

Marquam Hill Connector
Green Ribbon Committee Meeting #3
April 10, 2019

Agenda

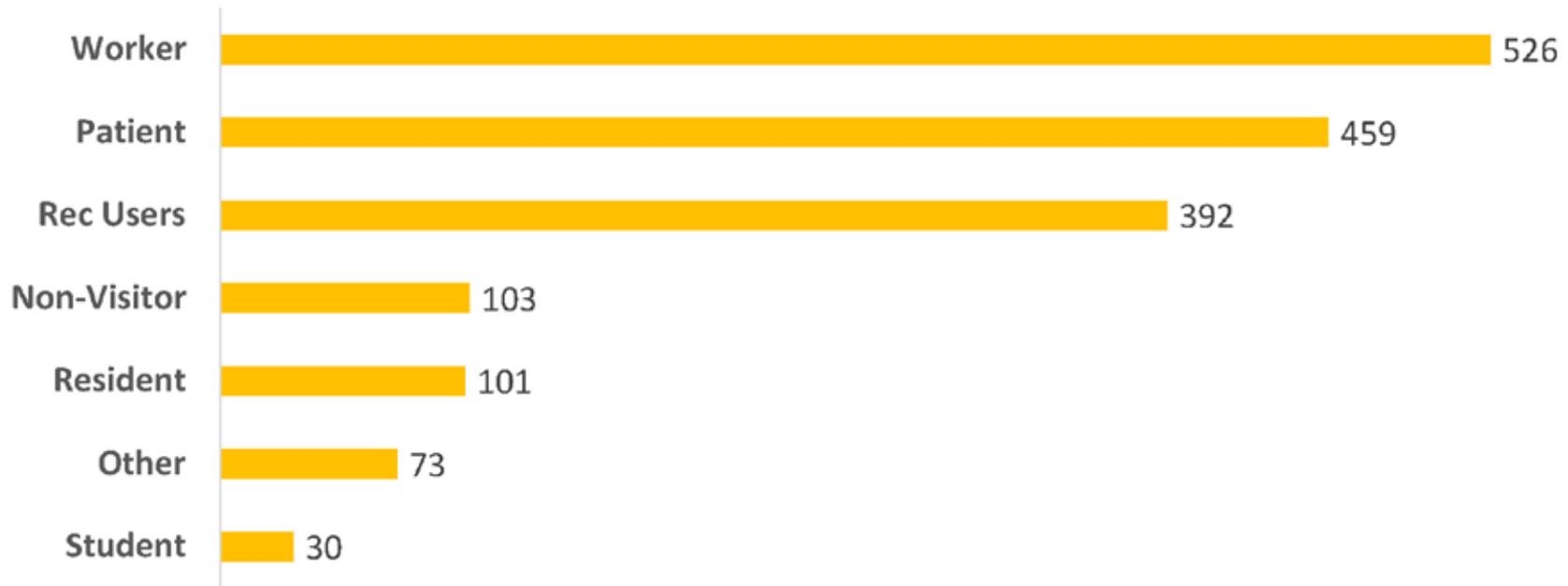
- 4:00 – 4:15 Public Comment
- 4:15- 4:25 Public Engagement: Survey Report & Look Ahead
- 4:25- 5:10 Review & Evaluation of Connector Type Options
- 5:10- 6:00 Connector Type Discussion

Marquam Hill Connector Goals Survey

March 18 – April 1

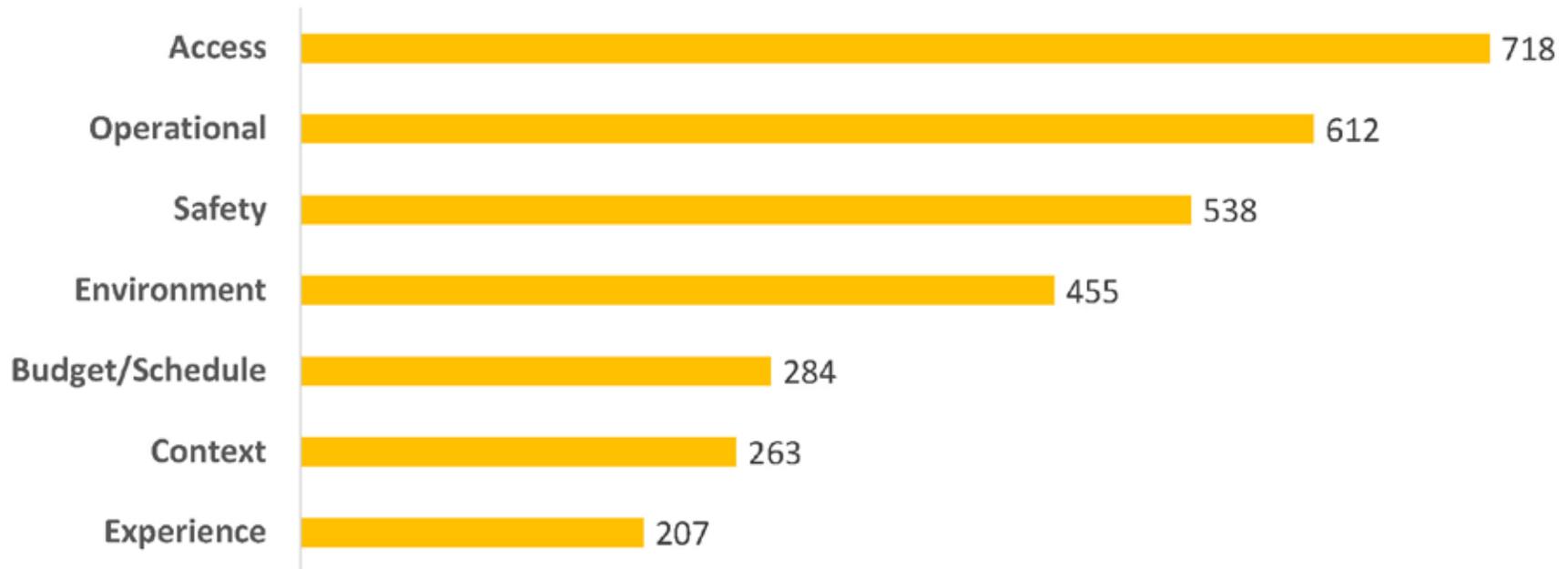
Total Responses:	1,017
Total Comments:	303

