

Carkeek Park Pedestrian Bridge



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Carkeek Park Pedestrian Bridge: Presentation Outline

- **Team**
- **2020 Feasibility Study**
- **Schedule**
- **Community Engagement**
- **Tribal Engagement**
- **Site Analysis**
- **BNSF Requirements**
- **New Bridge Alignments**
- **Materials**

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Carkeek Park Pedestrian Bridge: Design Team



Stephen Van Dyck
LMN



Scott Crawford
LMN



Jessica Miller
LMN



Evan McQuillen
LMN



Jane Li
RHC Engineering



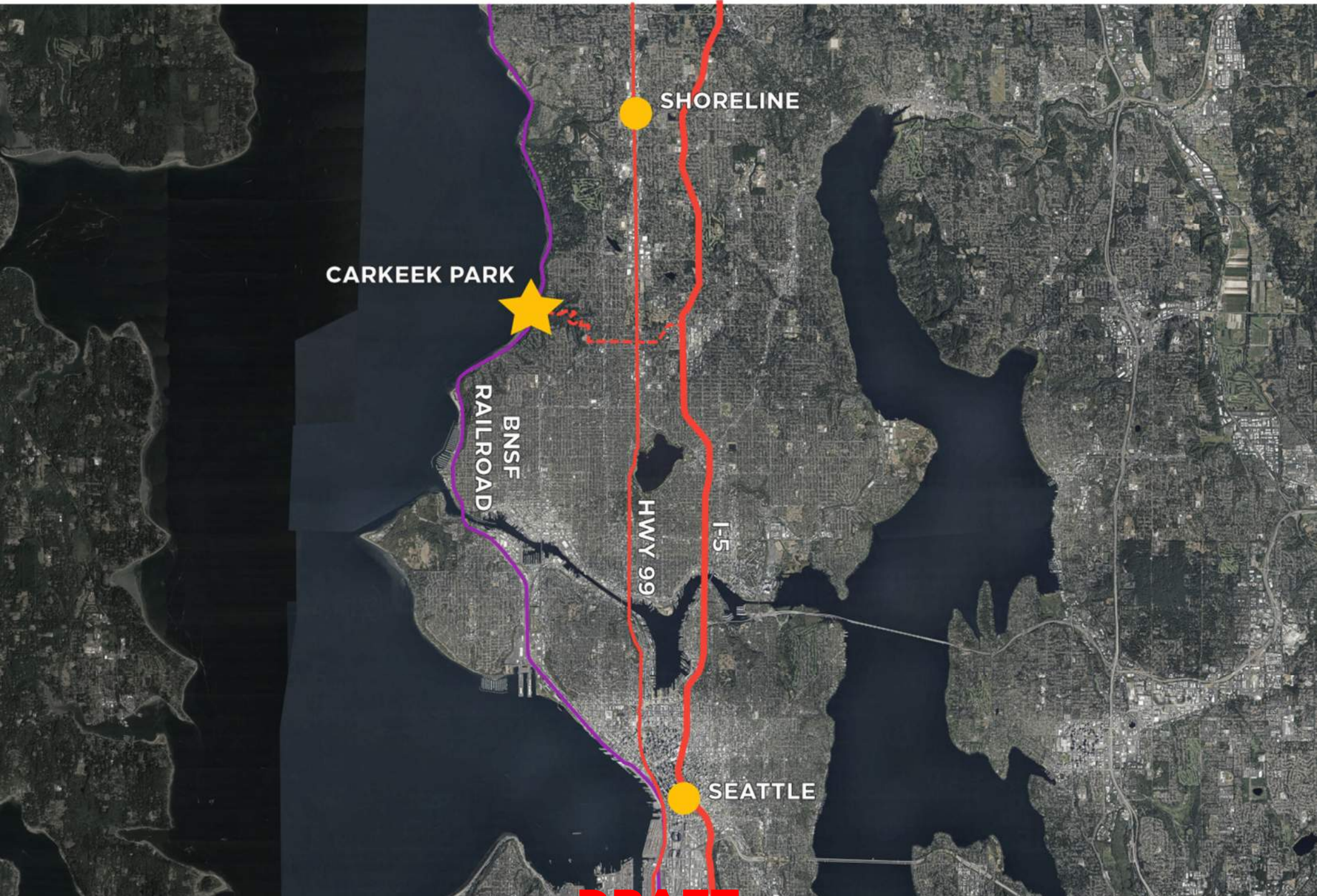
Clayton Binkley
Odd Lot



Karen Keist
**Karen Keist Landscape
Architects**

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Carkeek Park Pedestrian Bridge: Project Context



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Carkeek Park Pedestrian Bridge: 2020 Feasibility Study

Existing bridge assessment



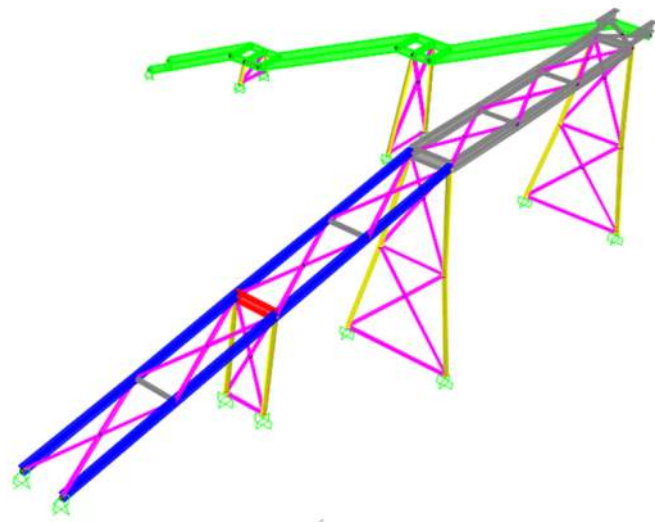
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Carkeek Park Pedestrian Bridge: 2020 Feasibility Study

Existing bridge assessment



Bridge Modeling and Analysis



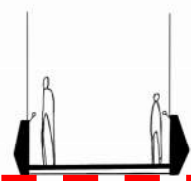
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Carkeek Park Pedestrian Bridge: 2020 Feasibility Study

Span type analysis



GIRDER



PROS

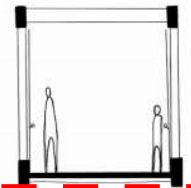
- SLIM APPEARANCE
- COMPACT FORM EASES DELIVERY AND LIFTING INTO PLACE

CONS

- DEPTH TO SPAN RATIO CAN BE INEFFICIENT
- DEPTH ABOVE DECK COULD BLOCK VIEW FOR CHILDREN
- ADDITIONAL SPANS NEEDED FOR APPROACH RAMP



