

# Northgate Ped/Bike Bridge



North Seattle College  
November 28, 2017



**Seattle**  
Department of  
Transportation

# Our mission, vision, and core values

**Mission:** deliver a high-quality transportation system for Seattle

**Vision:** connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

For **all**

# Presentation overview

- Project purpose and background
- Schedule and next steps
- Design revisions
  - Environmental constraints
  - Responding to NSC concerns
- Questions





# Northgate today



# Project goals

- Connect services and opportunities on the east and west sides of I-5
- Add a new, accessible walking/biking route in Northgate that connects to the citywide network
- Provide better access to regional transit, including the existing transit center and future Link light rail station





# Background, progress, and status

- **2006:** Northgate Coordinated Transportation Investment Plan
- **2012:** King County feasibility study
- **2014:** Early planning and design
  - 3 bridge alternatives
  - Public meeting
- **2015:** 30% design
  - Public meeting
- **2016:** Project put on hold
  - Independent cost validation
  - Formed new project team
- **2017:** New 30% design
  - Open house and survey (August)



August 2017 open house

# 2017 SDOT / NSC coordination

- Executive team presentation, May 2017
- 4 project coordination meetings
- 3 easement discussion meetings
- 3 environmental and regulatory related meetings



**NORTH SEATTLE  
COLLEGE**

*One of the Seattle Colleges*

# Timeline: Northgate Bridge

| Time                         | Action                                 |
|------------------------------|--|
| 1st quarter of 2018          | Federal and state environmental review |
| 1st and 2nd quarters of 2018 | Final design                           |
| 3rd quarter of 2018          | Publish advertisement for construction |
| 1st quarter of 2019          | Construction begins                    |
| 3rd quarter 2020             | Bridge opens                           |
| 2021                         | Link light rail station opens          |

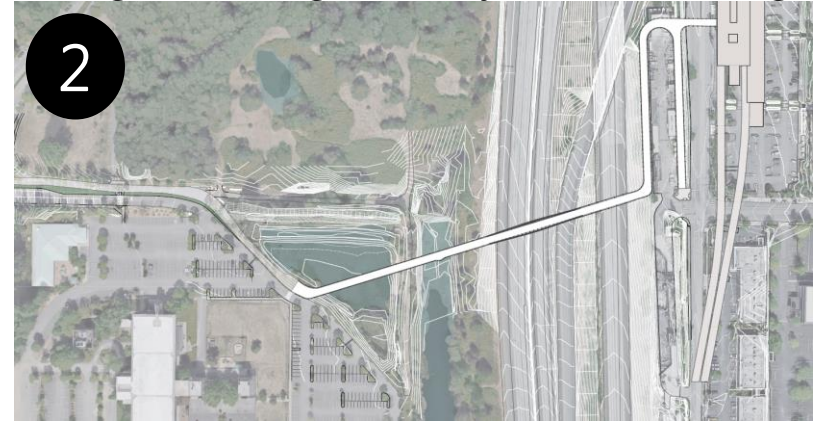


# Design revisions, 2017

Old design – 2015 (tube truss)



Original design – May 2017 (8.3% grade)



Previous design – Aug 2017 (berm)