Respondent Types



Number of Responses
Note: Respondents could choose multiple

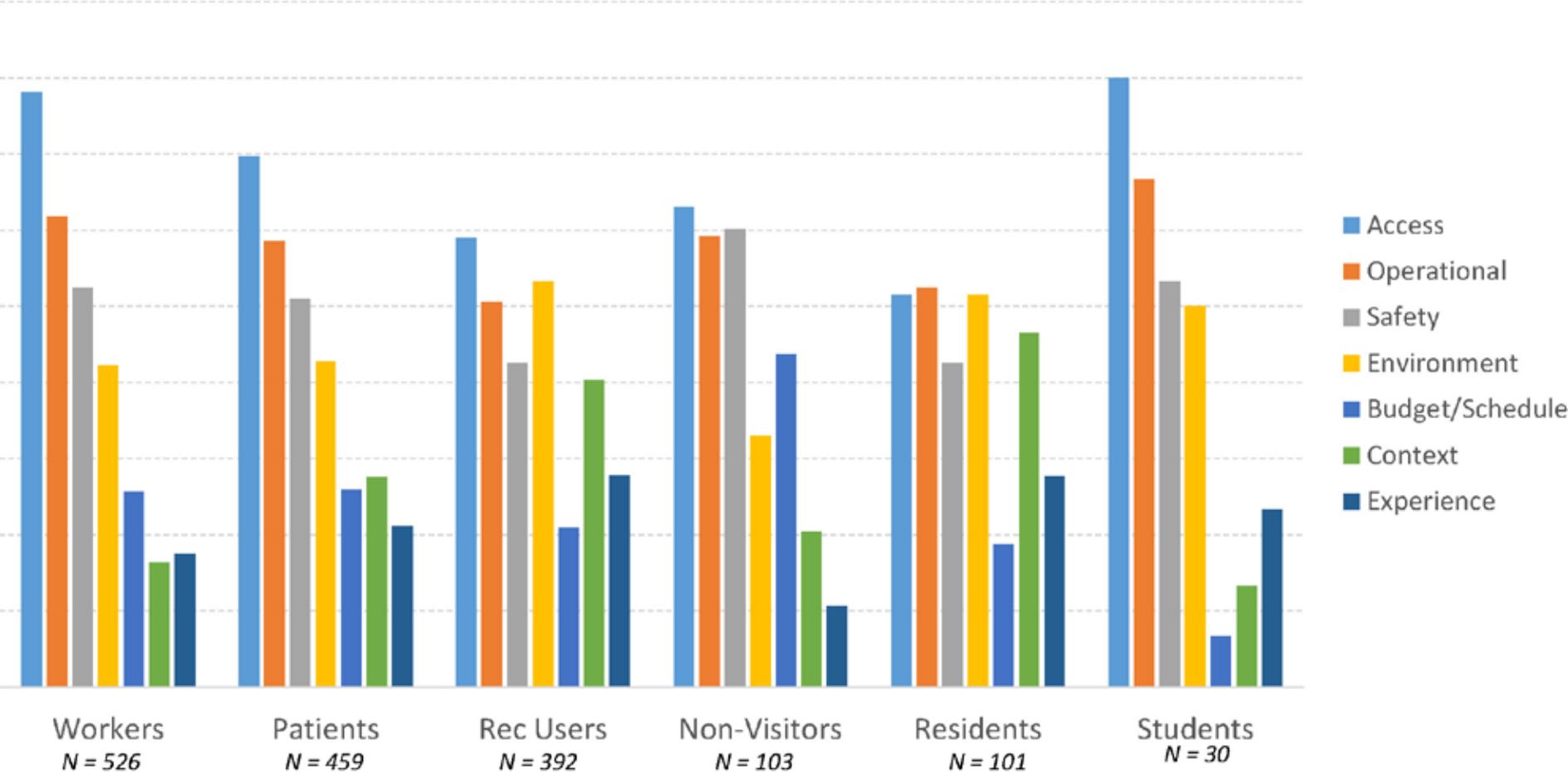
Most Important Goals



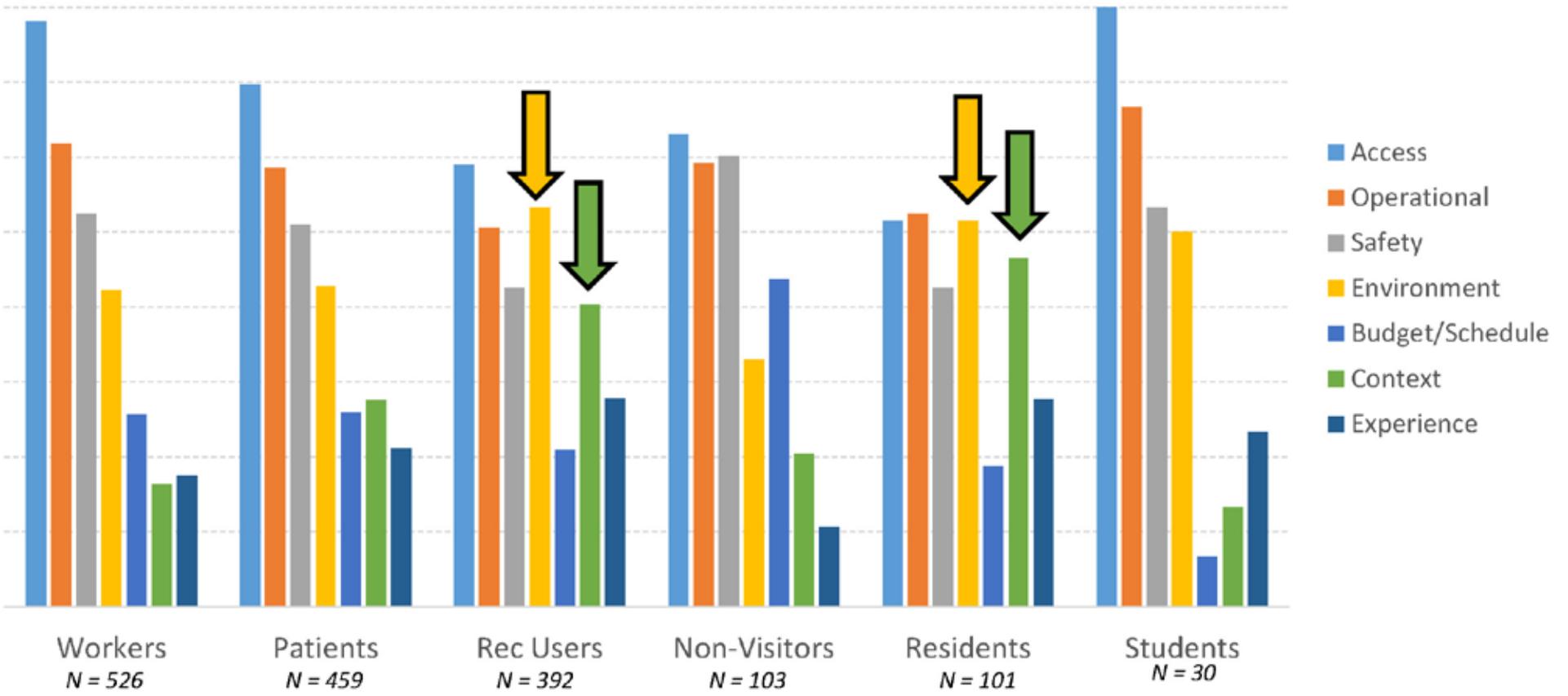
Number of Responses

Note: Respondents were asked to choose three

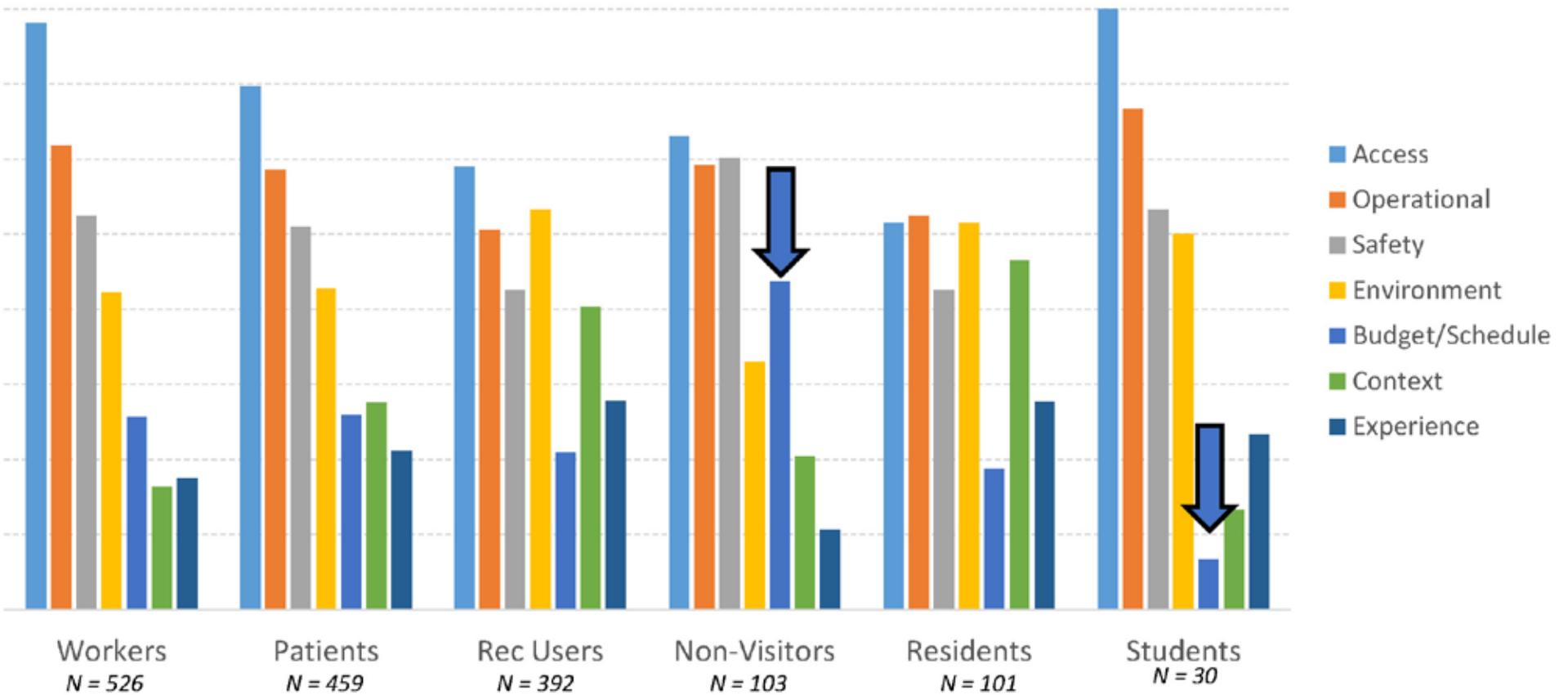
Most Important Goals



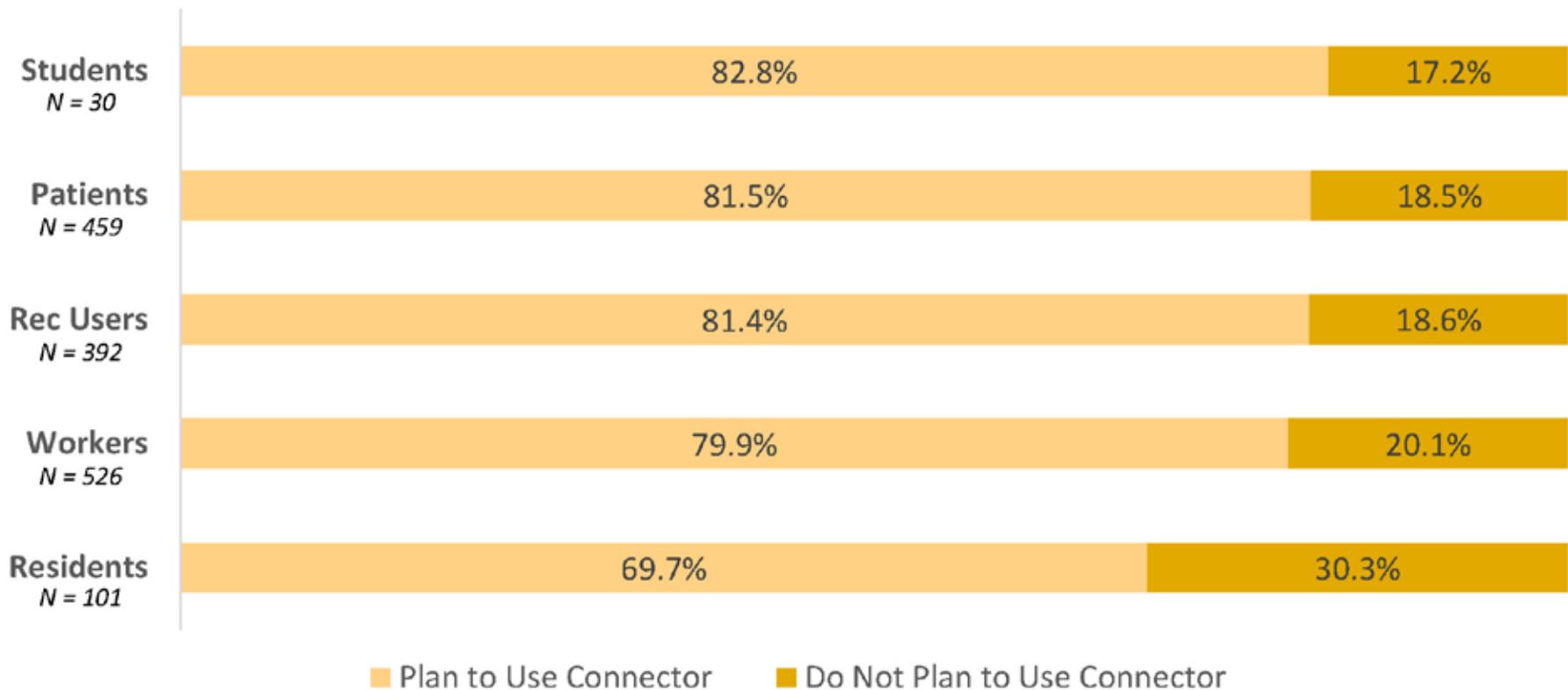
Most Important Goals



Most Important Goals



Likely Users of the Connector



Big Comment Themes

- **Fast, efficient, and convenient.**
- **Protect the natural and historic environment.**
- **Minimize neighborhood impacts (i.e. traffic/parking/noise/light).**
- **Consider limited mobility needs.**
- **Make sure it is safe.**

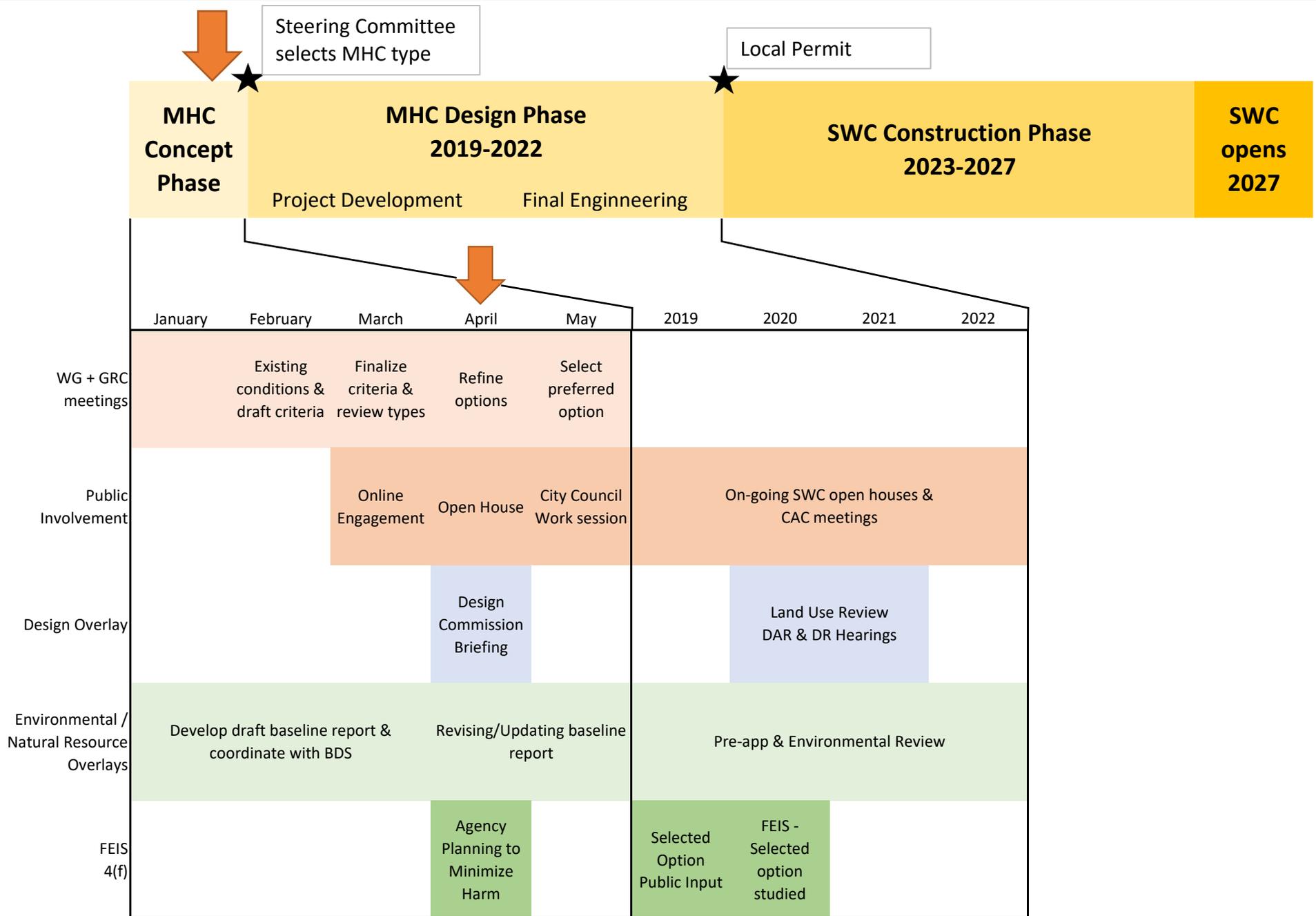
Other Comments

- **Use of bikes.**
- **Extended hour access to OHSU.**
- **Weather protection.**
- **Connections to the South Waterfront.**

Public Engagement Look Ahead

- Open House TODAY (3 – 7:30pm)
- Online Open House April 15 – April 29
- Committee on Accessible Transportation (CAT) April 11
- Portland Design Commission Briefing April 18
- Portland City Council Work Session May 7

Where we are in the process...

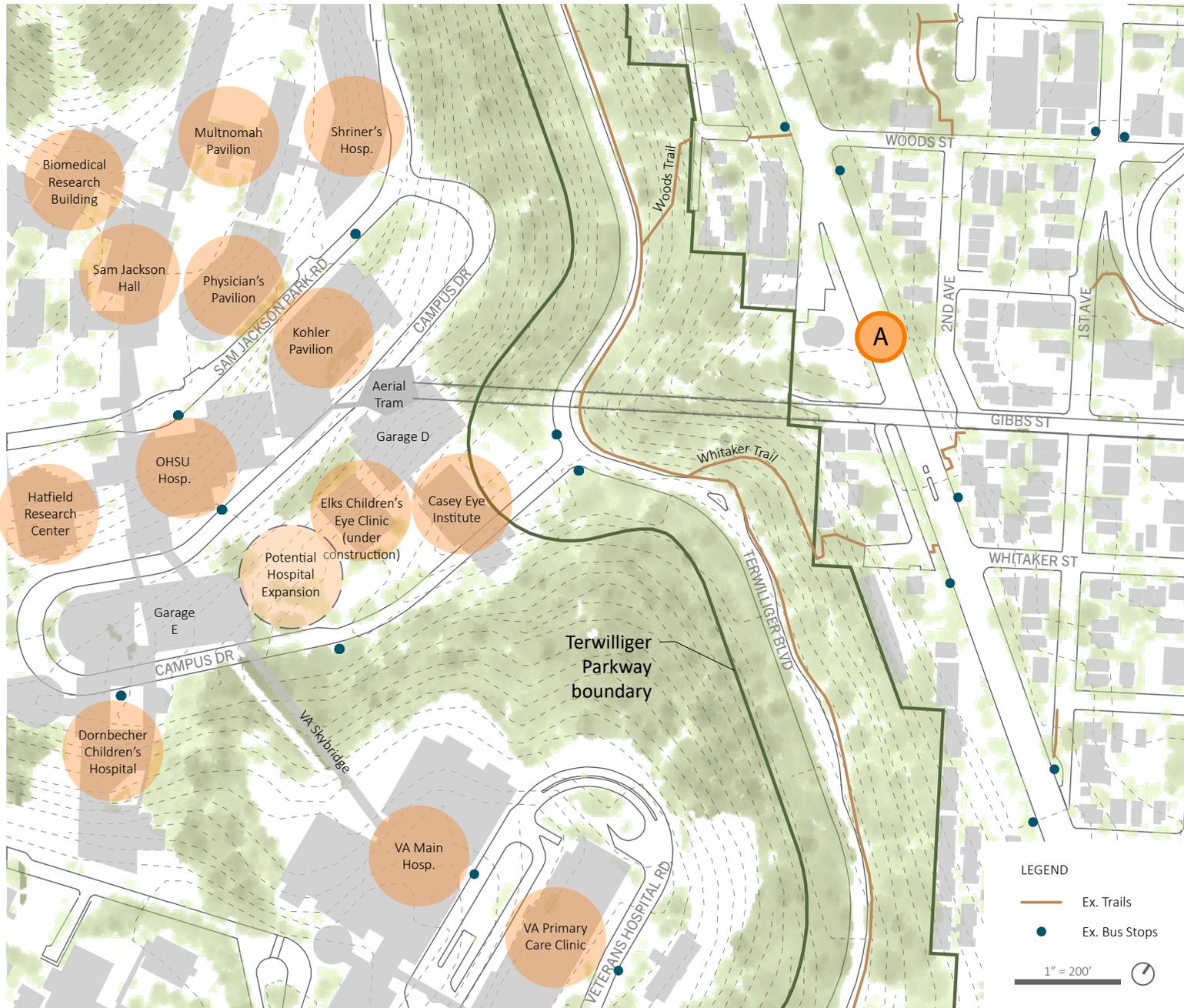


Focus Topics from March GRC

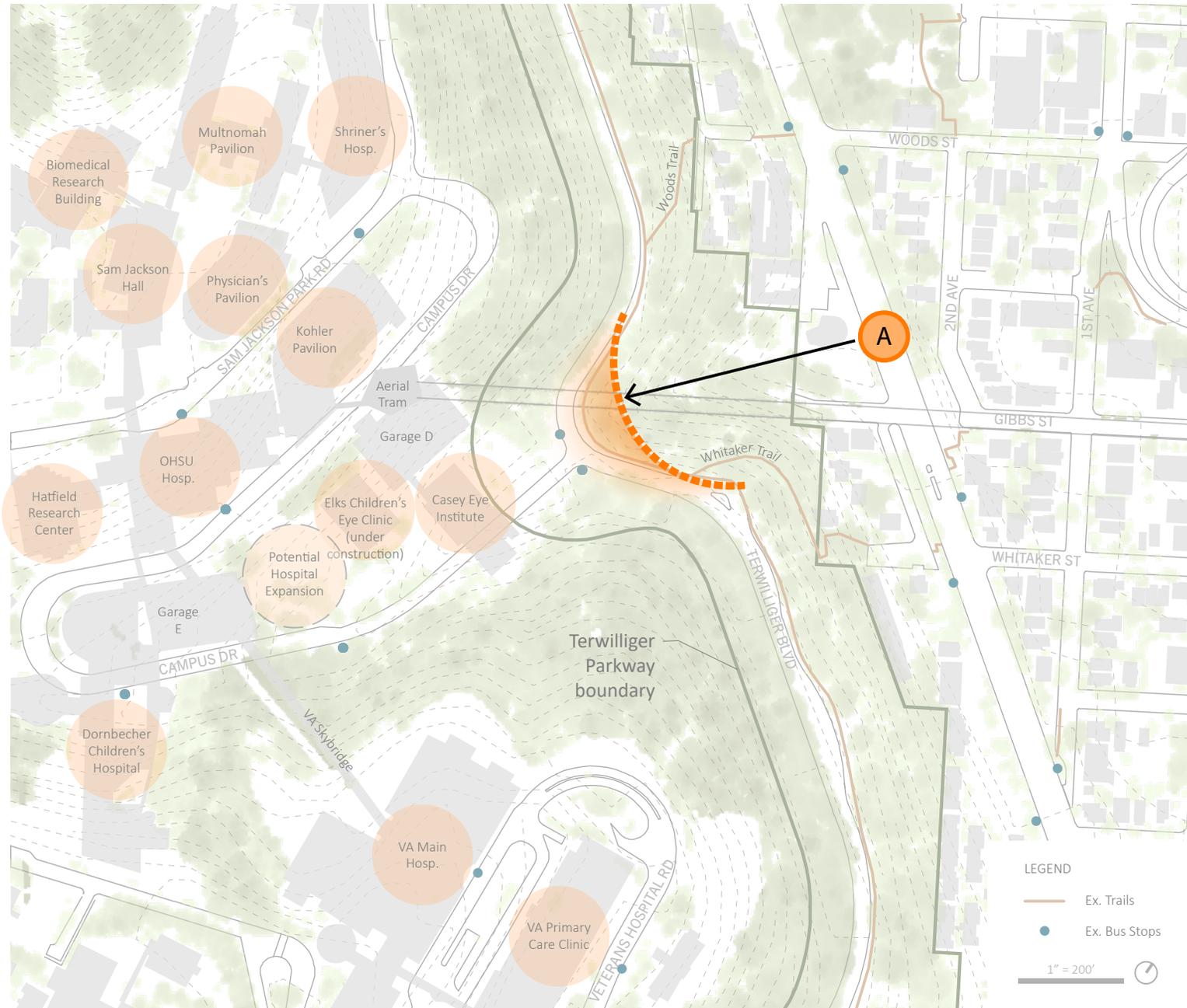
Types to study further:

- Bridge + Elevators
- Funicular/Inclined Elevator
- Tunnel + Elevators
- Aerial Tram (cost analysis)
- At-grade Crossing
- Undercrossing

Where are we going?