TRUSS

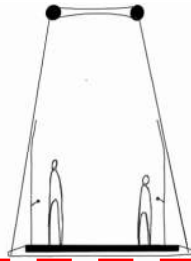


- ECONOMICAL SUPERSTRUCTURE
- POTENTIAL TO INTEGRATE THROW BARRIER INTO VERTICAL PORTIONS OF TRUSS

- VISUALLY MORE HEFT AND BULK
- HEAVIER STRUCTURE TO LIFT INTO PLACE
- ADDITIONAL SPANS NEEDED FOR APPROACH RAMP



ARCH

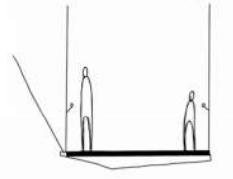


- LIMITED AMOUNT OF STRUCTURE IN VIEW ZONE

- NEED TO AVOID CABLES IMPINGING ON WALKWAY WHICH INCREASES OVERALL WIDTH
- ADDITIONAL SPANS NEEDED FOR APPROACH RAMP



CABLE STAY



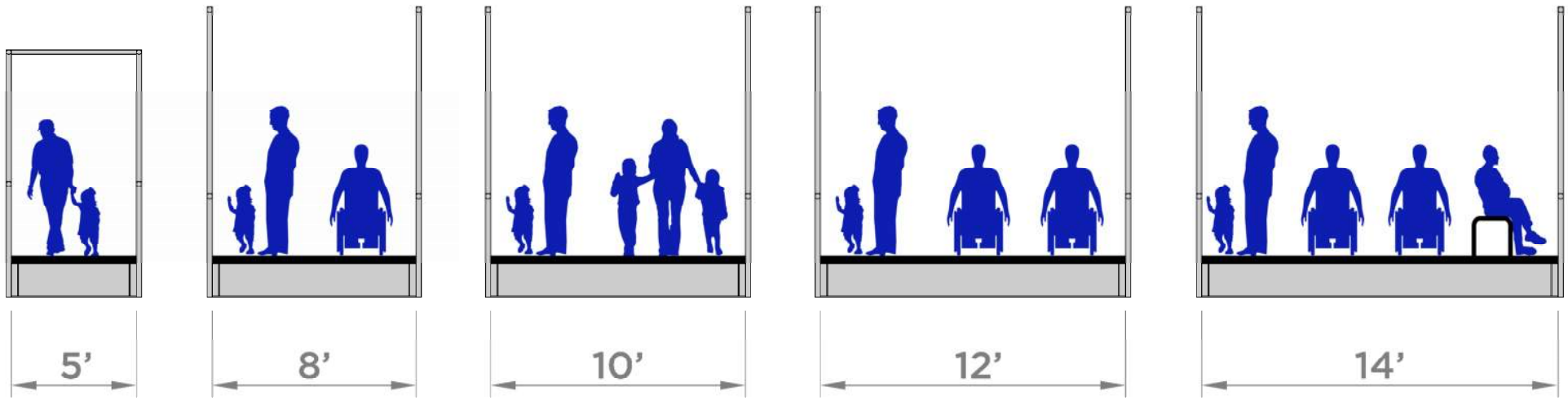
- LIMITS LOAD CARRIED BY BEACH FOUNDATION
- ALLOWS FOR CURVED ALIGNMENT
- LIGHTER STRUCTURE TO LIFT INTO PLACE
- ELIMINATES SEPARATE STRUCTURE

- CAN BE MORE EXPENSIVE
- MORE COMPLEX ENGINEERING

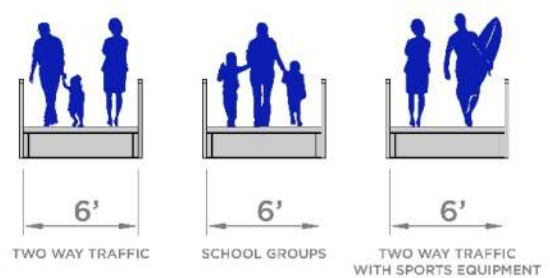
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Carkeek Park Pedestrian Bridge: 2020 Feasibility Study

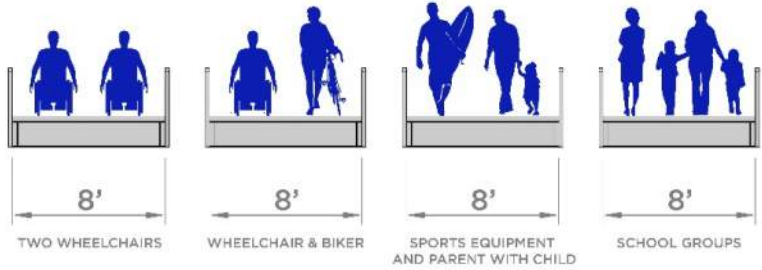
Walkway design



STAIR TO BEACH

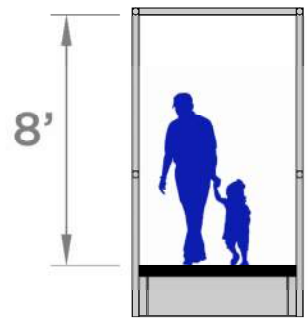


APPROACH RAMP

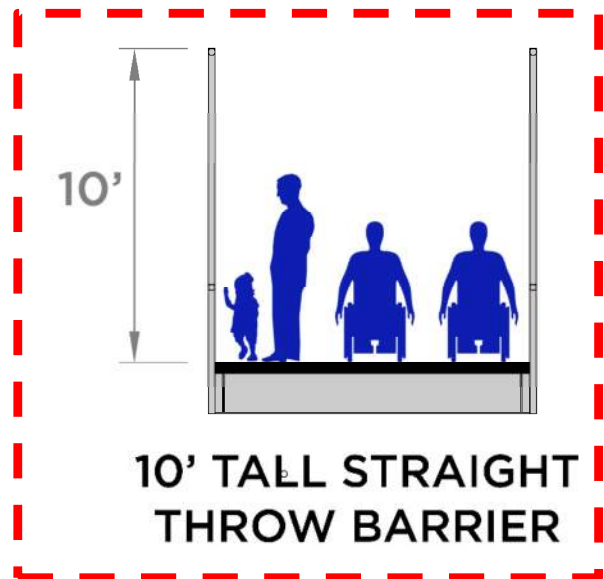


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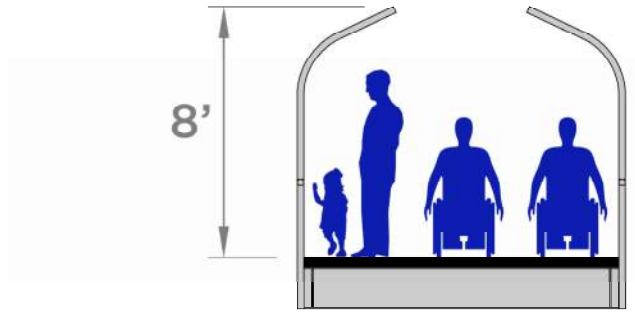
Carkeek Park Pedestrian Bridge: 2020 Feasibility Study