Current design – Nov 2017





# Design revisions

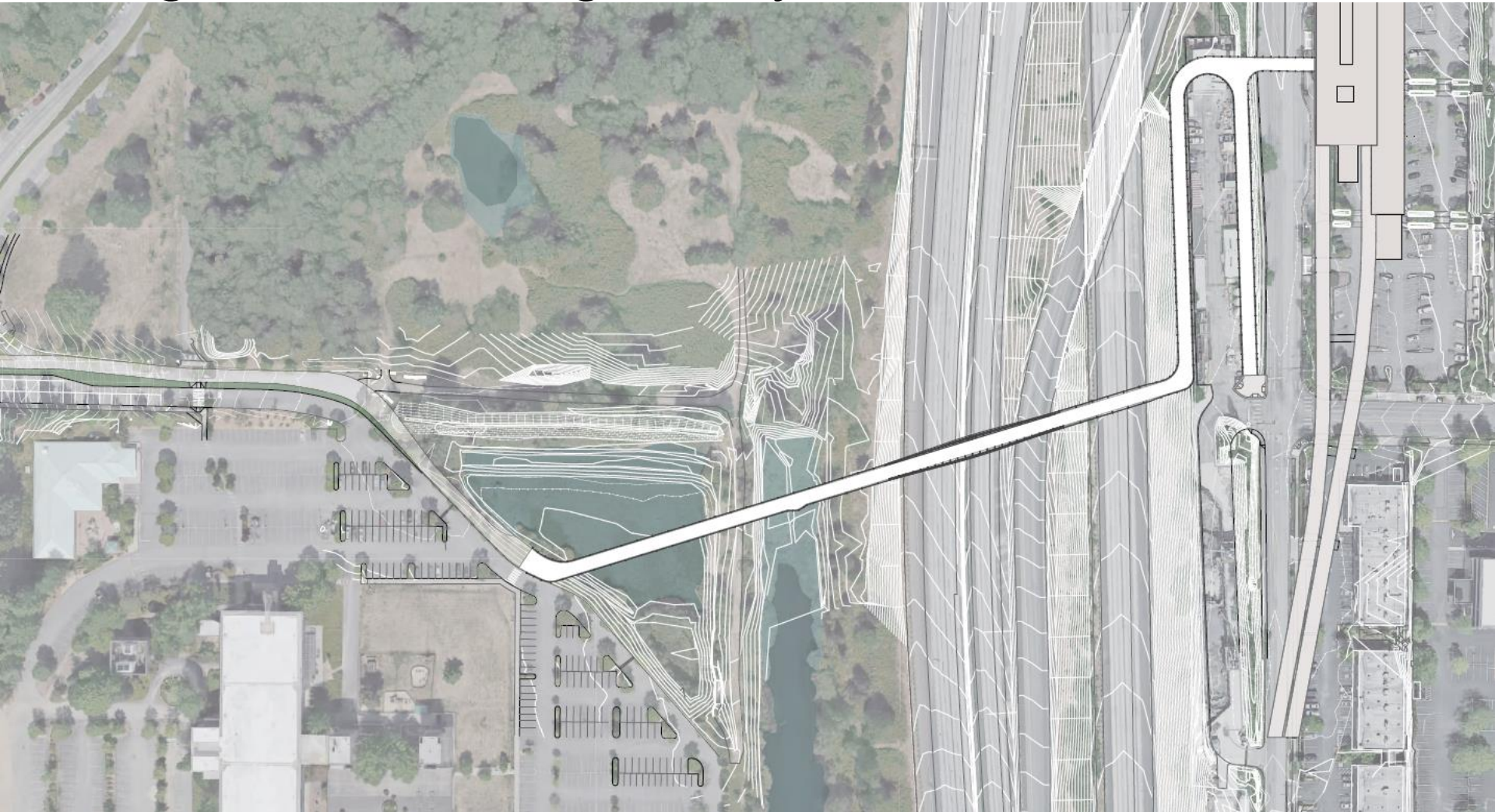
Old design – 2015





# Design revisions

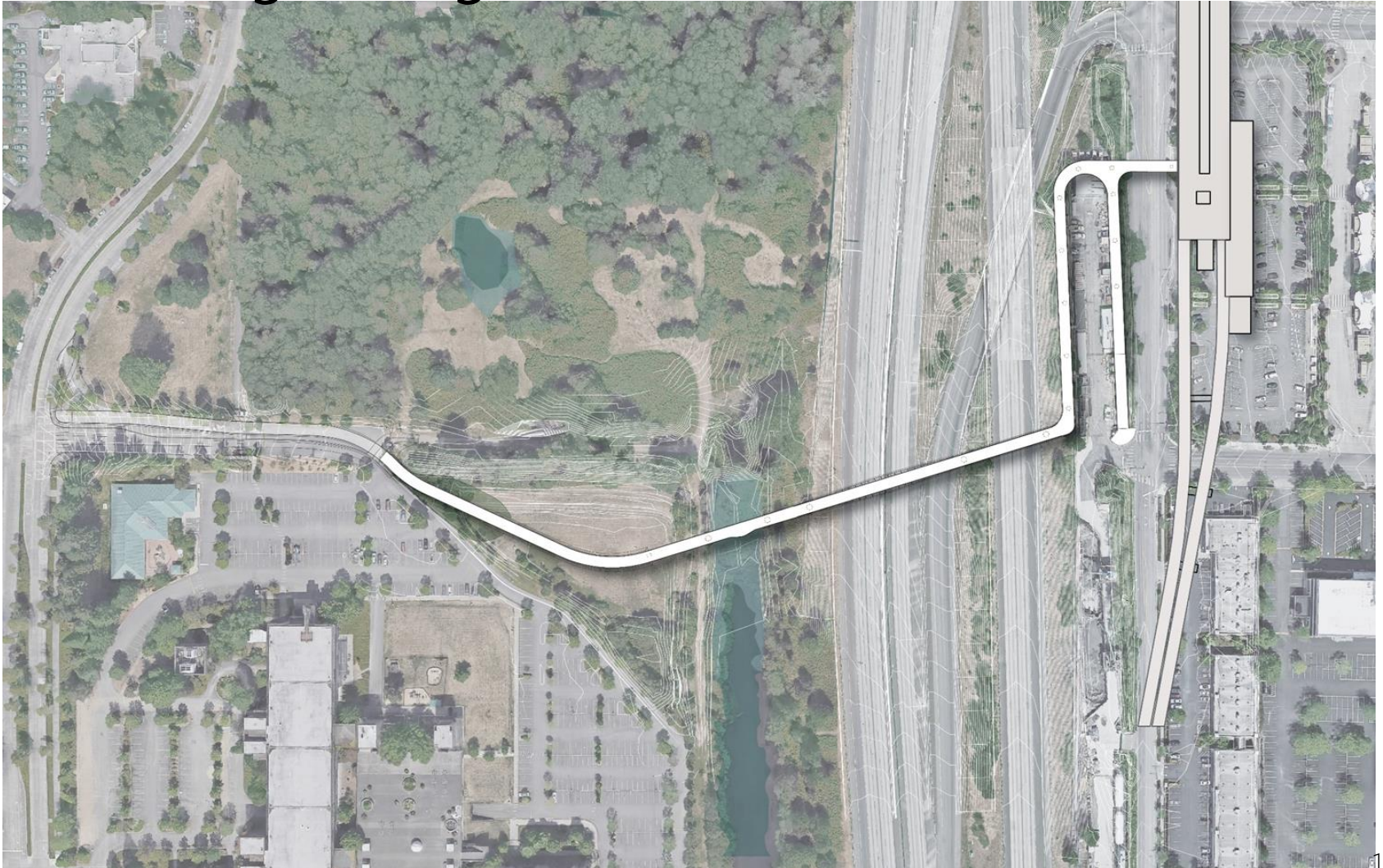
Original revised design – May 2017





# Design revisions

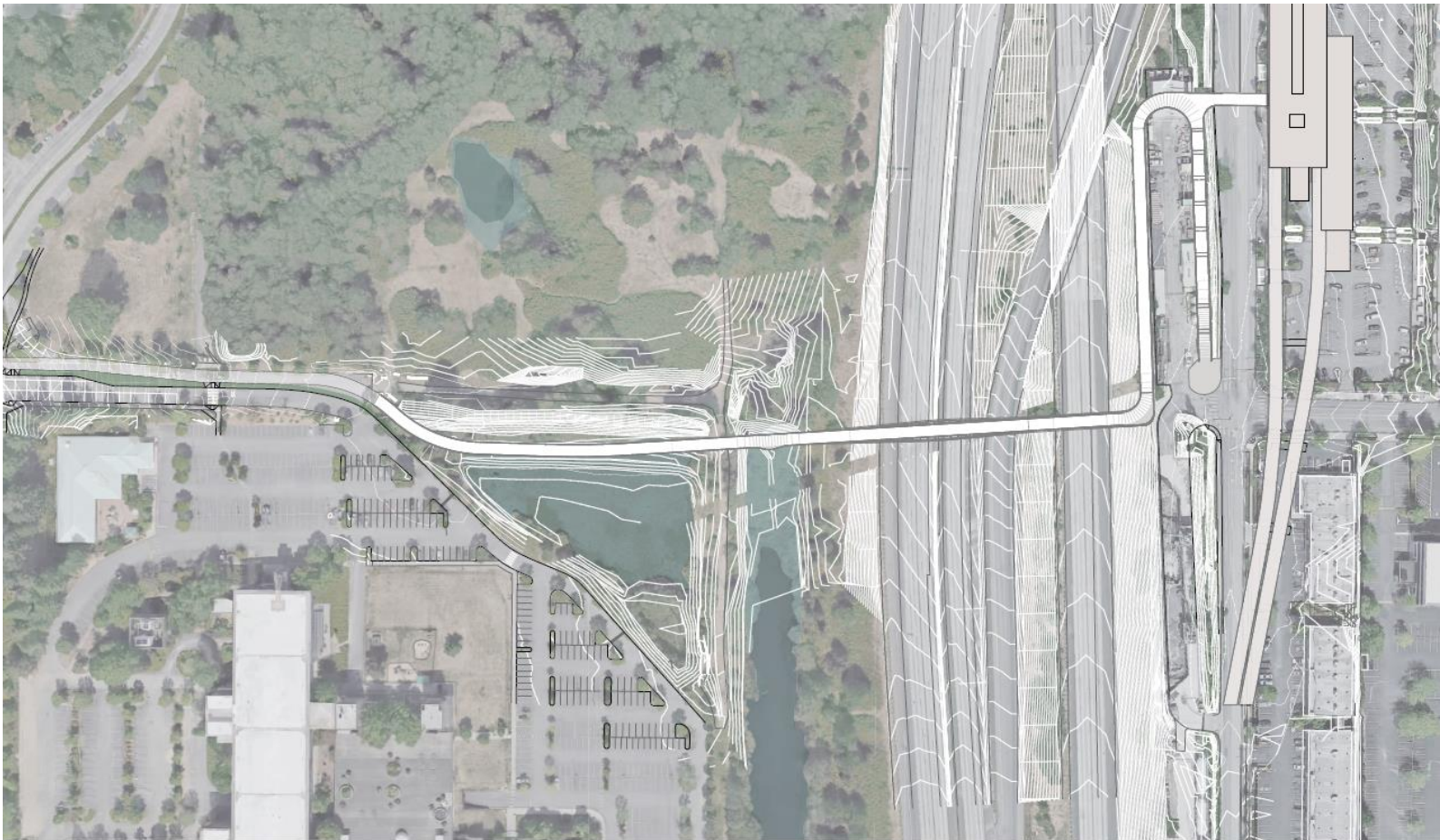
Berm design – August 2017





# Current design: straighter alignment

Moved bridge as far north as feasible, while avoiding or minimizing impacts to critical natural habitat, heritage trees, and federally-protected wetlands



# Current design: reduced bridge slope

Reduced slope from 8.3% to 4.8%



929' @ 4.80%

65'

491' @ 4.80%

131' @ 1.30-4.40%

TO SOUND TRANSIT