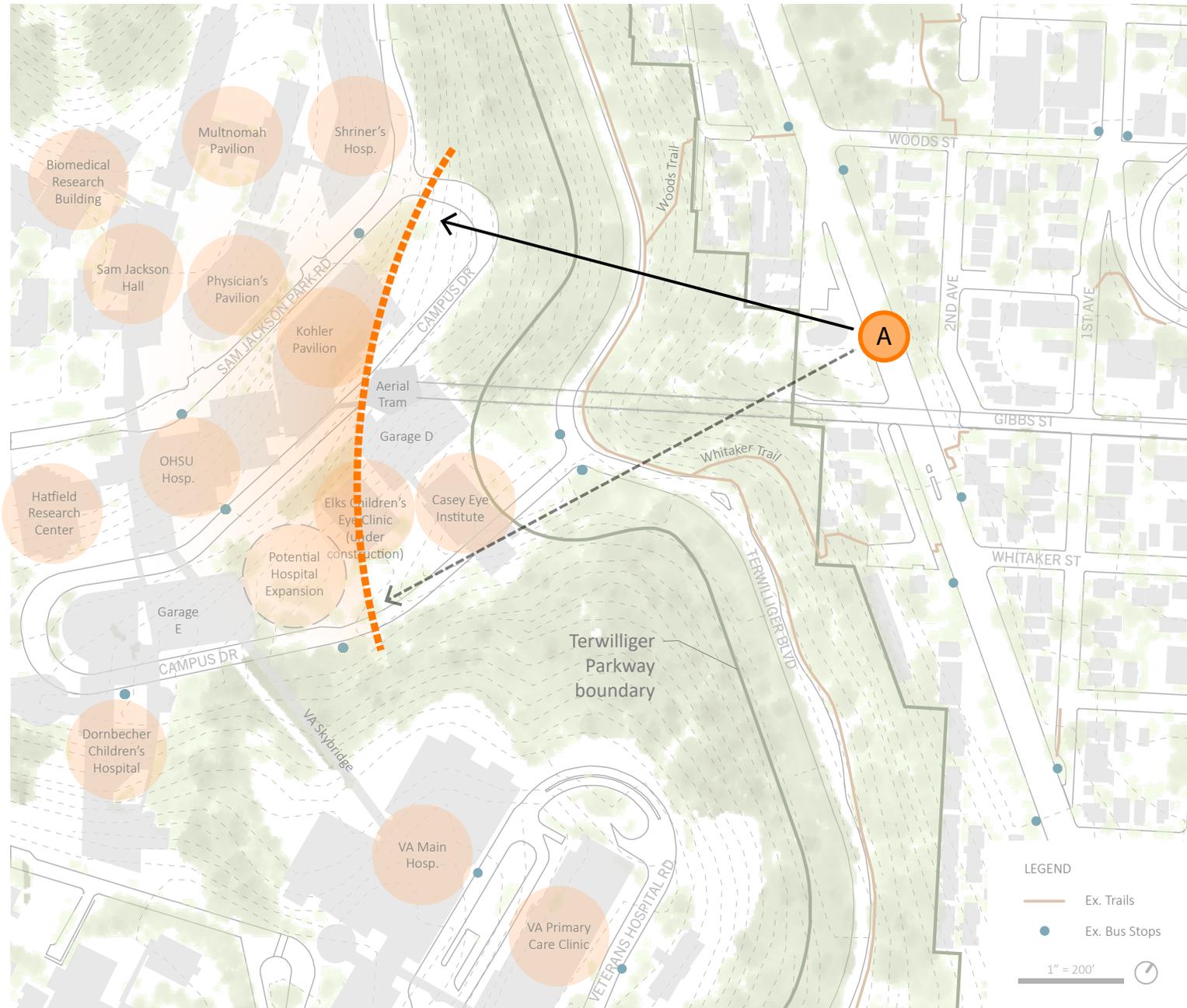
Gibbs Station to Terwilliger Blvd



Gibbs Station to Parkway Boundary



Gibbs Station to OHSU Interior



Inclined Elevators

Precedents



Ljubljana, Slovenia



Edmonton, Canada

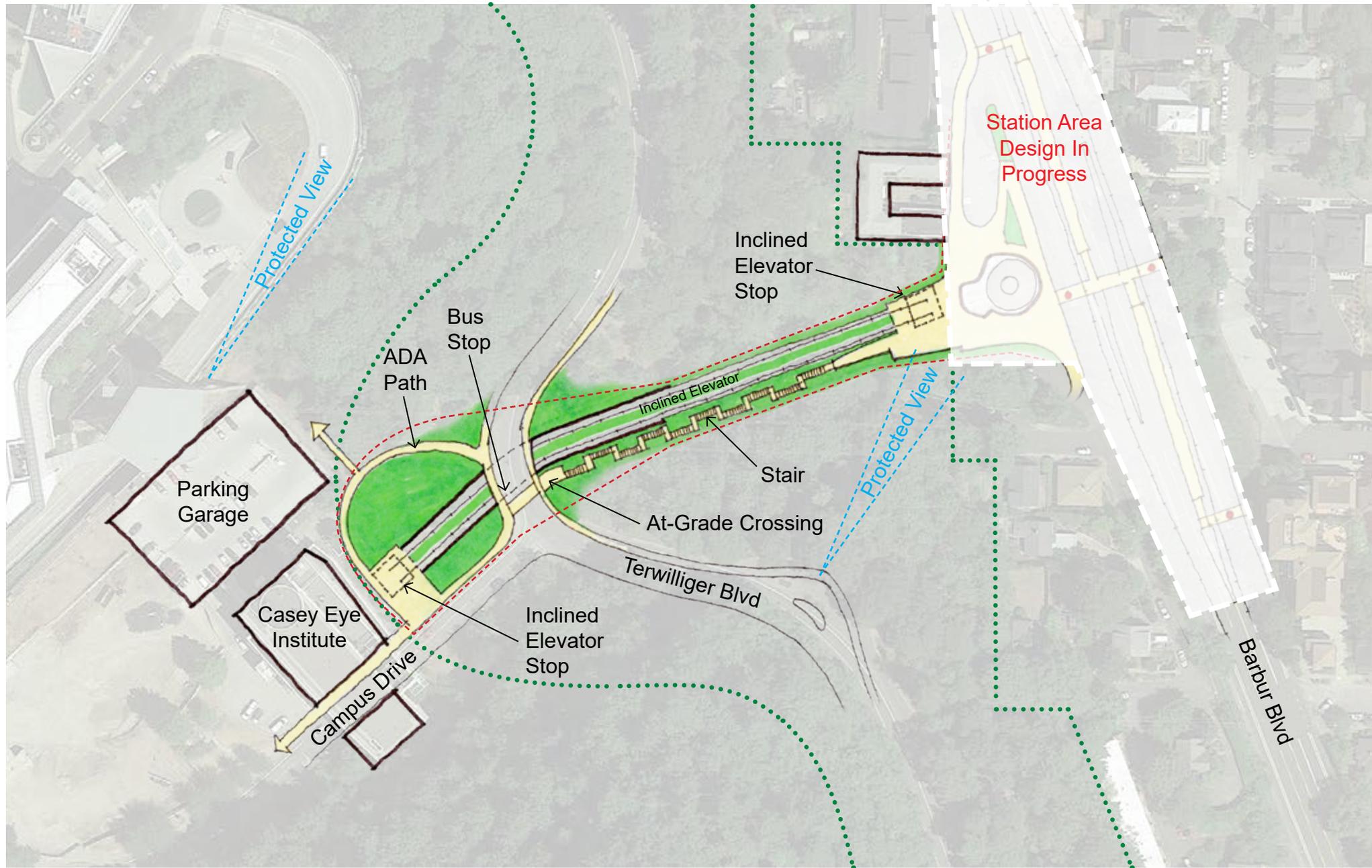


Deer Crest, Utah



Montmartre, Paris

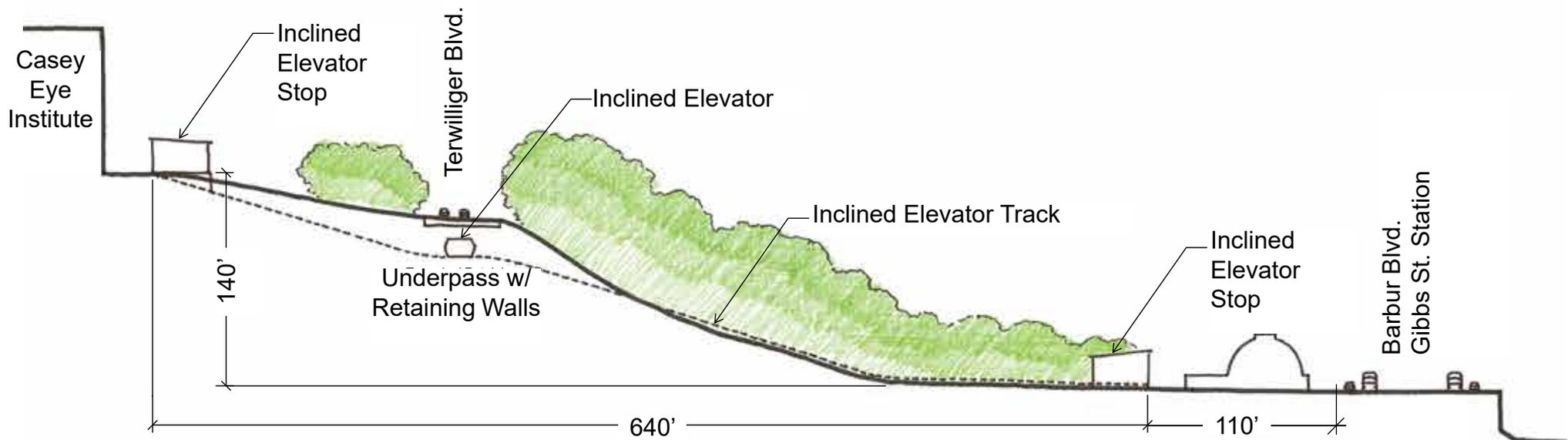
Inclined Elevators - Plan



Inclined Elevators - View from base



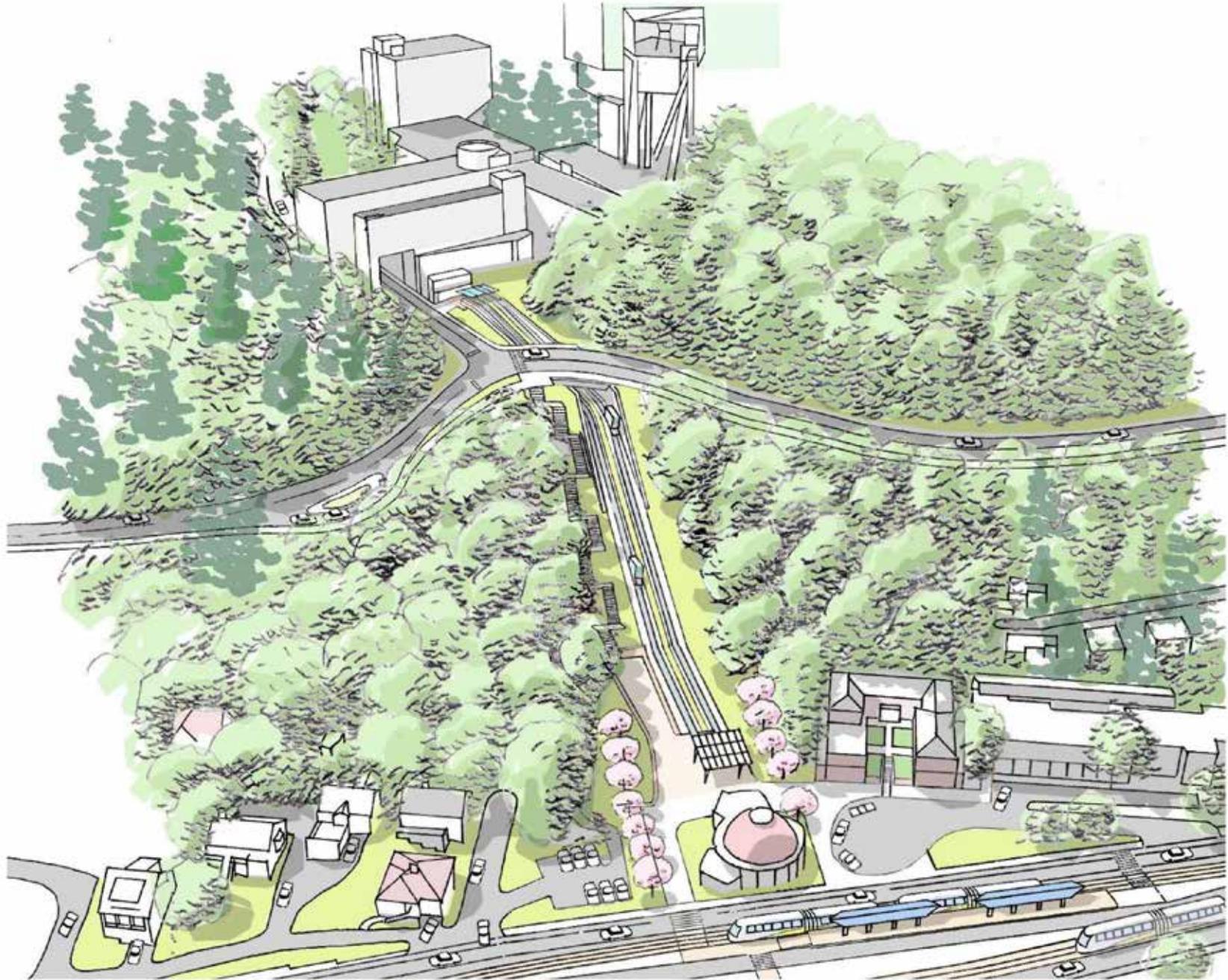
Inclined Elevators - Section



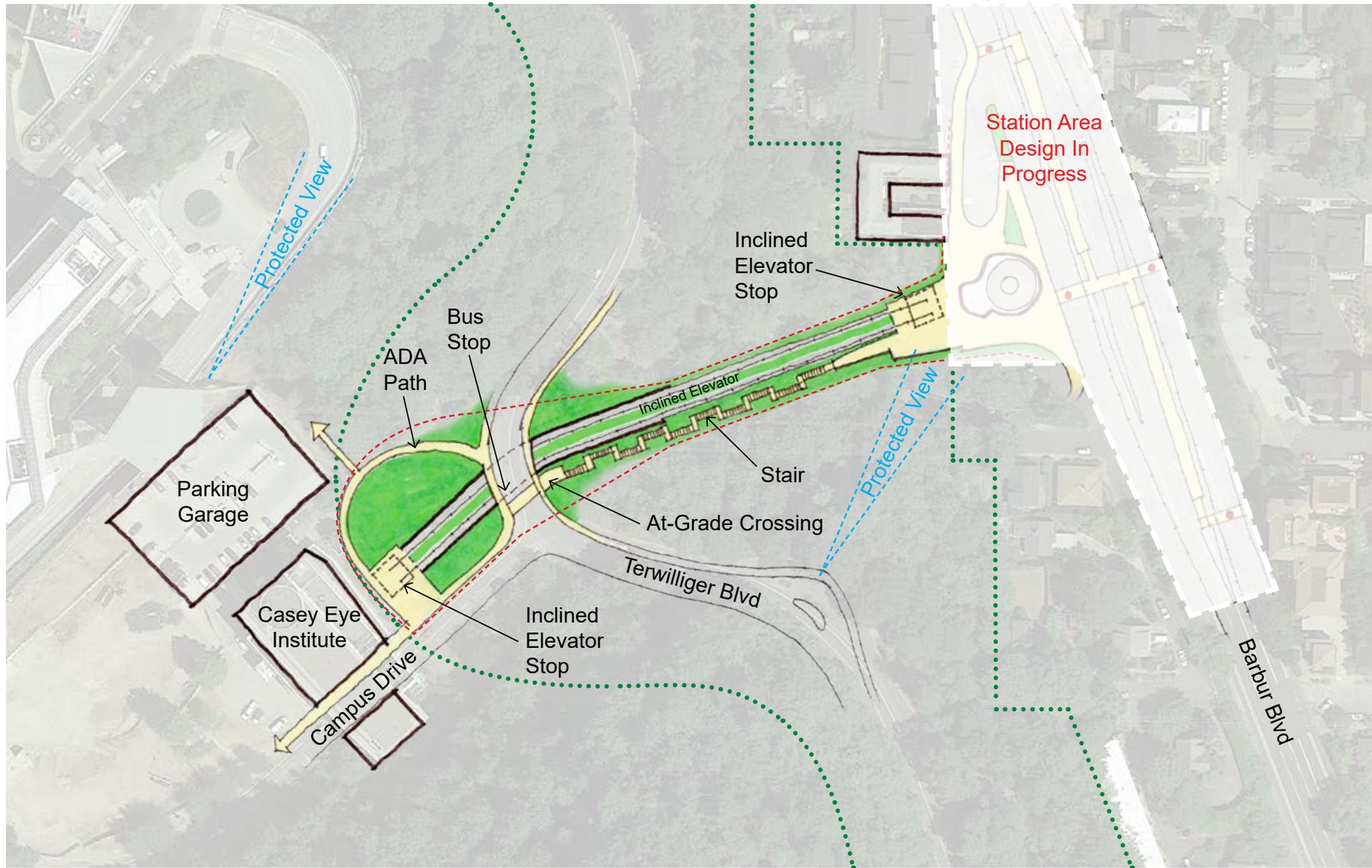
Inclined Elevators - Stairway



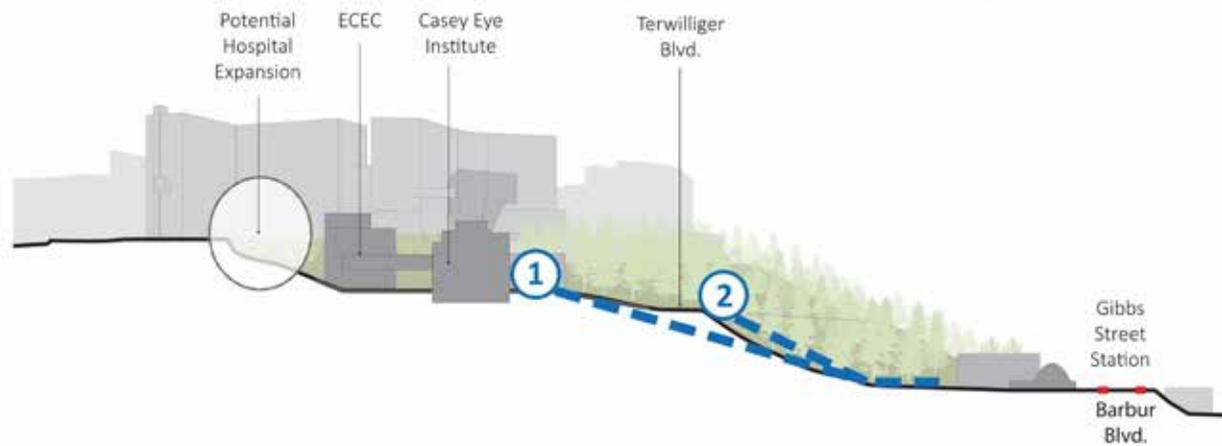
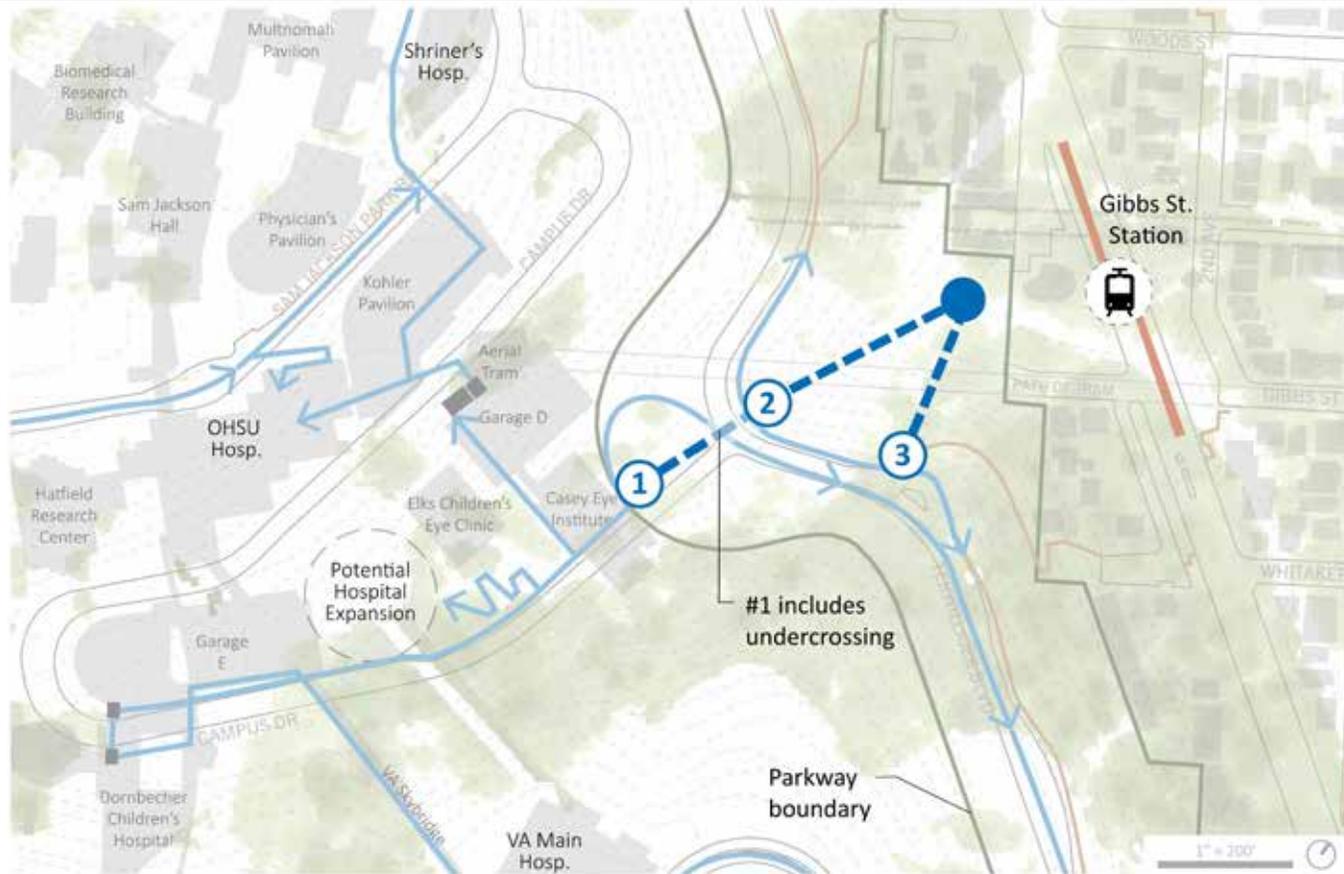
Inclined Elevators - Aerial View