EXISTING
THROW BARRIER



10' TALL STRAIGHT
THROW BARRIER



8' TALL CURVED
THROW BARRIER



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Carkeek Park Pedestrian Bridge: Schedule



BNSF



SPR PROVIEW



PUBLIC ENGAGEMENT



SEATTLE DESIGN COMMISSION



ENVIRONMENTAL REVIEW & PERMITTING



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Carkeek Park Pedestrian Bridge Community Engagement

Community-based reports, surveys, and events
conducted by Hummingbird Community Cooperation



Karimah Edwards
OWNER & PRINCIPAL



**DeShaun (D.B)
Bennett**
DELIVERY EXECUTIVE



**Liza Higbee-
Robinson**
PROJECT MANAGER



**Judah Cooper-
Payne**
CREATIVE CONSULTANT

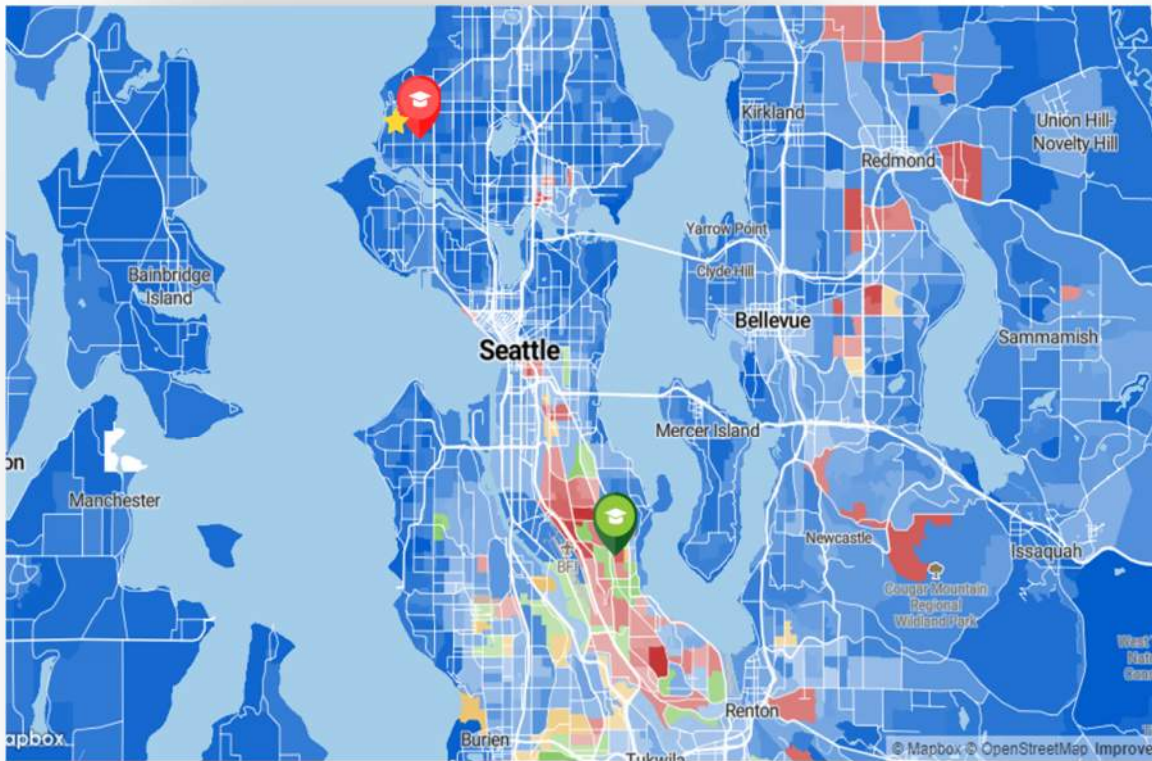
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Carkeek Park Pedestrian Bridge Community Engagement



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Identifying & Documenting Racial Inequities



Majority Race Key



- ★ Carkeek Park
- 📍 Viewlands Elementary School
- 📍 Rising Star Elementary

Racial Disparity Comparison:
Viewlands Elementary School near Carkeek Park vs. Rising Star Elementary

Viewlands Elementary School

- 51% White
- 30% Low-Income
- 15.5% English Language Learners
- 12.4% Students w/ disability

Rising Star Elementary

- 11.5% White
- 64.5% Low-Income
- 45.2% English Language Learners
- 19.4% Students w/ disability

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Examining the Causes

How will we eliminate barriers to access?



Foster

Foster a more inclusive culture by acknowledging historic harm and a commitment to anti-racism and equitable practices



Center

Center BIPOC and historically minoritized communities



Provide

Provide culturally responsive communications to support transparency and engagement



Support

Support a shared understanding that this is a process and we are continuously learning and unlearning

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What Matters Most?

- Acknowledge the history of Indigenous displacement within ancestral territories and of racial restrictions in Seattle and how both continue to impact who accesses places like Carkeek Park and the surrounding neighborhoods.

- **Include diverse communities holistically and as part of a greater conversation on decolonization, community placemaking, and belonging.**

- Capture how people want to feel and what they want to experience while using the pedestrian bridge.
- Incorporate Indigenous knowledge and culturally relevant design elements.

Clarifying the Purpose

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Considering Adverse Impacts

What are some unintended consequences of this process and project completion?