435' @ 1.80-8.10%



# Current design: preserving land

Moved the bridge landing away from abandoned ball field, preserving passive recreation and minimizing impacts to wetlands. Previous designs cut through this section of land.



# Current design: away from parking lot

Moved bridge away from parking lot to maintain public access connection to College Way N and NSC.



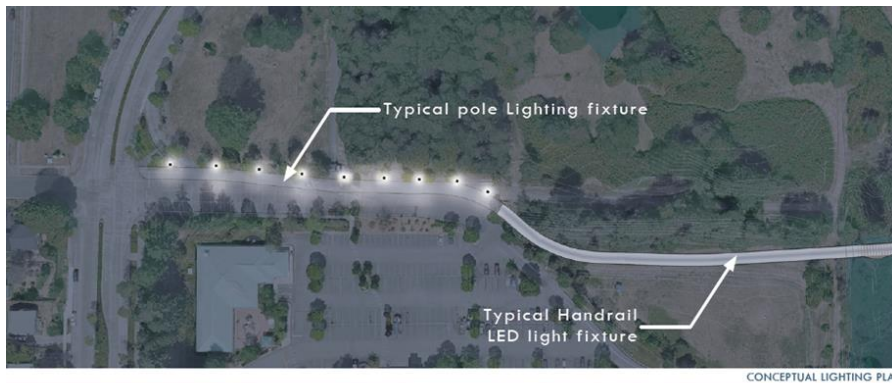


# NSC concern: accessibility

| NSC concern  | SDOT design adjustments   | Timing of design change    |
|--|---|----------------------------|
| <ul style="list-style-type: none"> <li>Maintain &lt;5% grade on approach ramp to bridge and college connections</li> <li>Interaction with parking lot</li> </ul> | <ul style="list-style-type: none"> <li>Bridge/trail connection distinct and separate from campus</li> </ul> | Original (May) – 2.0 (Aug) |
|  | <ul style="list-style-type: none"> <li>Landing and transition redesign</li> </ul>                           | Original (May) – 2.0 (Aug) |
|  | <ul style="list-style-type: none"> <li>Bridge grade reduced to 4.8%</li> </ul>                              | Original (May) – 2.0 (Aug) |
|  | <ul style="list-style-type: none"> <li>Extra-wide overlooks/rest areas on bridge</li> </ul>                 | 2.0 (Aug) – 3.0 (current)  |