Inclined Elevators - Plan



Inclined Elevators- Potential Alignments



Bridge + Elevators

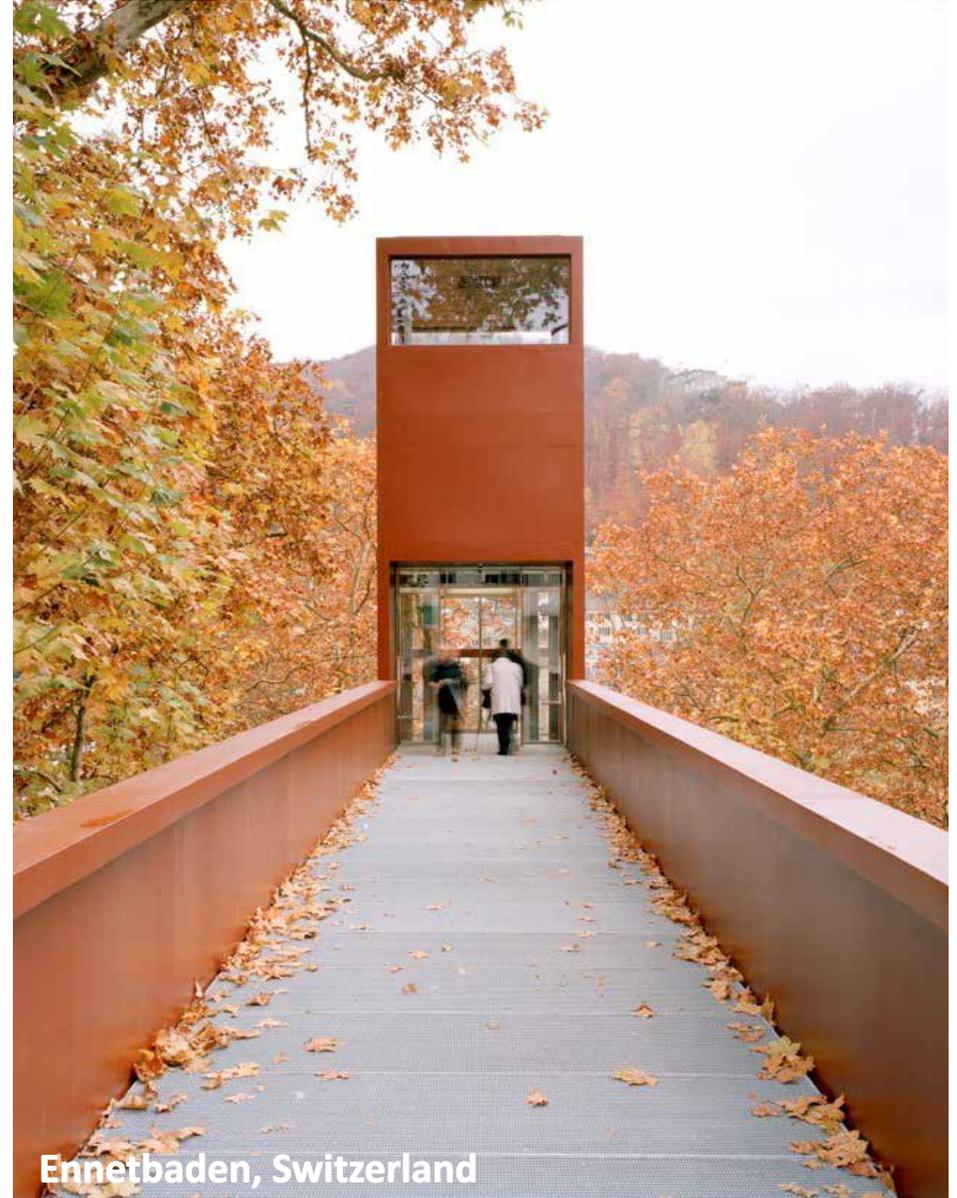
Precedents



Edmonton, Canada

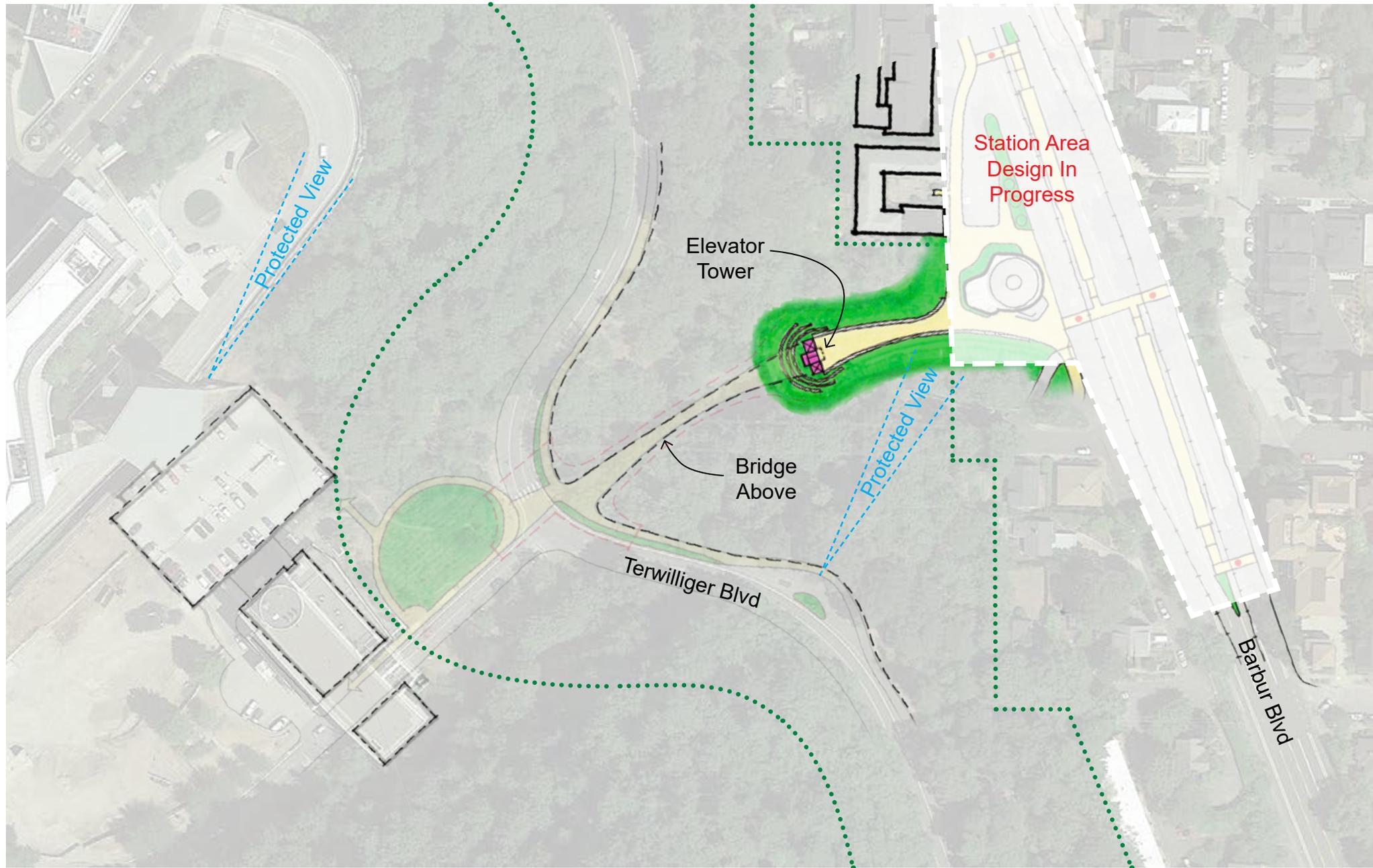


Neckartenzlingen, Germany

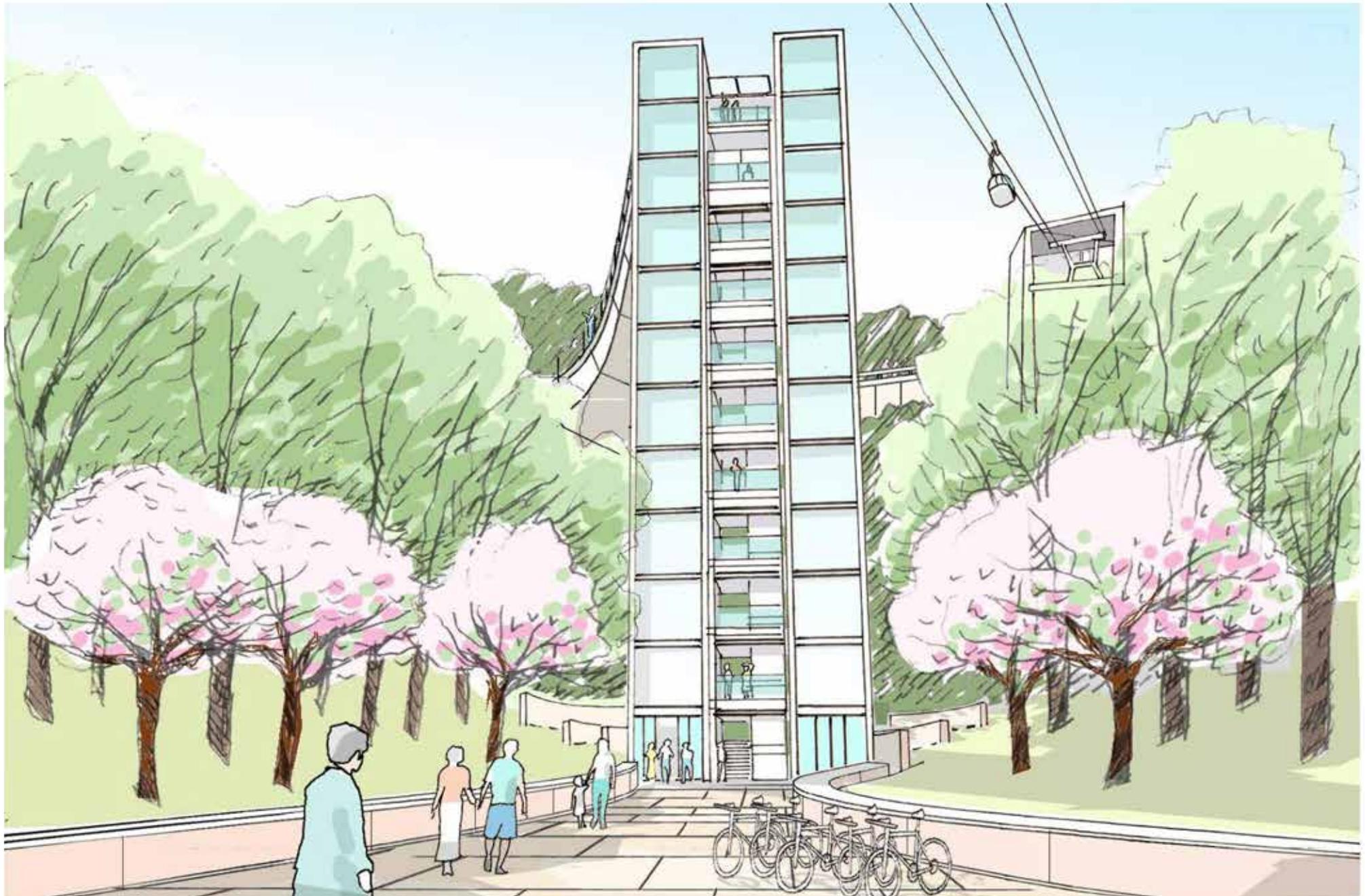


Ennetbaden, Switzerland

Bridge + Elevators to Terwilliger (Lower Level)