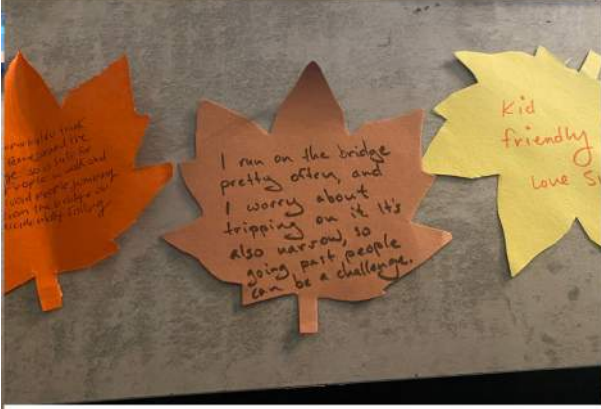
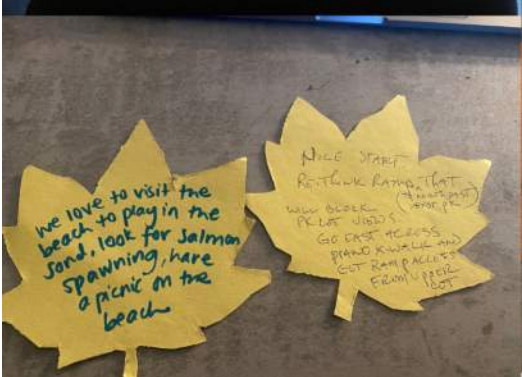
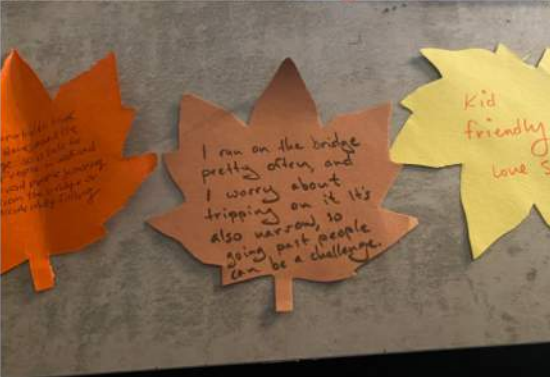
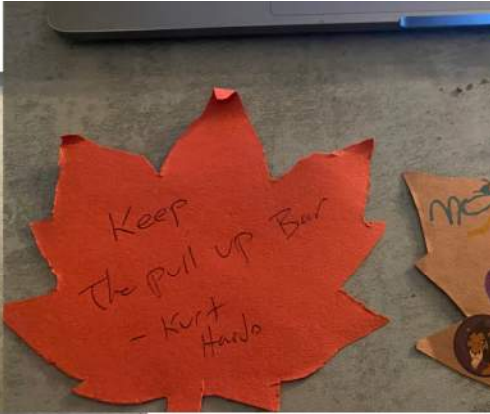
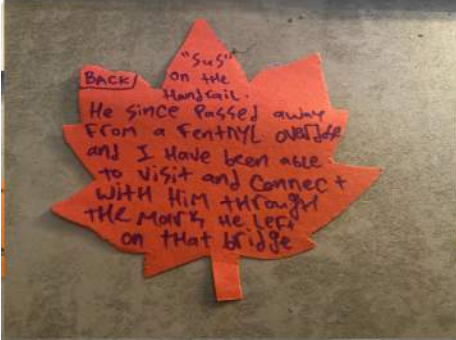
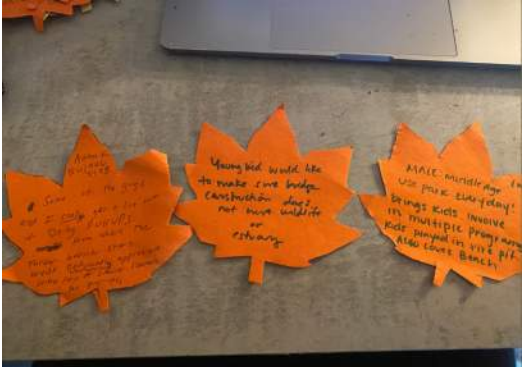
Tokenism is cultural reflection not done in a way that is meaningful.

Representation sends a message about who belongs and must be done in a way that is inclusive and respectful.

Construction can impact and disrupt park visitors, park programming and surrounding neighborhoods.

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Carkeek Park Pedestrian Bridge Community Engagement



On-site community engagement event – September 23, 2023

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Carkeek Park Pedestrian Bridge: Community Engagement

450 Total Survey Responses



18 and over



Drive to Park
Access beach to enjoy nature and time outdoors

49%



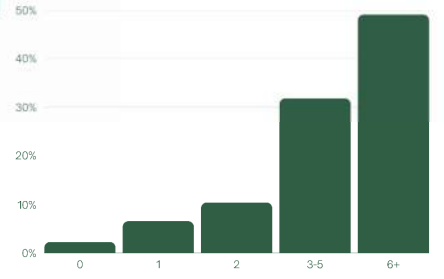
Visited the park 6 or more times in the last 12 months

Have you ever visited the bridge at Carkeek Park?



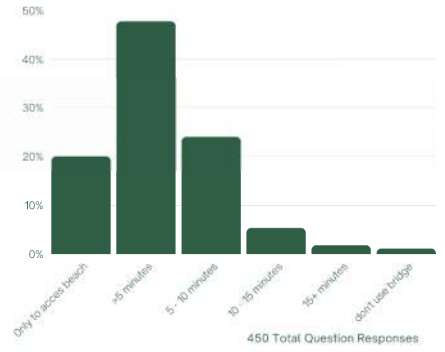
450 Total Question Responses

How many times have you visited the bridge at Carkeek Park in the past 12 months?



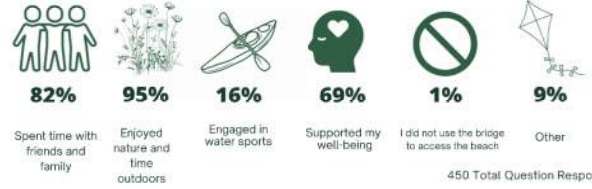
450 Total Question Responses

How much time do you typically spend on the bridge?



450 Total Question Responses

Do you use the Carkeek Park Bridge to access the beach? If so, select all activities you have done at the beach:



450 Total Question Responses

Personal Stories

Access Issues

Participants expressed their experience with a bridge that is in accessible to various groups of people i.e. people with strollers, those with disabilities, etc



The View

Participants referred to the stunning, iconic PNW view that can be appreciated from the bridge. People describe wishing the bridge were wider so more people could stand and enjoy the view.