# NSC concern: lighting

| NSC concern                                      | SDOT design adjustments  |
|--|--|
| Request for adequate lighting, without spillover | Specialized lighting system without spillover into wildlife sanctuary and campus |



Typical pole lighting fixture on path



Typical handrail LED light fixture

# NSC concern: security

| NSC concern   | SDOT design adjustments  | Timing of design change   |
|---|--|---|
| <p>Concern about potential liabilities associated with public use of north campus and parking lot</p> | <ul style="list-style-type: none"> <li>Expansive sight lines with open and transparent structure (improves CPTED)</li> </ul>         | <p>Ongoing</p>  |
|   | <ul style="list-style-type: none"> <li>Reduced areas below bridge</li> </ul>   | <ul style="list-style-type: none"> <li>Original (May) – 2.0 (Aug)</li> <li>2.0 (Aug) – 3.0 (current)</li> </ul> |
|   | <ul style="list-style-type: none"> <li>Added communications conduit on bridge with potential for future security features</li> </ul> | <p>2.0 (Aug) – 3.0 (current)</p>  |

# NSC concern: construction

| NSC concern             | SDOT design adjustments   | Timing of design change |
|-------------------------|---|-------------------------|
| Construction conditions | <ul style="list-style-type: none"><li>• Minimized construction access impacts</li><li>• Retained existing maintenance road and Bartonwood Sanctuary access on 100th St corridor</li></ul> | Ongoing                 |



# NSC concern: alignment

| NSC concern   | SDOT design adjustments  | Timing of design change   |
|---|--|---------------------------|
| Request to rotate bridge to follow a "straight" alignment | <ul style="list-style-type: none"> <li>Structure redesign to preserve valuable college property</li> </ul> | 2.0 (Aug) – 3.0 (current) |
|   | <ul style="list-style-type: none"> <li>Use of existing berm to minimize impact</li> </ul>                  | 2.0 (Aug) – 3.0 (current) |
|   | <ul style="list-style-type: none"> <li>Eliminated impact to surge ponds</li> </ul>                         | 2.0 (Aug) – 3.0 (current) |
|   | <ul style="list-style-type: none"> <li>Reduced impact to existing parking</li> </ul>                       | 2.0 (Aug) – 3.0 (current) |

# NSC concern: college connections

| NSC concern   | SDOT design adjustments  | Timing of design change    |
|---|--|----------------------------|
| Request to provide a dedicated ADA-compliant pedestrian connection between the ped/bike facility and central campus | <ul style="list-style-type: none"><li>• New multi-use path from bridge to College Way intersection</li></ul>   | Original (May) – 2.0 (Aug) |
|   | <ul style="list-style-type: none"><li>• Wayfinding signs along the path to direct users to destinations (e.g., North Seattle Neighborhood Greenway) and existing College access points</li></ul> | Ongoing                    |

# NSC concern: plantings and landscaping

| NSC concern               | SDOT design adjustments   | Timing of design change |
|---------------------------|---|-------------------------|
| Plantings and landscaping | <ul style="list-style-type: none"><li>• Custom selection of planting species</li><li>• Plantings to minimize maintenance and address visibility</li><li>• Enhanced sustainability in preservation of wetlands, existing stormwater pond, trees, and rockeries</li></ul> | Ongoing                 |