Bridge + Elevators - View west from base



Bridge + Elevators - Overlooks

Precedents

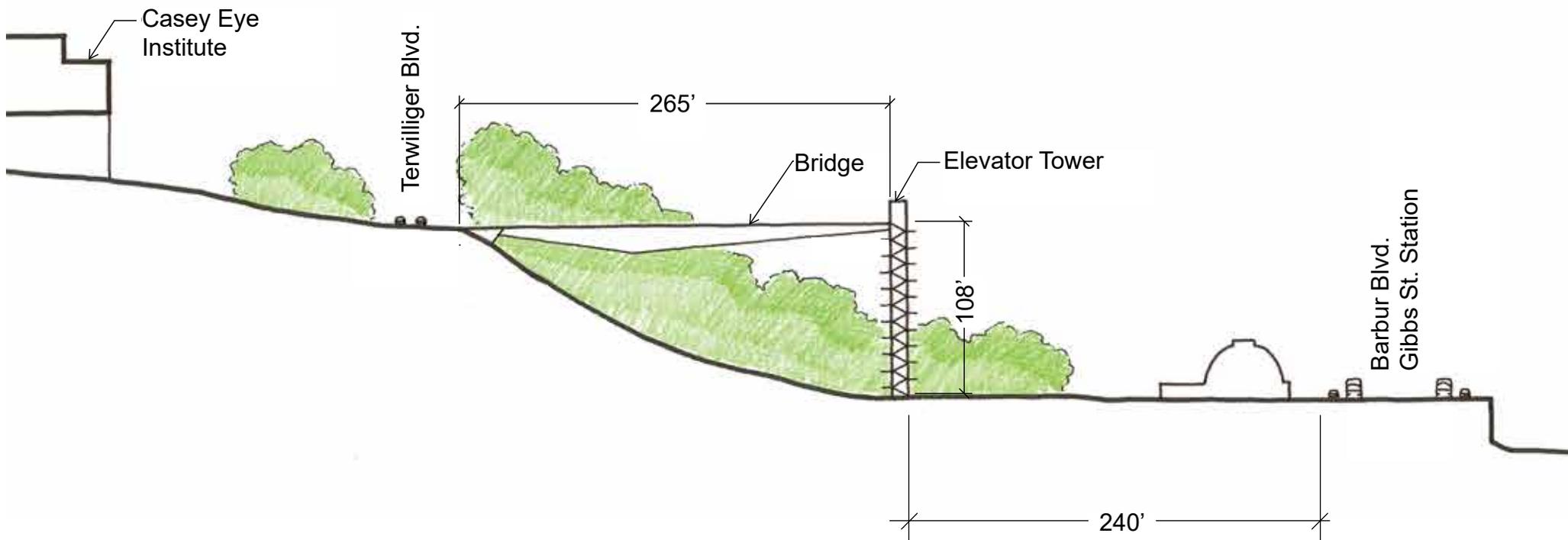


Darlene Hooley Pedestrian Bridge



Pescatore Park, Luxembourg

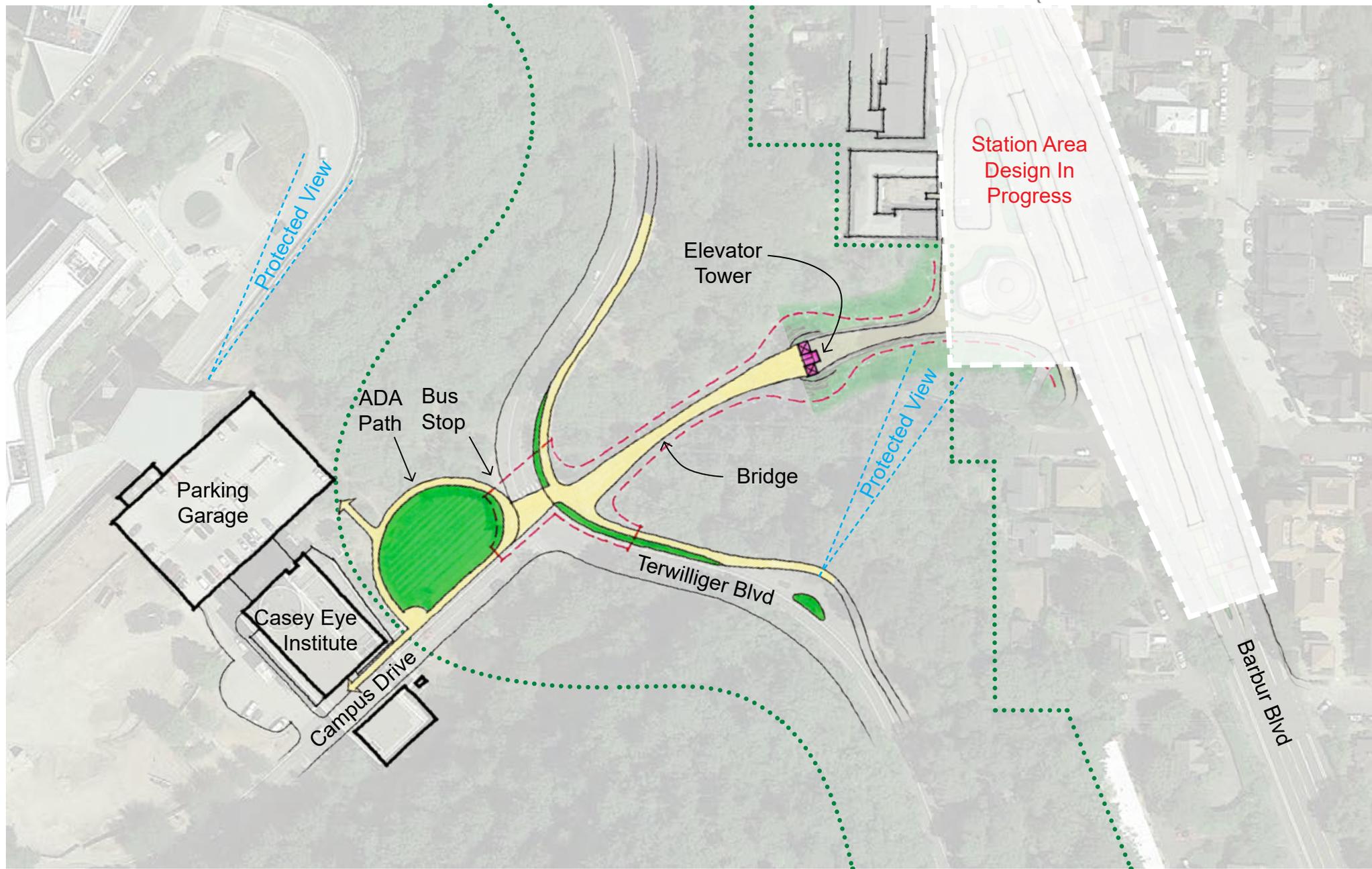
Bridge + Elevators - Section



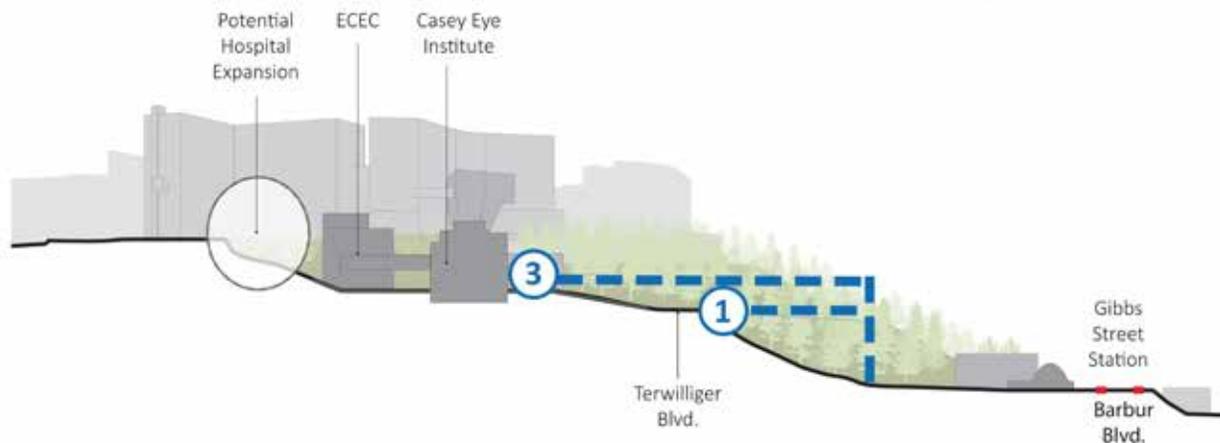
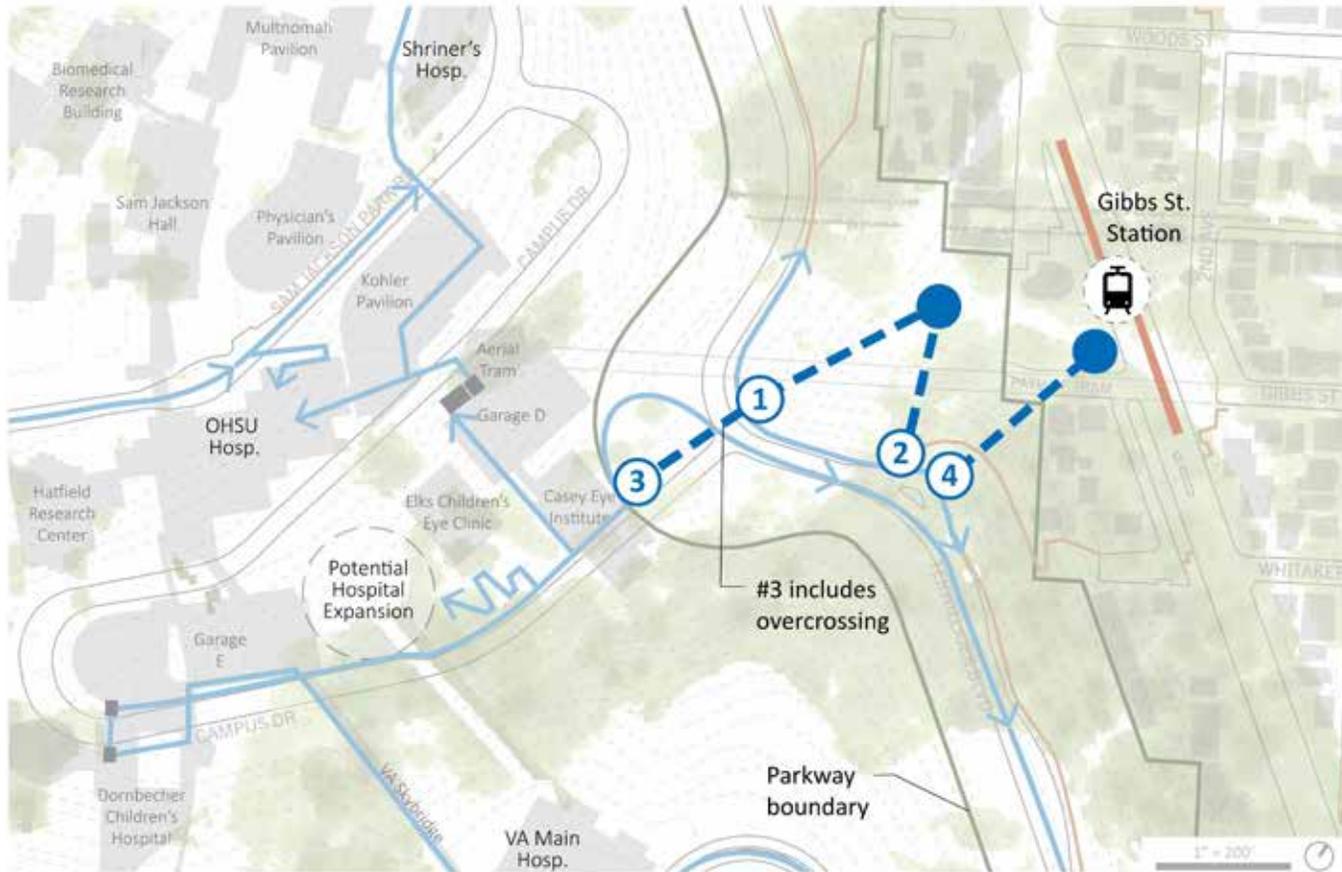
Bridge + Elevators - View east from roadway



Bridge + Elevators to Terwilliger (Upper Level)