Love for the Park

Many people visit Carkeek regularly (some several times a week) for the view, they bring their guests to see the view, they describe it as one of their favorite places in Seattle

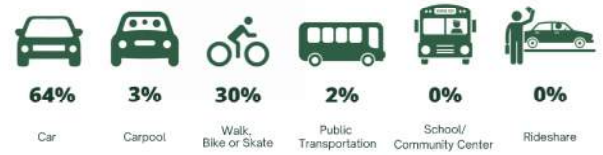


Which age group do you belong to?



436 Total Question Responses

If you have visited the Railroad Foot Bridge at Carkeek Park, how did you get there on your most recent visit?



434 Total Question Responses

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Carkeek Park Pedestrian Bridge: Tribal Engagement (Headwater People)

Tribal outreach and research conducted by Headwater People



HEADWATER PEOPLE



Owen Oliver
Headwater People

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Carkeek Park Pedestrian Bridge: Tribal Engagement (Headwater People)

- Understanding of place that informs engagement and stories.
- k^waatəb has been translated as
 - “Dropped Down”
 - “Leave it alone”
 - “Where People are Sent”
- Own hypothesis and conversation with Puyallup elders lets us know that k^waatəb could reference the place **where people are sent** to gather freshwater and to **leave** (Piper’s Creek) **alone** to insure freshwater.
- Reaffirms that k^waatəb is not a grave or forbidden place.

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Understanding freshwater basket creating and designing.

How could the Carkeek Bridge bring Salish basket science forward that are centered on the direct stories of the land?

Hearing from Indigenous community members that big visual change is what they want to see.

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Carkeek Park Pedestrian Bridge: Tribal Engagement (Headwater People)

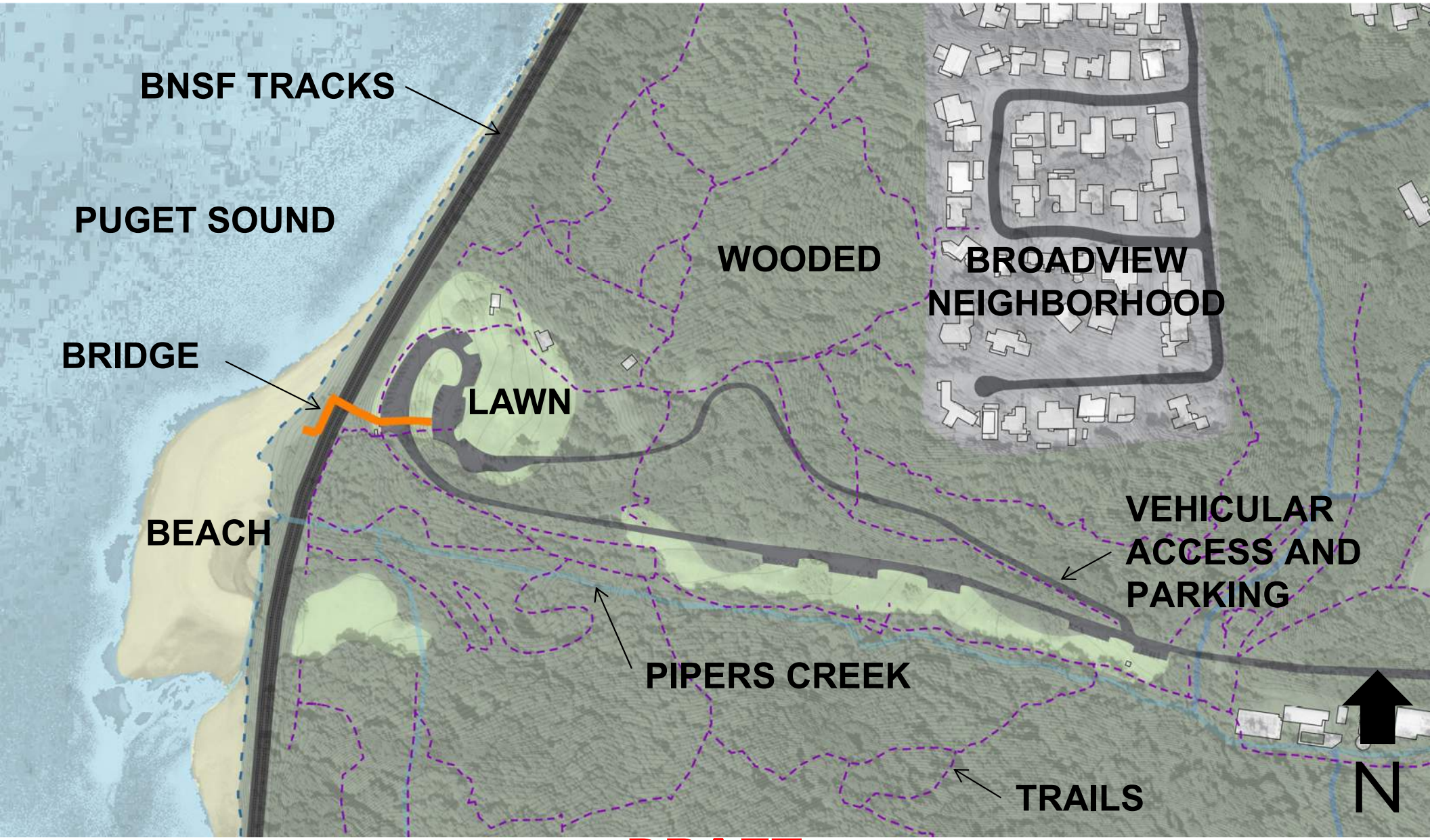
- Story of clean water.
 - Carkeek Bridge provides a transition point.
 - ǰ^wəlč (saltwater in Lushootseed. Onomatopoeia for the lapping waves along the beach)
 - Continuing to connect with Suquamish Tribe who rear the salmon at Piper's Creek Hatchery



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Carkeek Park Pedestrian Bridge: Site Analysis