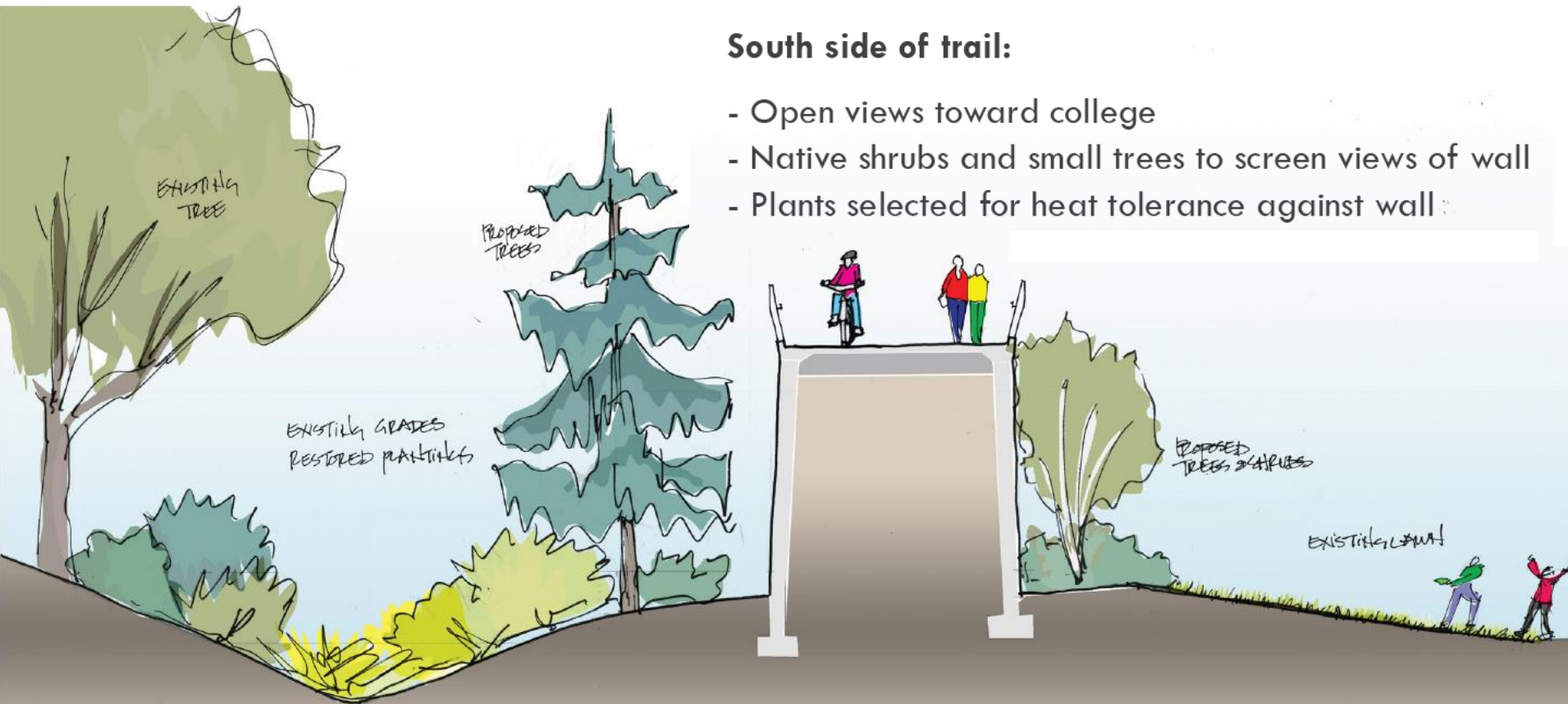
# Landscaping

## North side of trail:

- Native forest and wetland habitat plants

## South side of trail:

- Open views toward college
- Native shrubs and small trees to screen views of wall
- Plants selected for heat tolerance against wall



**WEST-TRAIL AT RETAINING WALL - 16'-20' SE WALL SECTION**

1/4" = 1'-0"

# Landscaping (cont.)

Both sides:

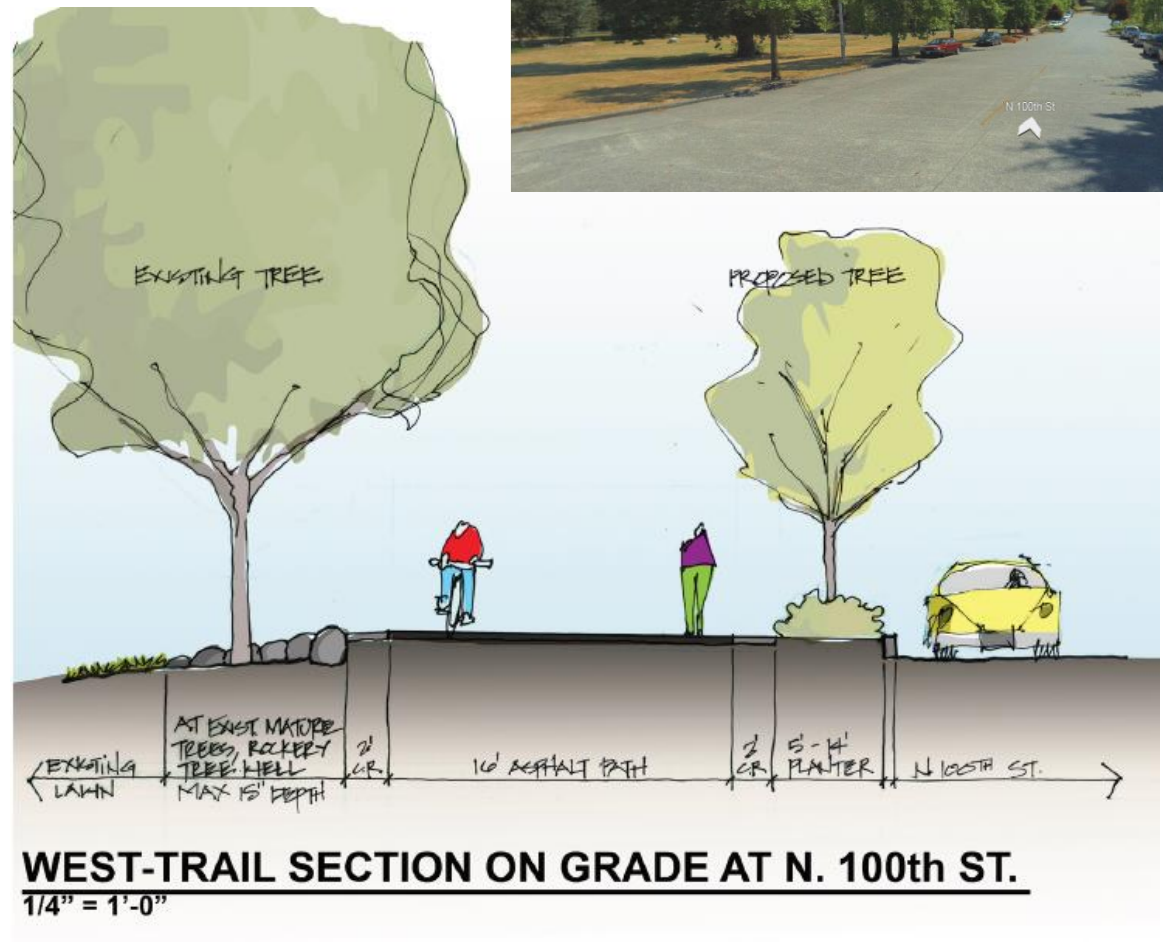
- Open views to both sides

North side of trail:

- Blend in to existing park-like landscape of grass and trees
- Preserve existing large trees where possible, protect low rockeries as needed

South side of trail (planting strip):

- Native or adapted groundcovers, shade trees, complementary to existing





# Regulatory constraints on bridge alignment

- US Department of Transportation Act of 1966 – Section 4(f)
- Clean Water Act of 1972 – Sections 401 & 404
- State Water Pollution Control Act of Washington
- Growth Management Act (1995)- Critical Areas
- City of Seattle – Environmentally Critical Areas Ordinance
- City of Seattle Tree Ordinance

# What is Section 4(f)?

- Applies to federal transportation projects
- Protects publicly owned parks, recreation areas, wildlife, waterfowl refuges, and historic sites
- Federal Highway Administration (FHWA) decides which resources are protected under Section 4(f) and whether the law allows 'use' of that resource

# Section 4(f) resources on the NSC campus

- Bartonwood Sanctuary
- Abandoned ballfield south of N 100th St
- Kumasaka Farmhouse
- Campus Trail network
  - N 100th St (vacated)
  - Corliss Ave N (vacated)
  - Meridian Ave N (vacated)
- Greenbelt



# Environmentally critical areas

- Wetlands
- Steep slopes
- Flood-prone areas
- Tree protection





# Existing conditions and wetlands

- Impacts of concern:
  - Dredge and fill, discharge to wetlands
  - Loss of wetland function
  - Habitat removal/loss
  - Watershed impacts
- Project must select least environmentally damaging practicable alternative
- Mitigation through creation, restoration, enhancement, or preservation of other wetlands greater than 1:1

# Existing conditions and wetlands





# Summary of current design

- Designed for site constraints
- Preserves valuable land
- Maintains connection to College Way N and NSC
- Minimizes impacts to wetlands and natural habitat
- Meets Sound Transit's schedule and our project budget





# Questions?

NorthgateBridge@seattle.gov | (206) 615-0925  
[www.seattle.gov/transportation/northgatepedbridge.htm](http://www.seattle.gov/transportation/northgatepedbridge.htm)

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