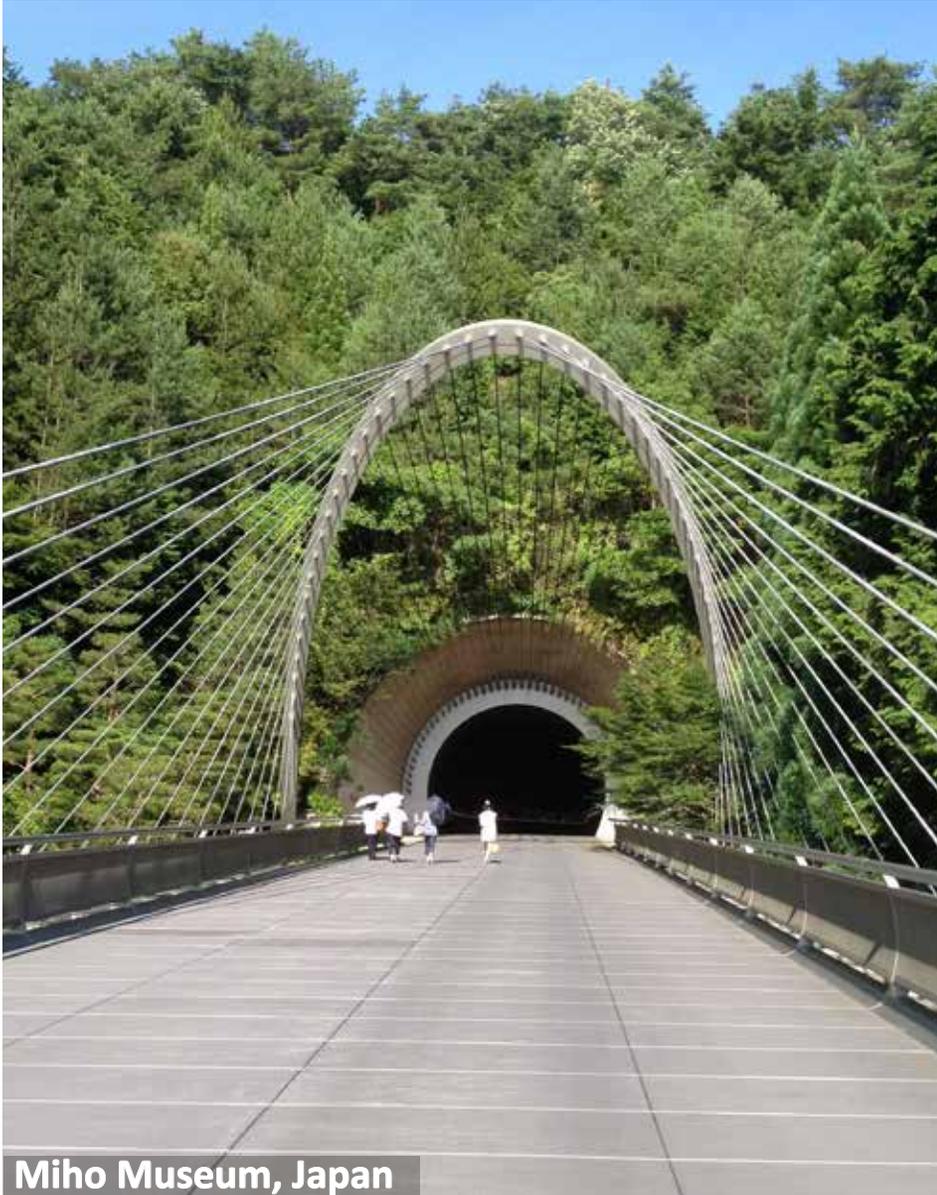


Bridge + Elevators - Potential Alignments



Tunnel + Elevators

Precedents



Miho Museum, Japan

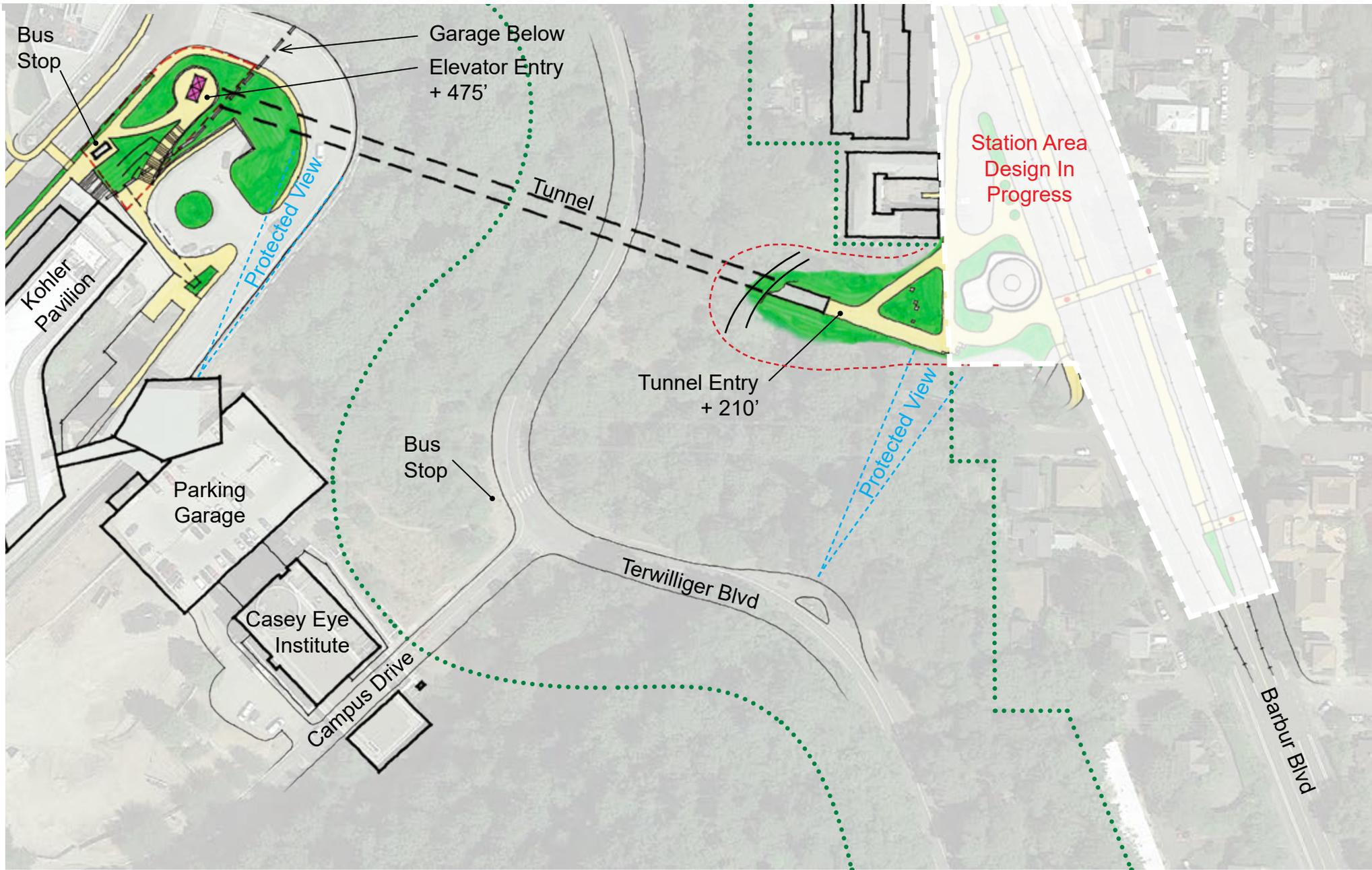


Miho Museum, Japan

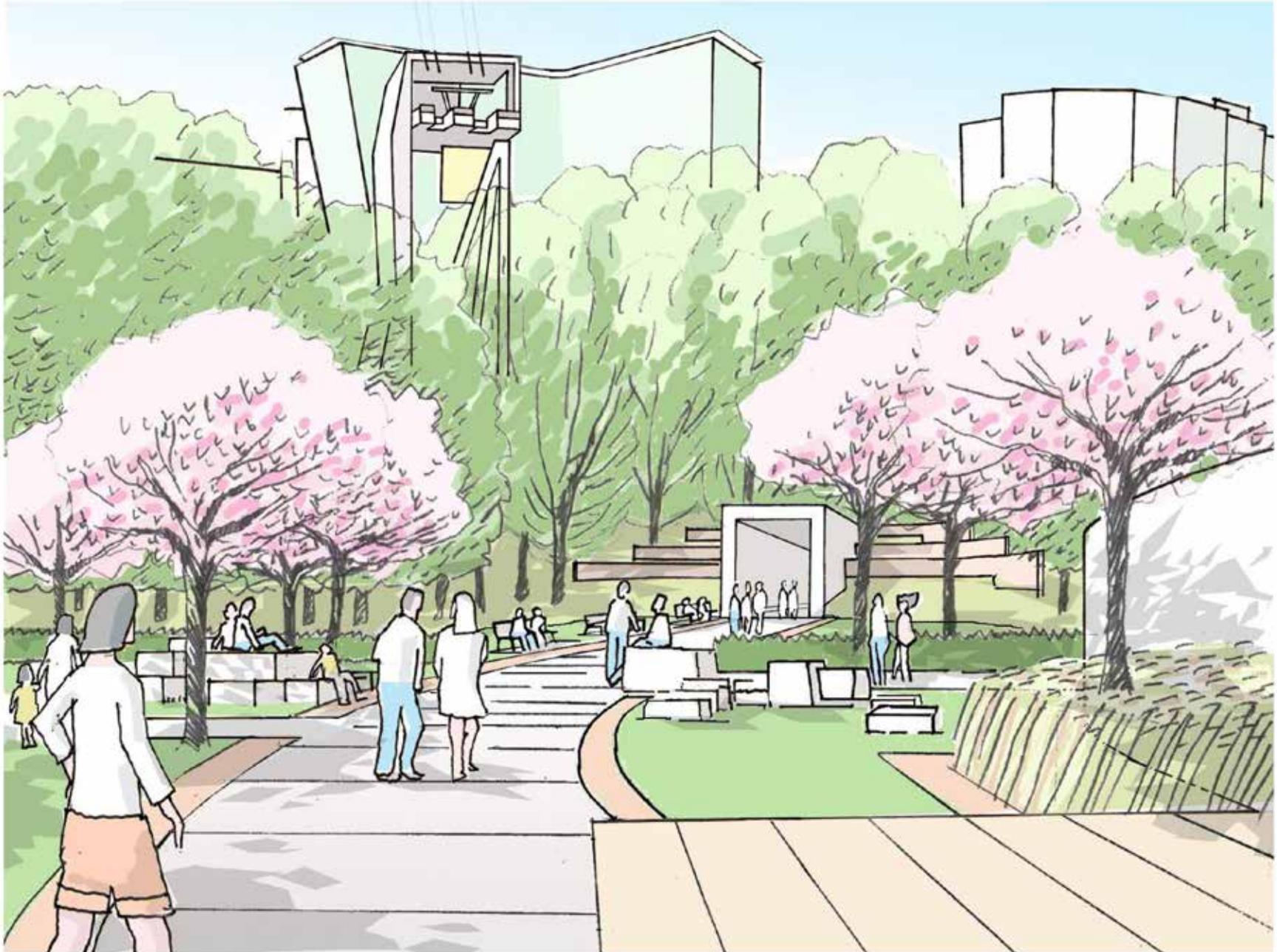


Kings Cross, London

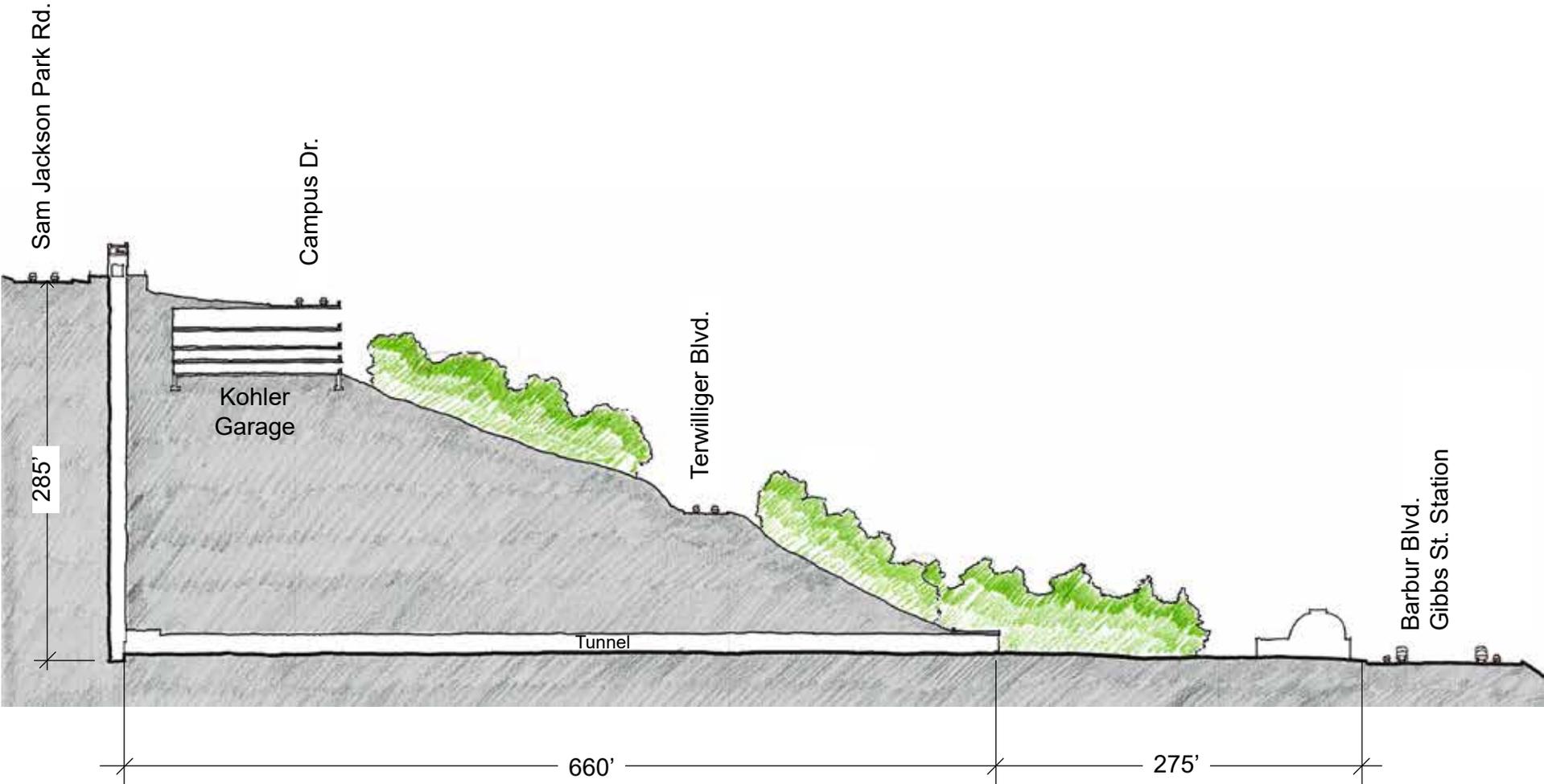
Tunnel + Elevators- Plan



Tunnel + Elevators - View west from base



Tunnel + Elevators - Section



Tunnel + Elevators

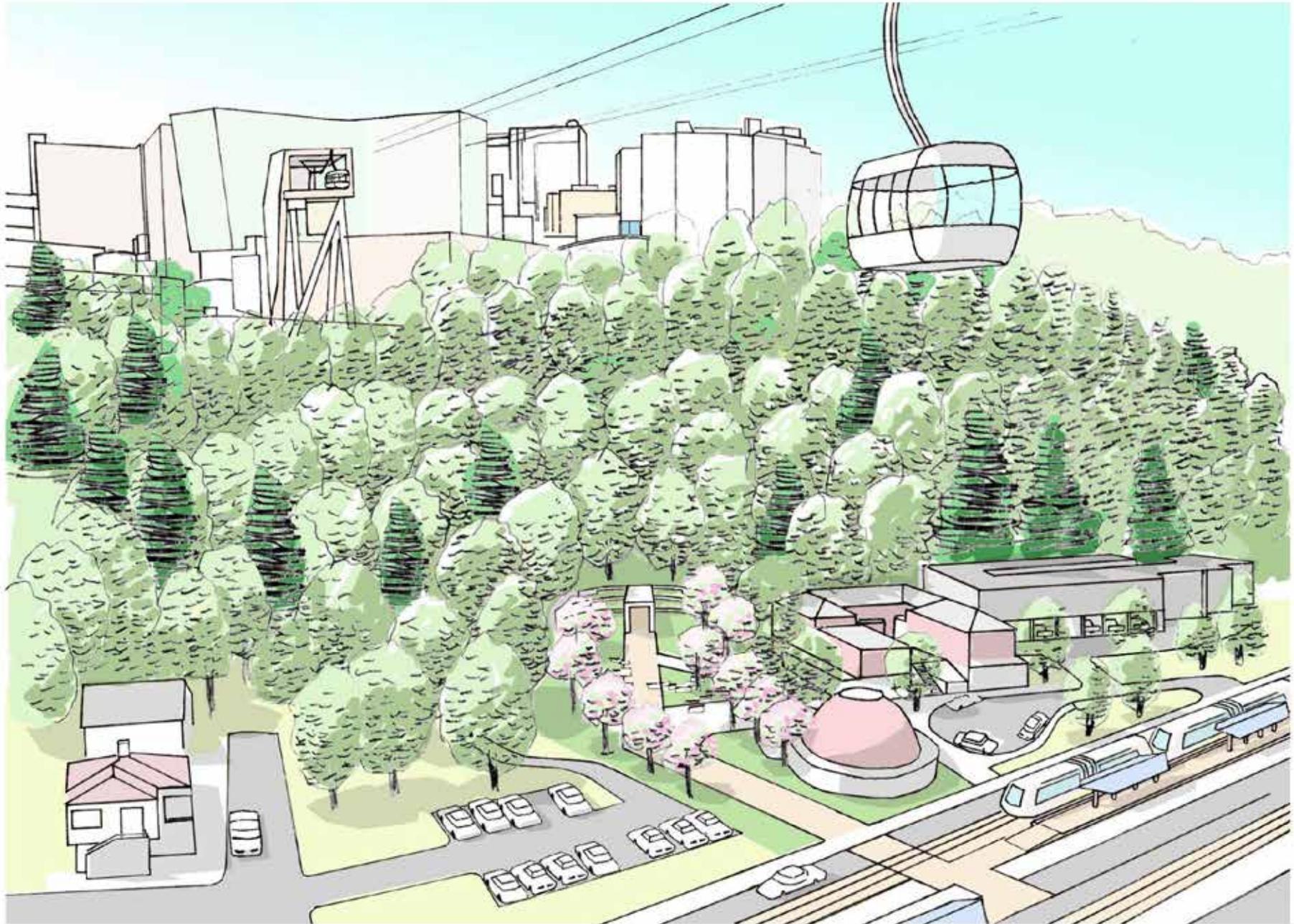


National Gallery, Washington DC

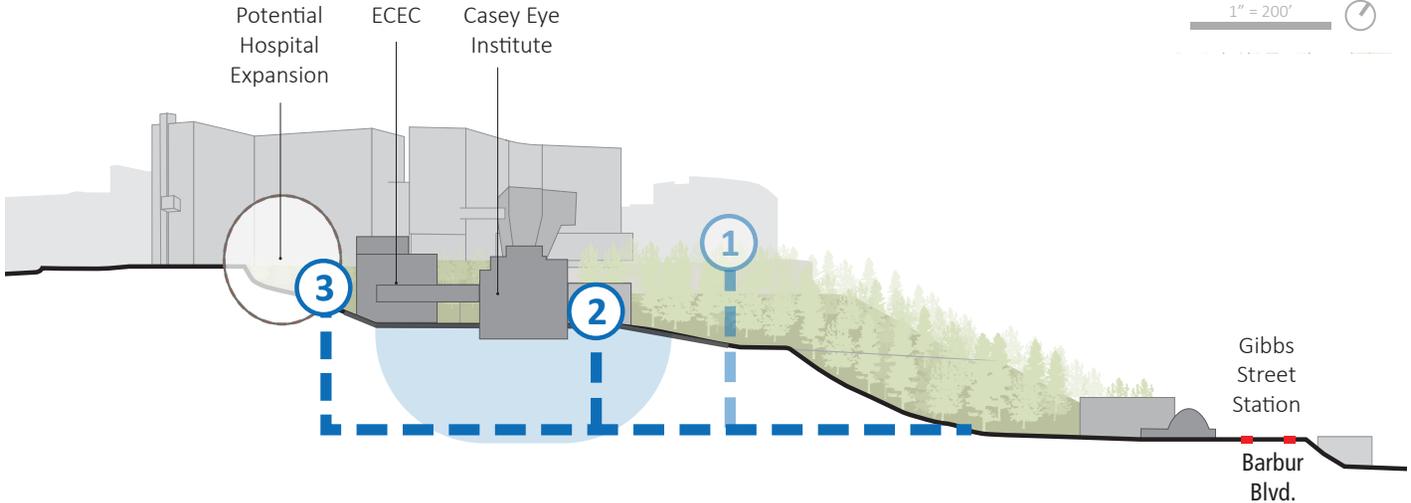
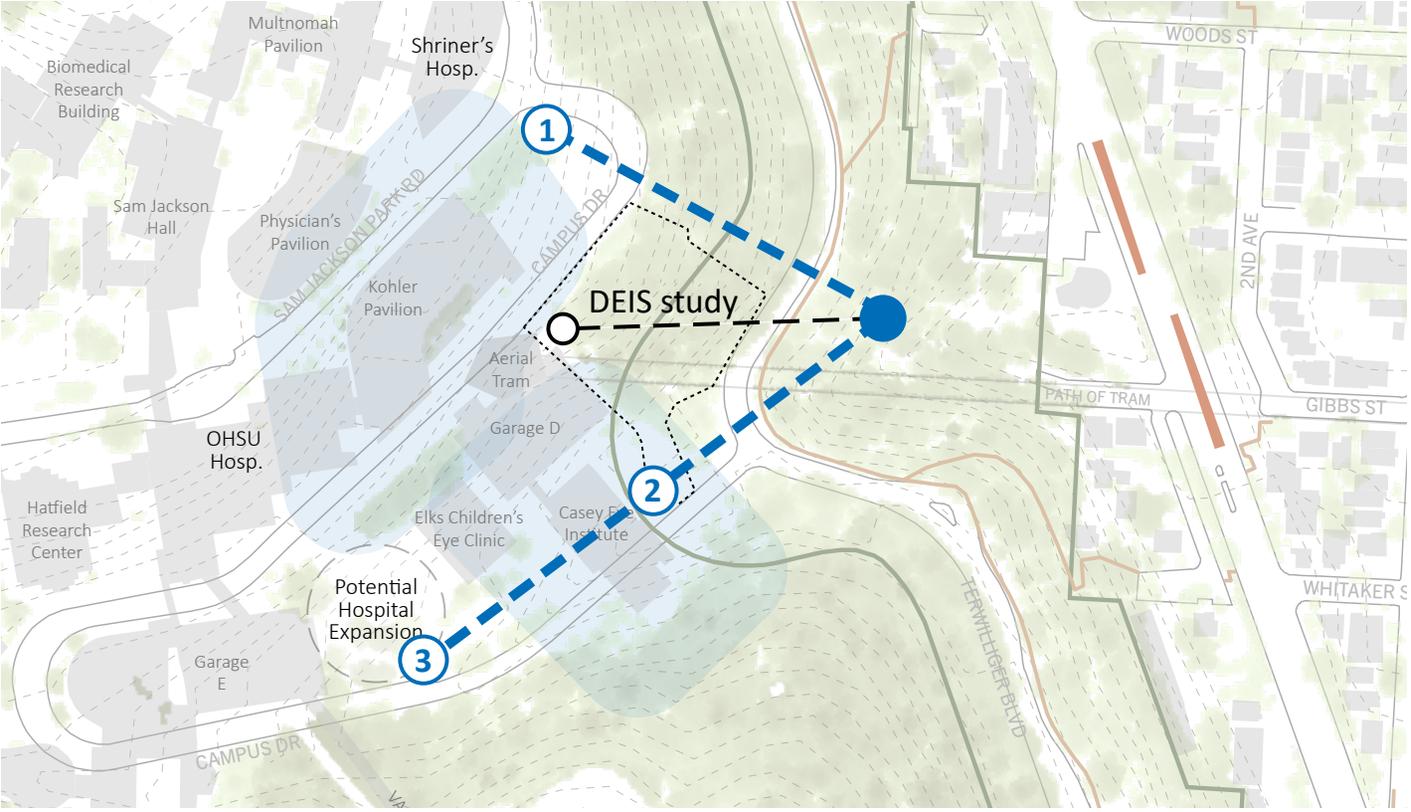