Park & Neighborhood

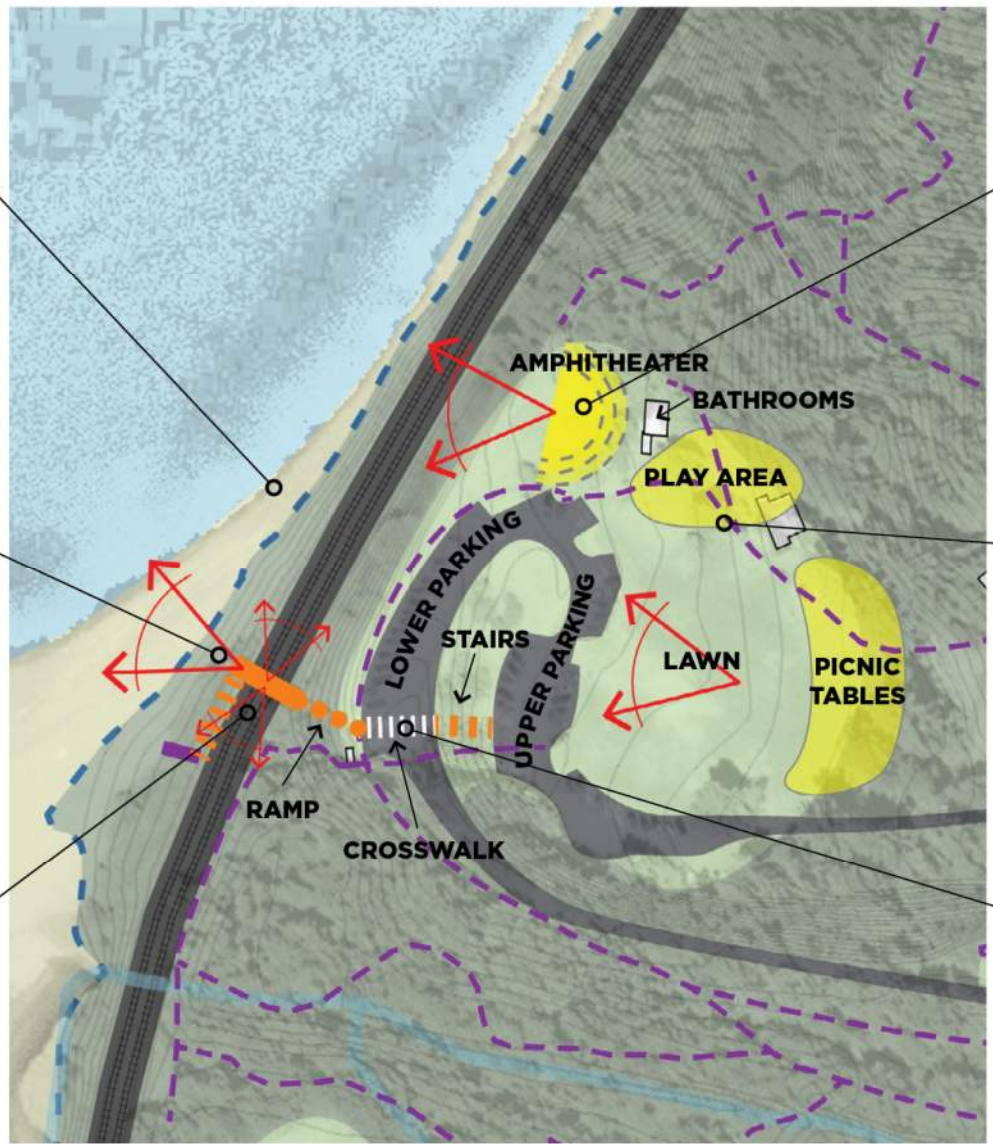


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Carkeek Park Pedestrian Bridge: Site Analysis

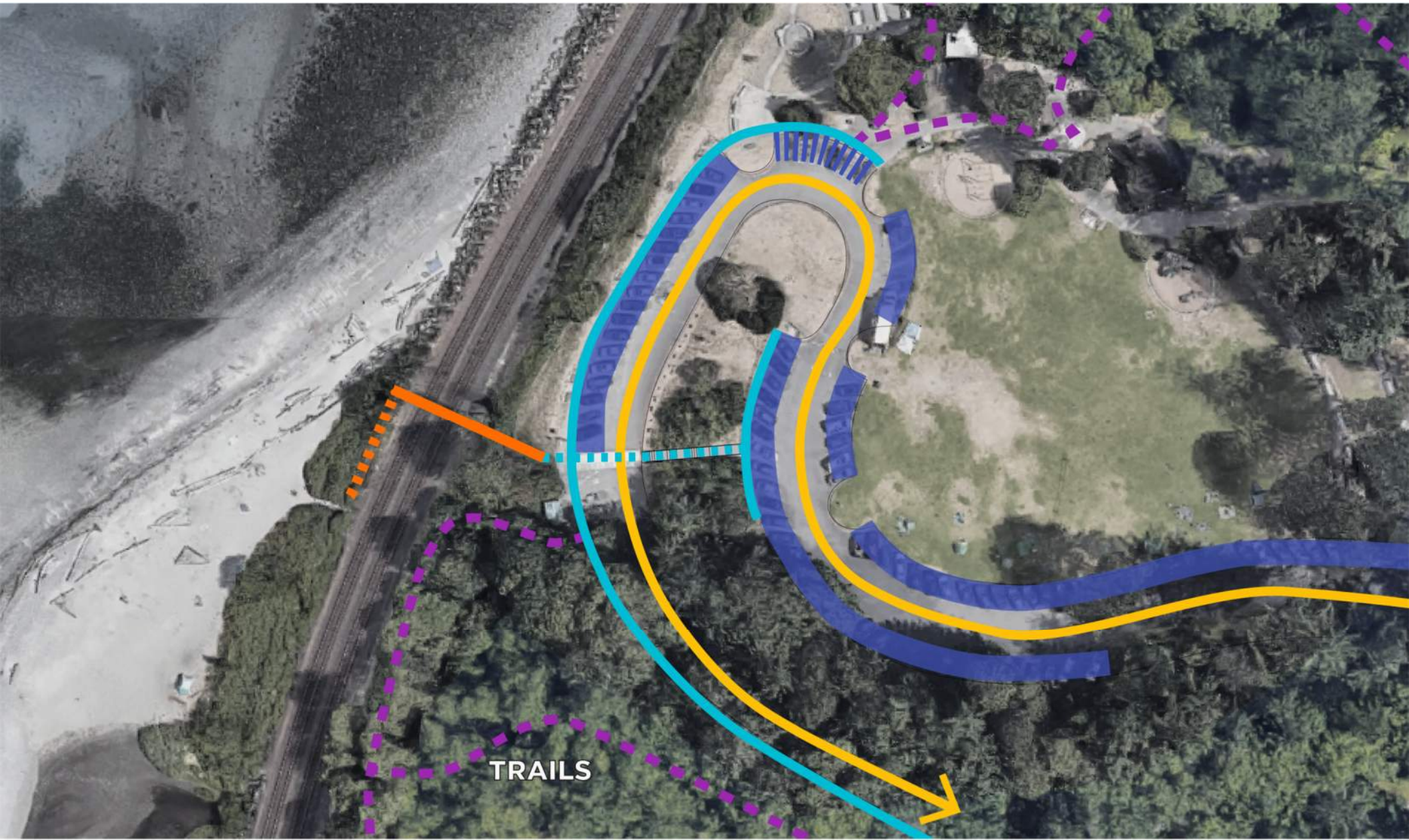
Park Features



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Carkeek Park Pedestrian Bridge: Site Analysis

