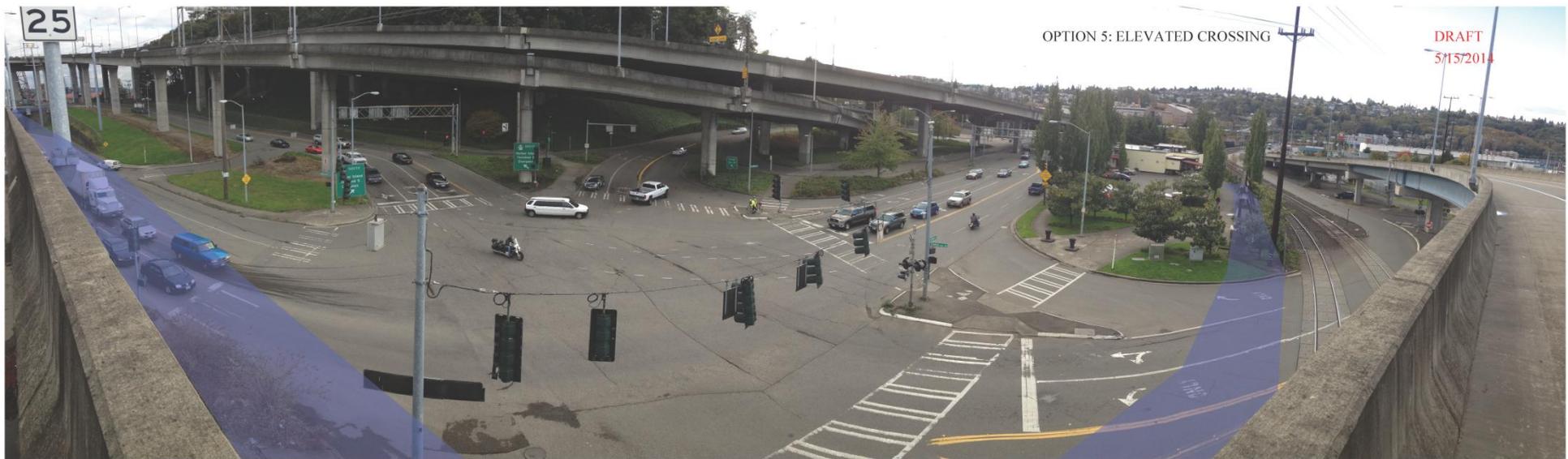


DRAFT 5/15/2014

OPTION 5:  
ELEVATED CROSSING

MARGINAL PL SW

# Concept 5



# Evaluation

Performance Criteria	Goal / Target	1 Five-leg Intersection	2 Chelan Ave SW	3 Central Pathway (SW Spokane to W Marginal Way S)	4 Multi-use Trail (along West Marginal Way)	5 Elevated crossing (From Spokane St to T5 along POS overpass)
<b>1. Pedestrian Performance</b>						
(1) Pedestrian safety from vehicle conflicts	based on perception of safety and likelihood of "j" walking					
(2) Universal access						
(3) Conflicts between pedestrian and bicycles	qualitative evaluation based on "resiliency" or providing options for travel					
(4) Pedestrian travel time						
(5) Accommodation of pedestrian demand	based on quality of space provided for demand					
<b>2. Bicycle Performance</b>						
(1) Bicycle facility						
(2) Accommodation for user groups	qualitative cycling suitability based on average user stress level					
(3) Bicycle access	qualitative evaluation based on "resiliency" or providing options for travel					
(4) Bicycle safety from vehicle conflicts	based on perception of safety and likelihood of following designated route					
(5) Bicycle travel time	for this project do we address travel time of main routes from/to each trail?					
(6) Accommodation of bicycle demand	based on quality of space provided for demand					
(7) Consistent with adopted bicycle plan(s)	based on existing adopted plans					
<b>3. Transit Performance</b>						
(1) Transit operations	based on potential to increase transit delay at intersections or affect transit priority signal phasing at the Spokane Street/West Sp					
(3) Pedestrian access to bus stops	Improved ped access to bus stops					
(4) Future use of wb "Bus Only Lane" on Chelan Ave						
(5) Consistent with adopted transit plan(s)	based on existing adopted plans					
<b>4. Freight Performance</b>						
(1) Freight delay at five-legged intersection						
(2) Freight delay at Spokane Street/T-5 intersection						
(3) Truck access to property						
(4) Consistent with adopted freight plan(s)						
<b>5. Vehicle Performance</b>						
(1) Effect on vehicle delay at intersections						
(2) Effect on potential vehicle/bicycle conflicts						
<b>6. Private Parcels</b>						
(1) Impact on existing access	based on existing legal access locations and AutoTurn turning analysis					
(2) Visibility/sight lines entering exiting parcels						
<b>7. Landscape/Urban Design</b>						
(1) Personal security	adherence to CPTED					
(2) Ease of wayfinding						
(3) Protection and enhancement of environment						
<b>8. Feasibility</b>						
(1) Cost						
(2) Constructability						
(3) Phasing/Implementation						
(4) Utility Impacts						
(5) Design flexibility for future plans						
<b>9. Durability/Maintainability</b>						

# Next steps

June 2014	SFAB presentation
Summer 2014	Concept evaluation & preliminary cost estimates
Fall 2014	Draft report
	Present to stakeholders

# Questions?

Emily.ehlers@seattle.gov | (206) 684-8264

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



# Back pocket