Amsterdam

Tunnel + Elevators - Aerial View



Tunnel + Elevators - Potential Alignments



Aerial Tram Concept

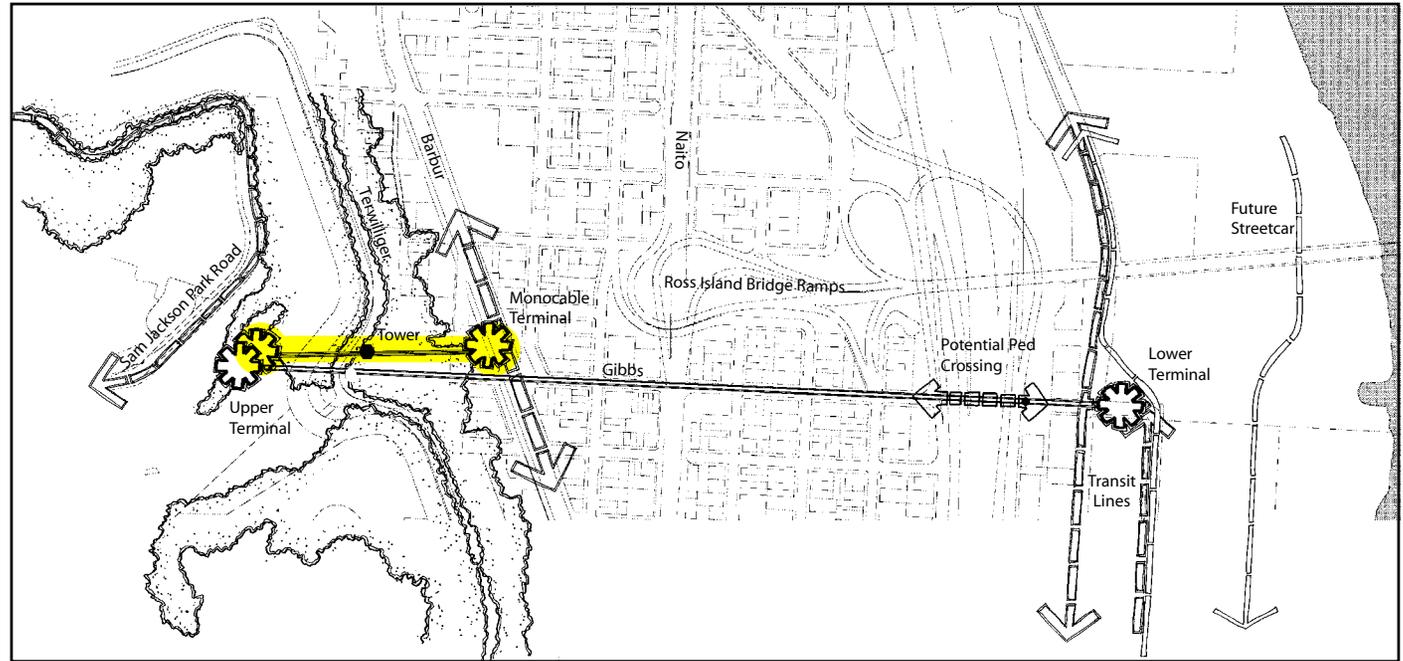


Figure 3.12 Gibbs Street Tram with Monocable Tram at Barbur

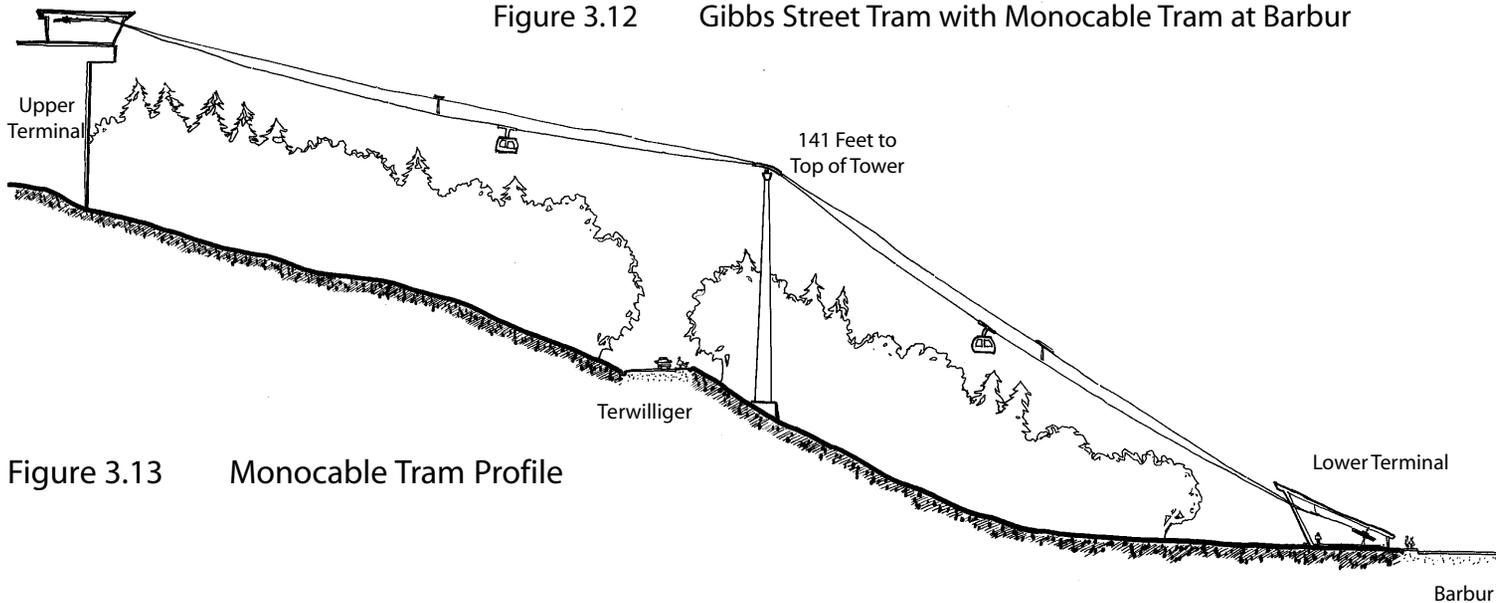


Figure 3.13 Monocable Tram Profile

Aerial Tram Concept

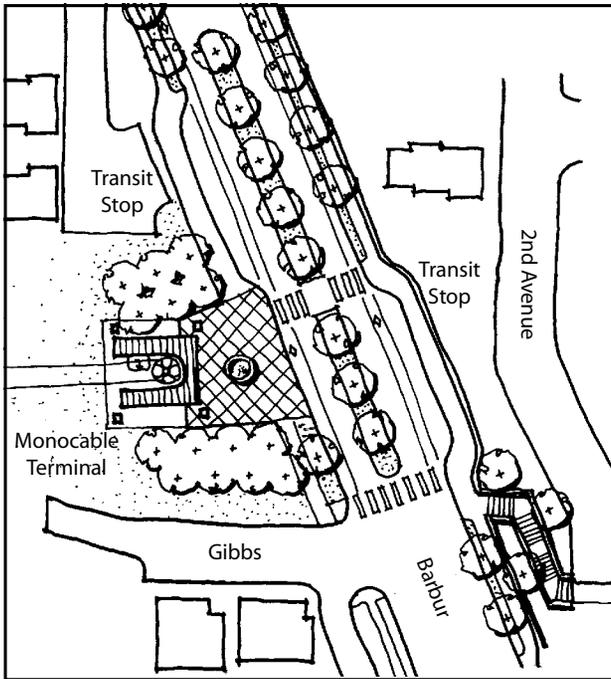
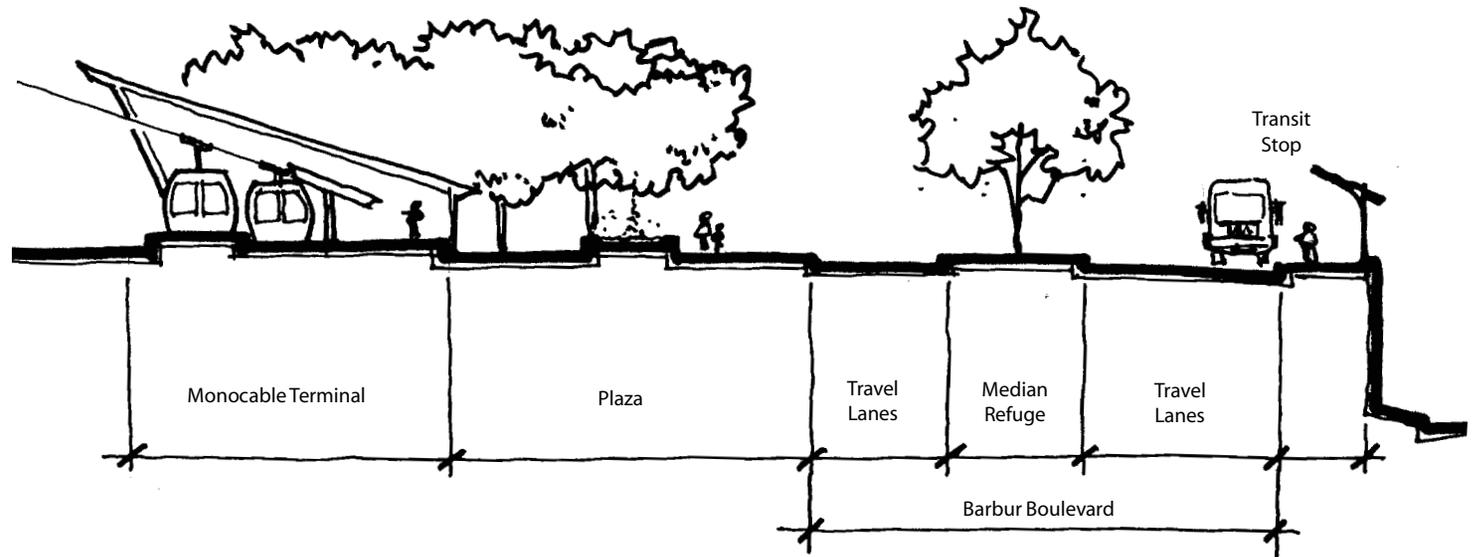
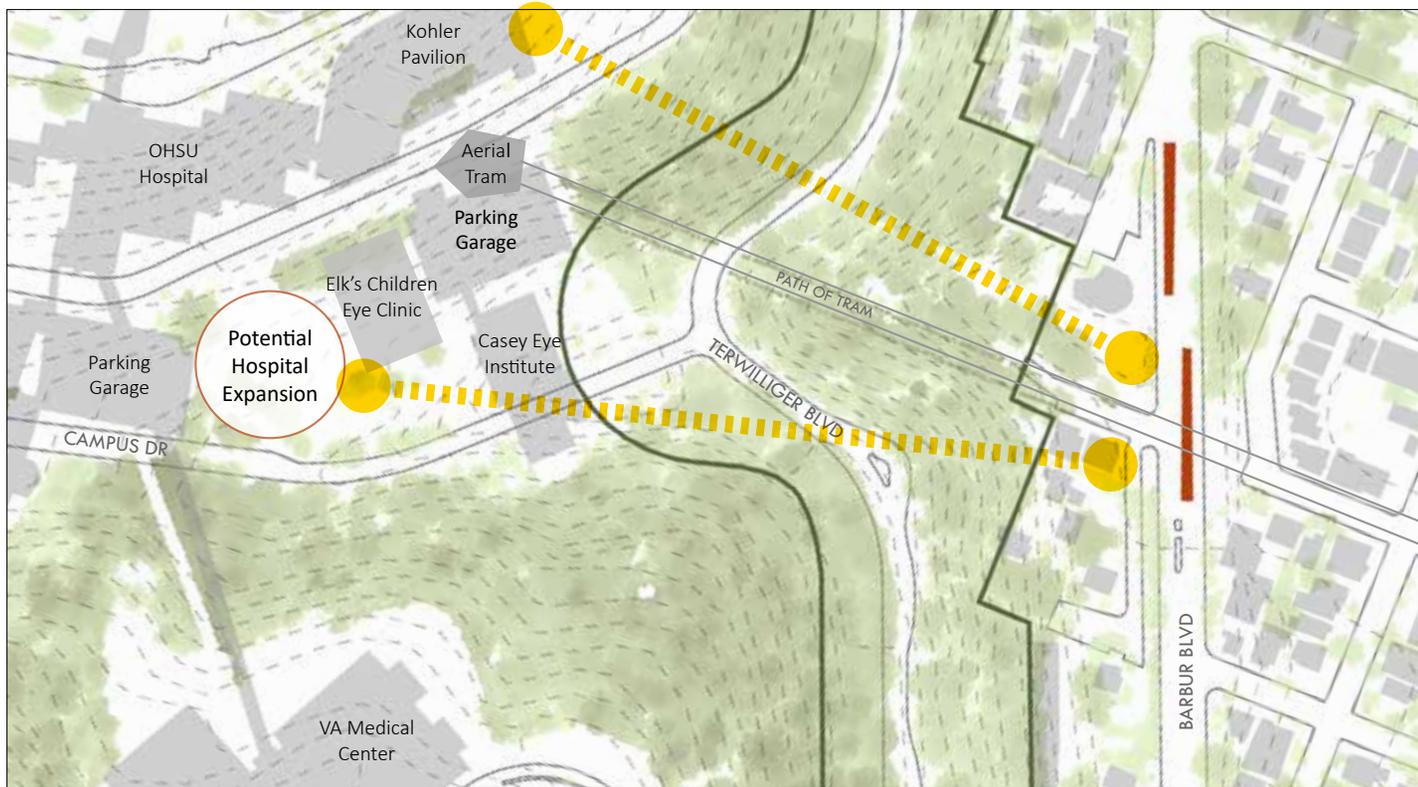


Figure 3.14 Barbur Monocable Station & Crossing Improvements

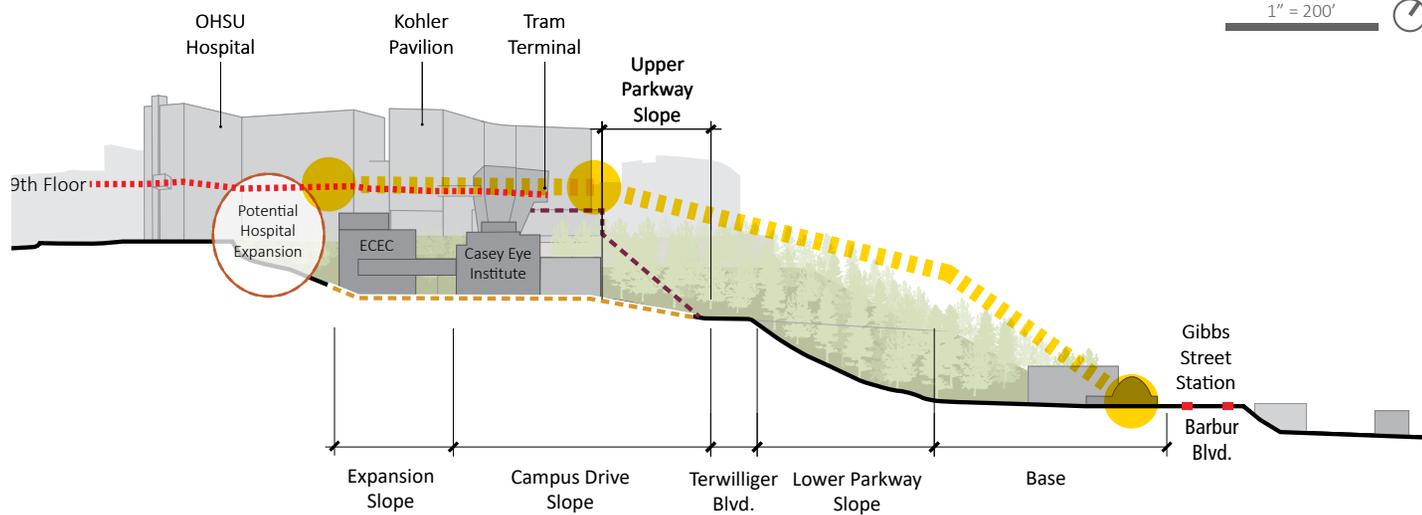


Aerial Tram Concept

Plan



Section



Aerial Tram Cost Analysis

Portland Aerial Tram

(2002) \$10.2mil
↓
(2006) \$57mil

\$28.5mil
\$40mil

Barbur Aerial Tram

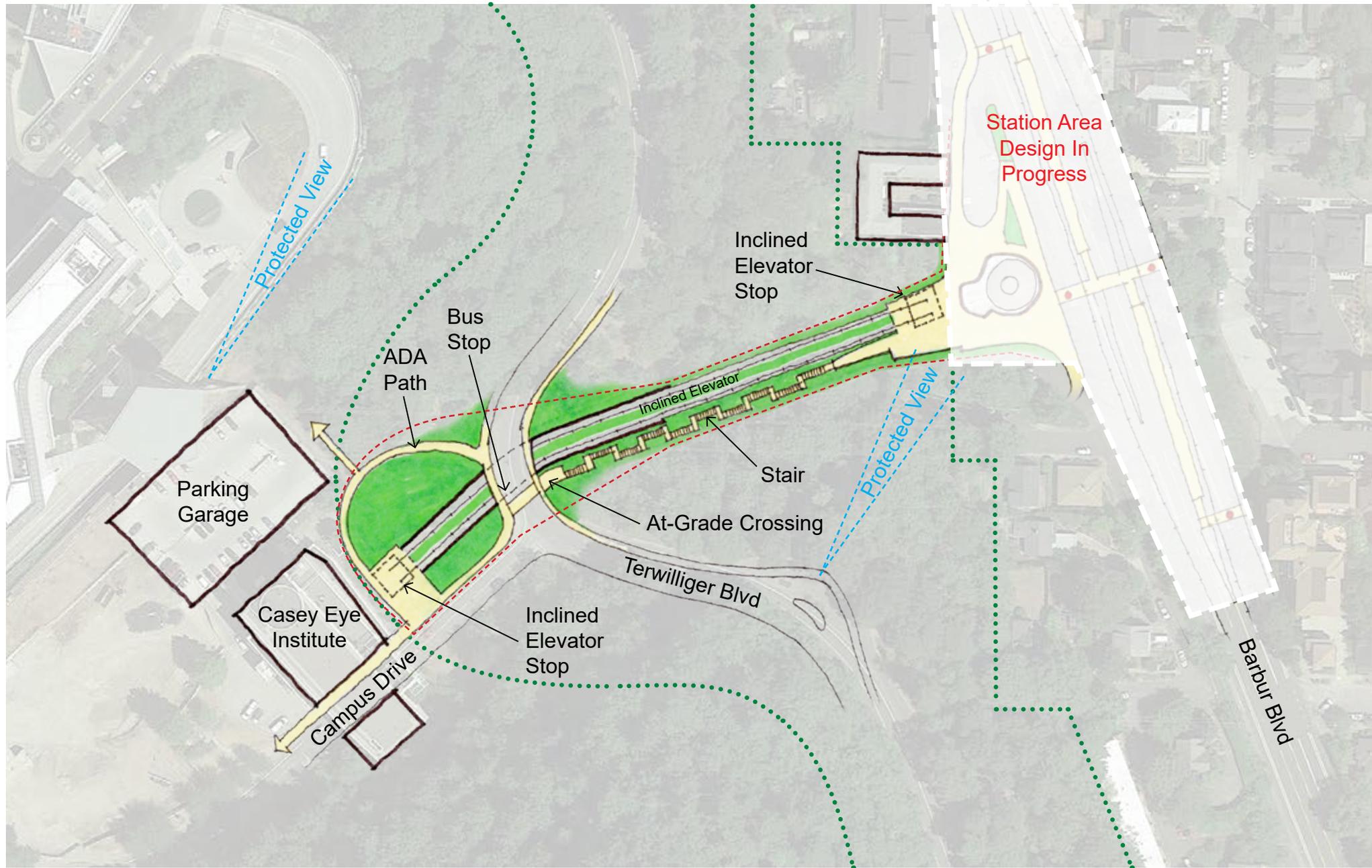
(2002) \$5.6mil (2002)
↓
(2022) \$50-85mil (2022)

Add:

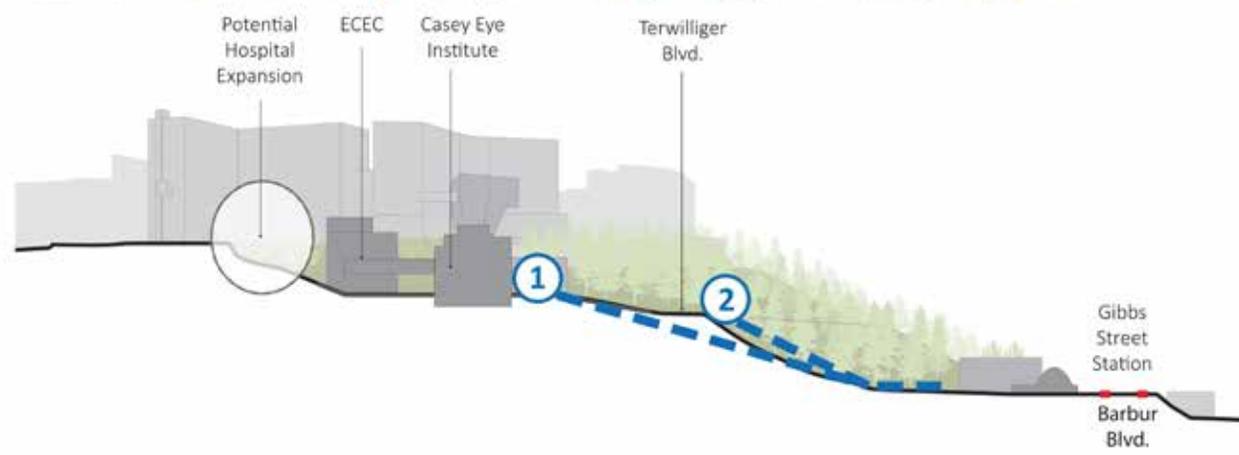
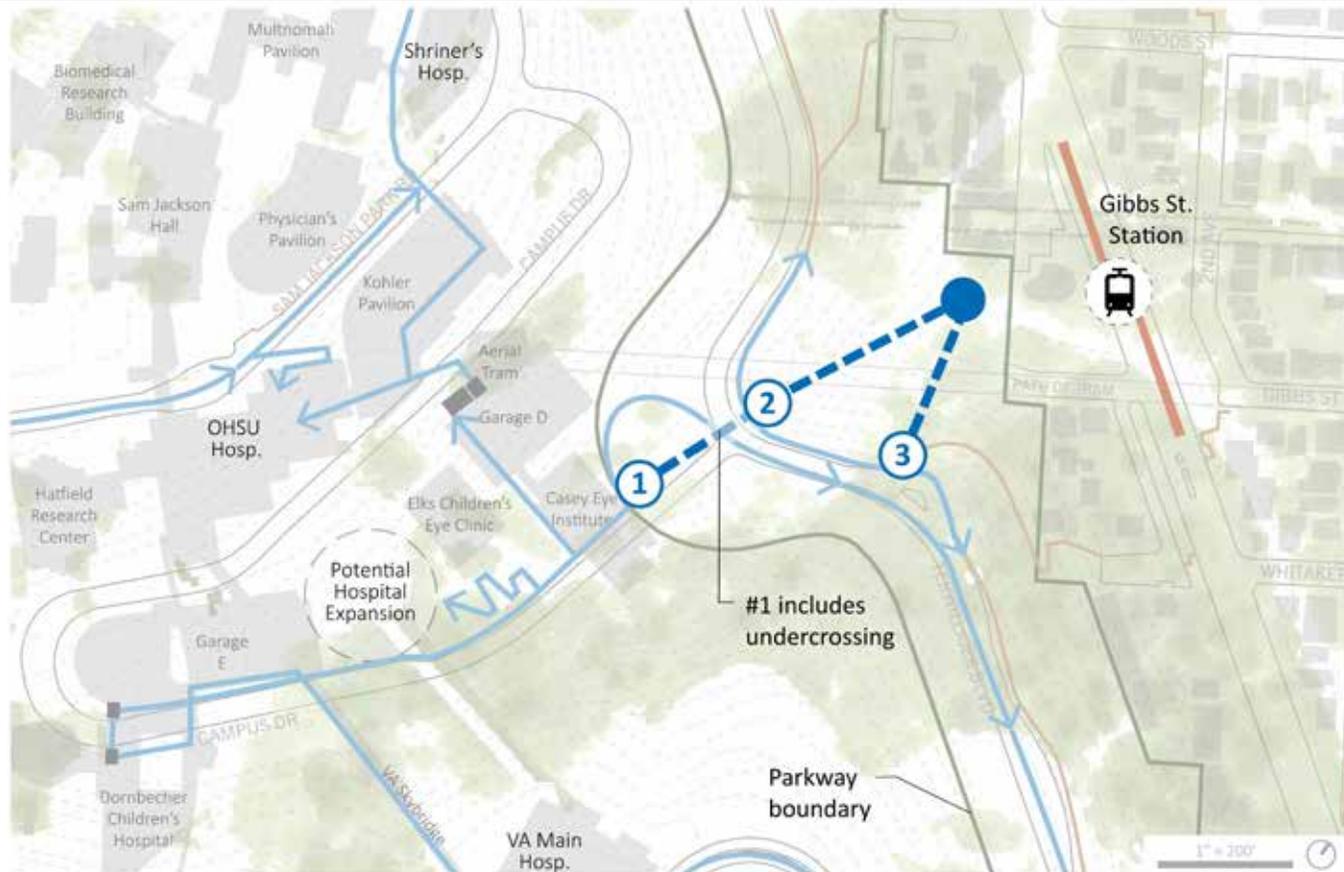
- escalation
- soft costs
- equipment assumptions
- design & construction complexity premium

Discussion

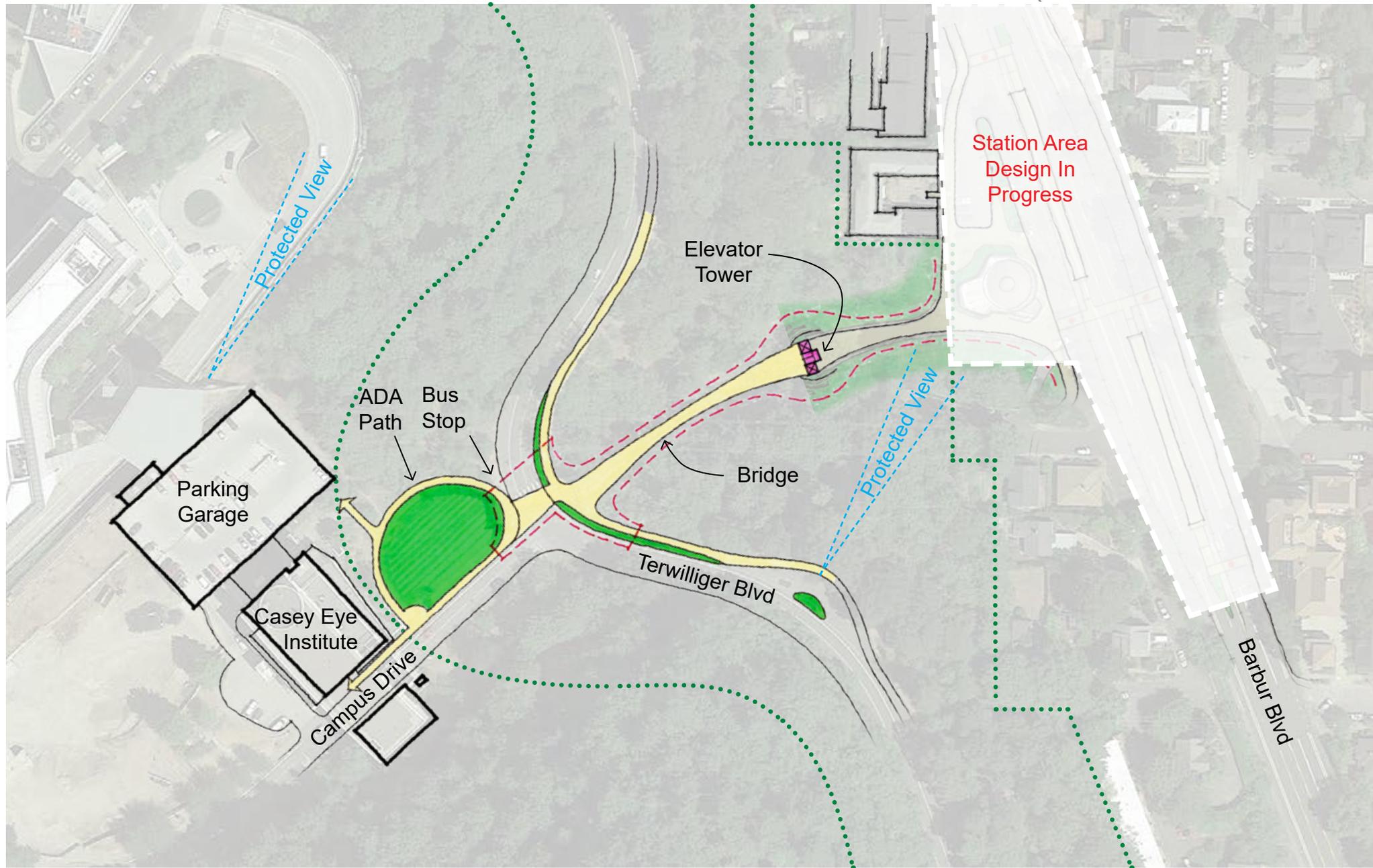
Inclined Elevators - Plan



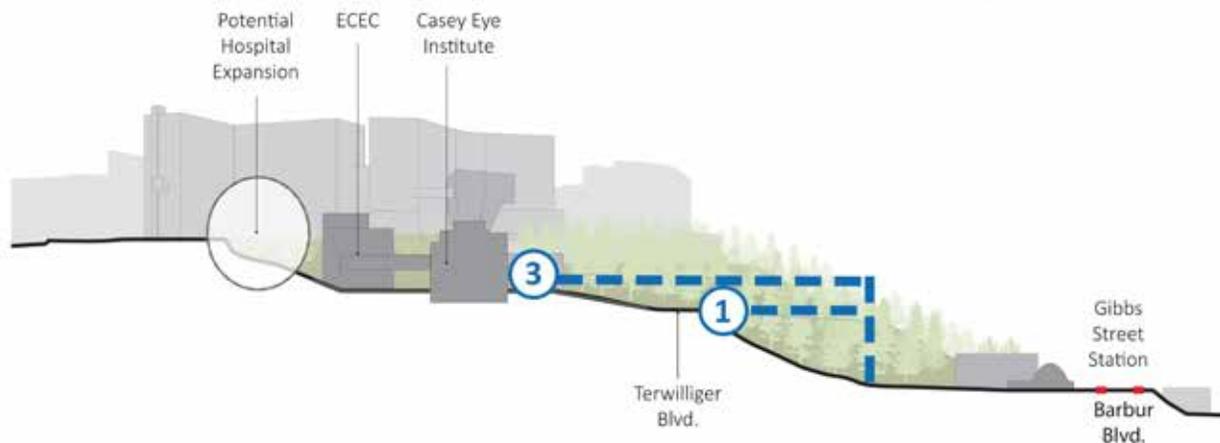
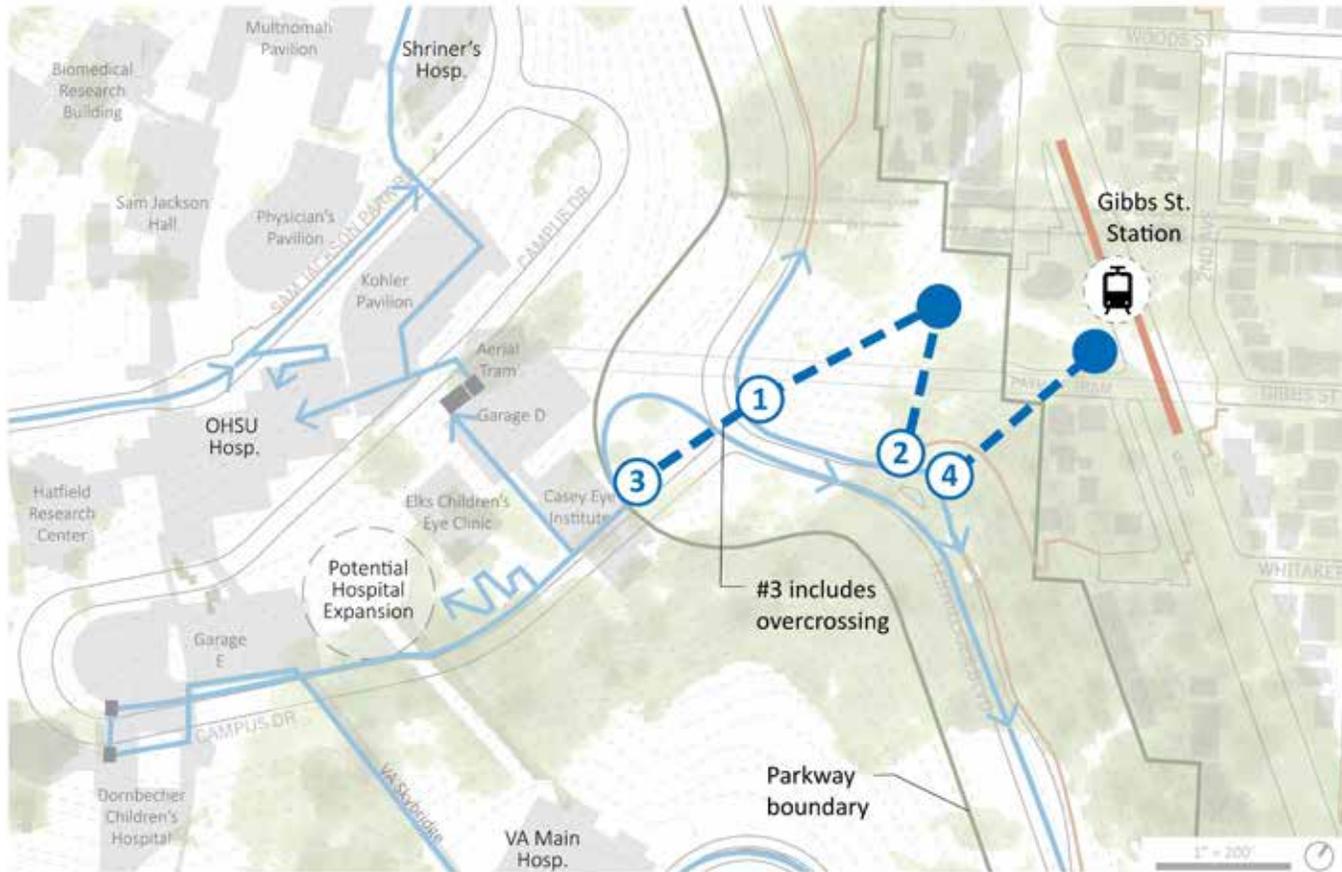
Inclined Elevators- Potential Alignments



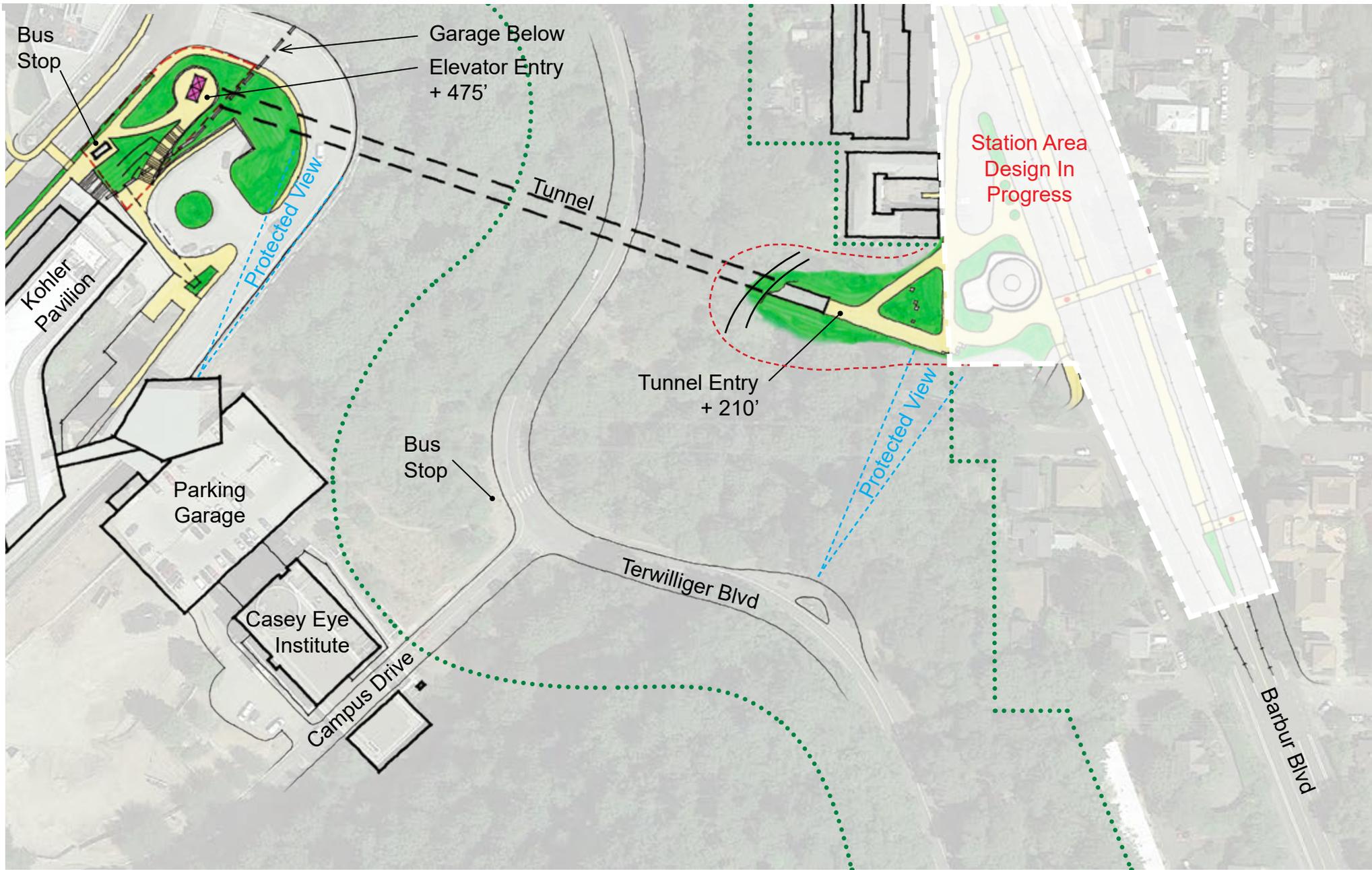
Bridge + Elevators - Plan



Bridge + Elevators - Potential Alignments



Tunnel + Elevators - Plan



Tunnel + Elevators - Potential Alignments