Site Circulation



CAR TRAFFIC

PARKING

DISABLED PARKING

SIDEWALK DRAFT

EXISTING BRIDGE

Carkeek Park Pedestrian Bridge: Site Analysis



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Carkeek Park Pedestrian Bridge: Site Analysis



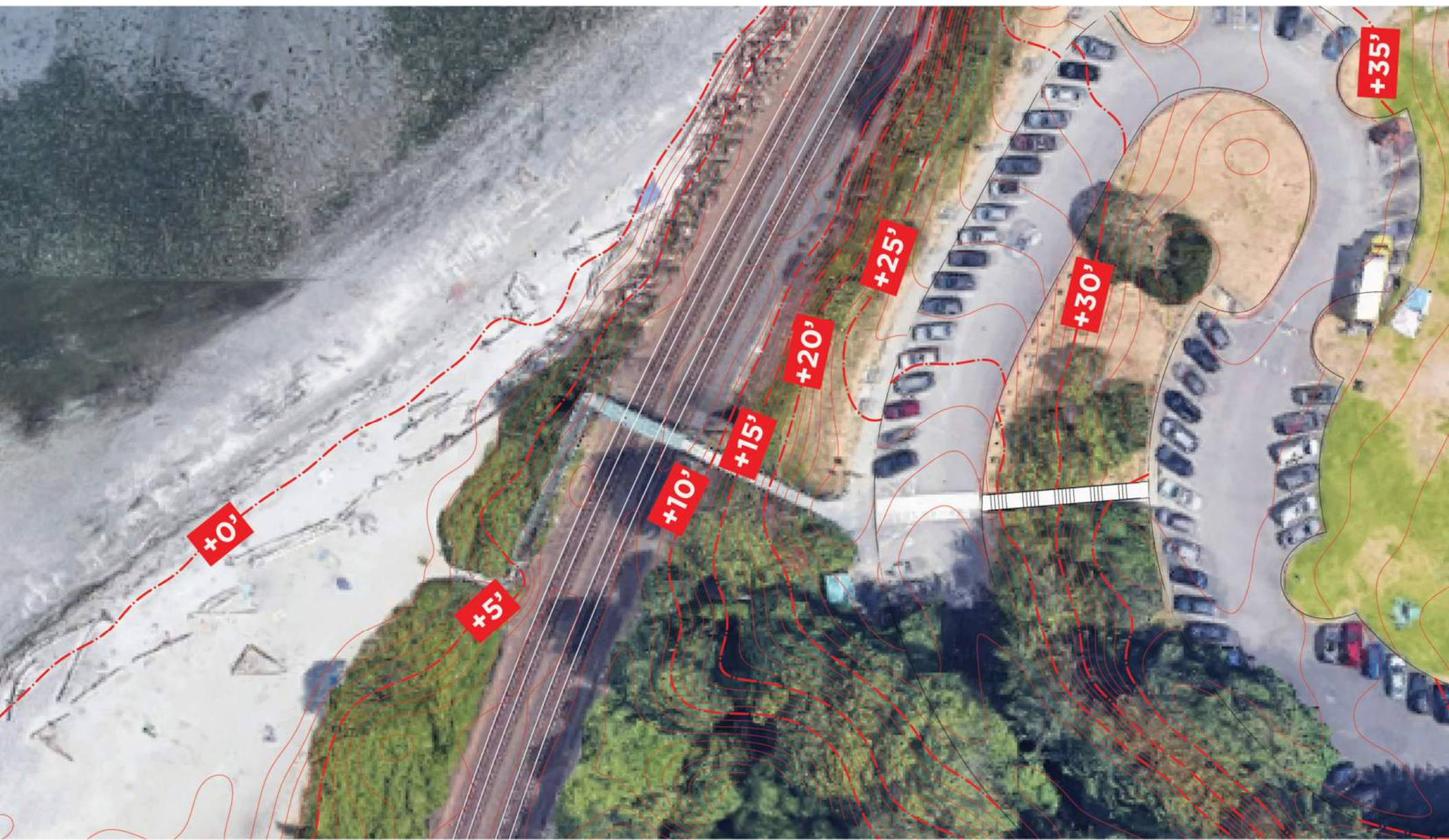
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Carkeek Park Pedestrian Bridge: Site Analysis



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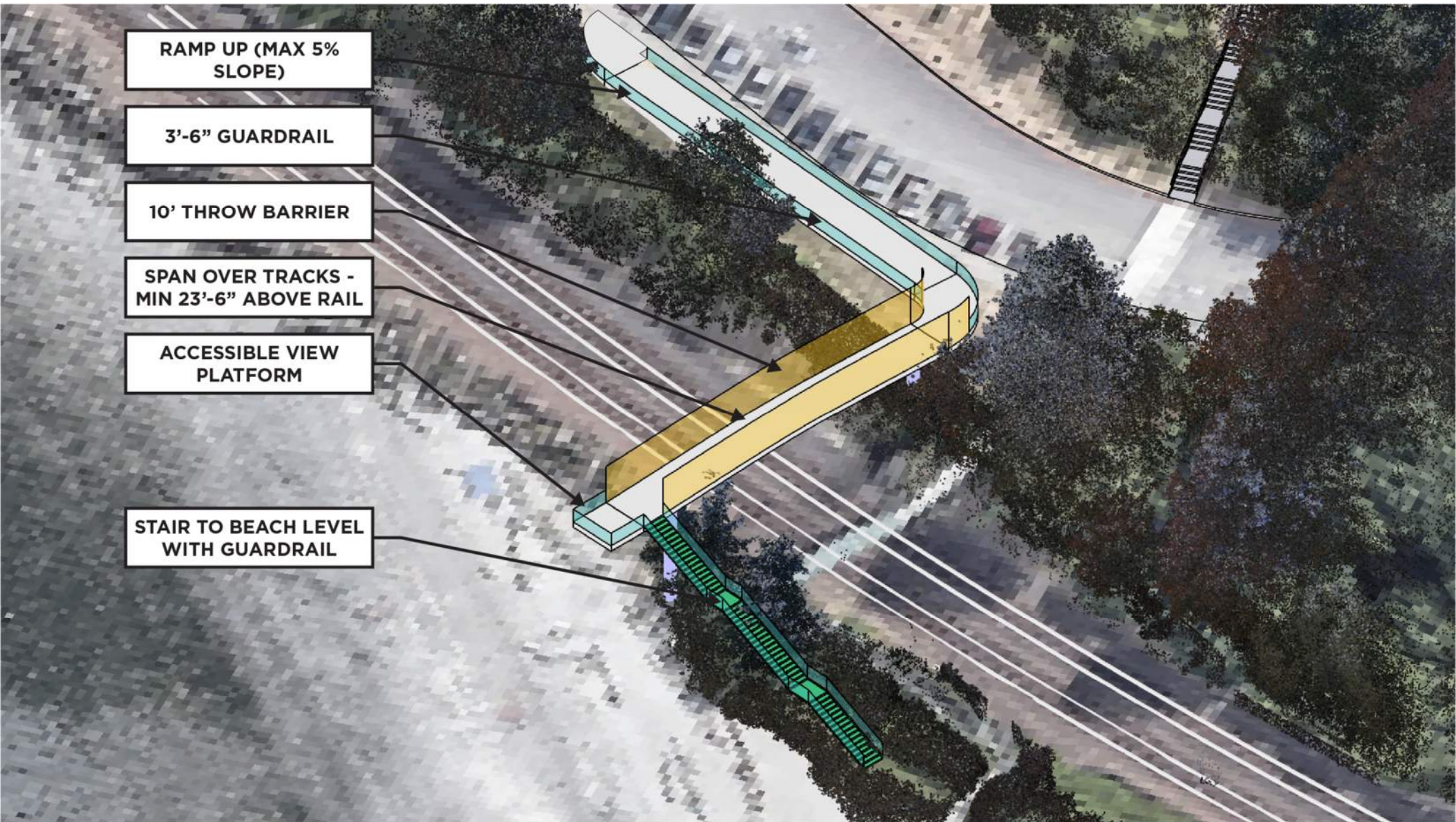
Carkeek Park Pedestrian Bridge: Site Analysis



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Carkeek Park Pedestrian Bridge: Site Analysis

Typical Bridge Features



RAMP UP (MAX 5% SLOPE)

3'-6" GUARDRAIL

10' THROW BARRIER

SPAN OVER TRACKS - MIN 23'-6" ABOVE RAIL

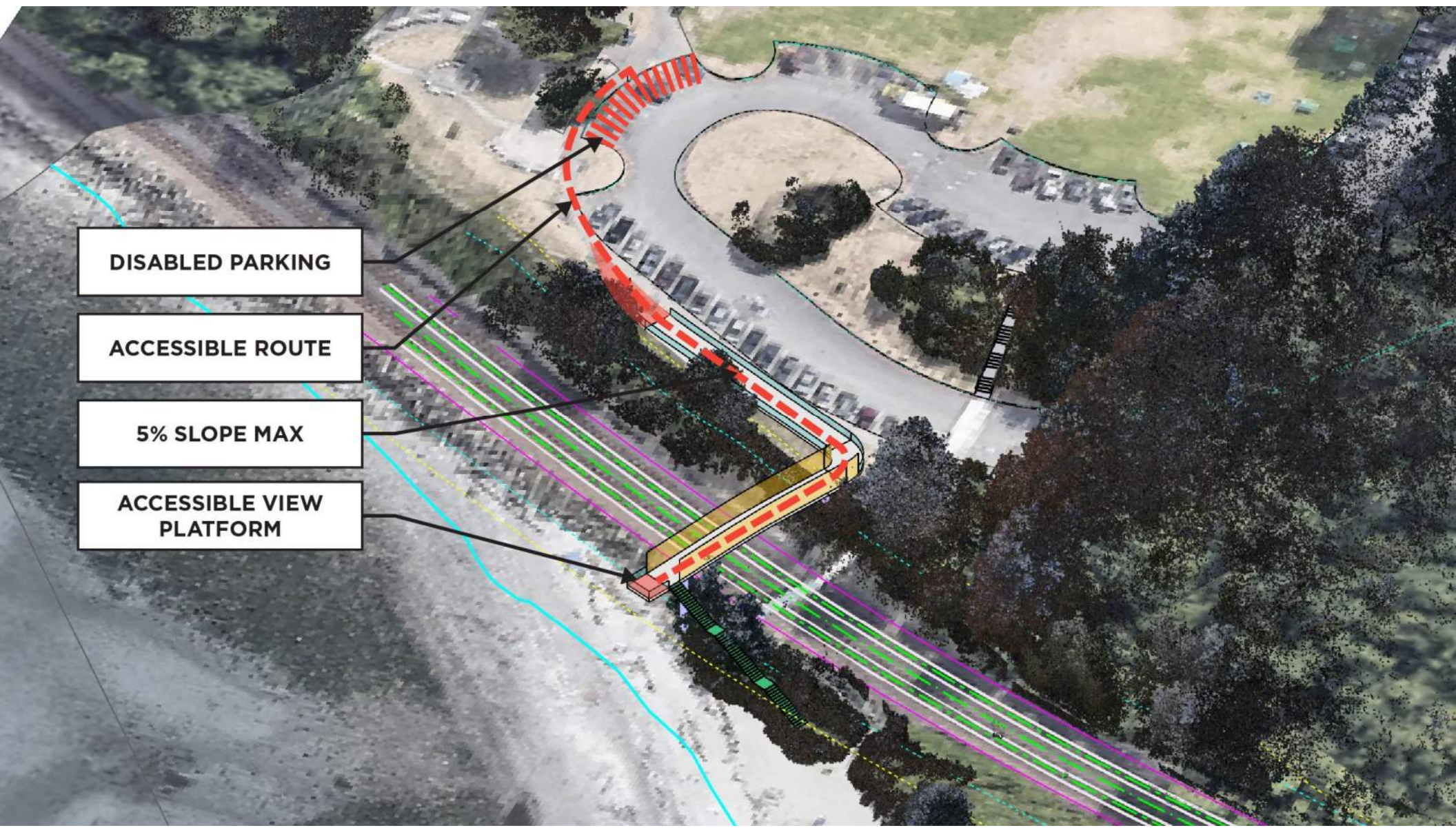
ACCESSIBLE VIEW PLATFORM

STAIR TO BEACH LEVEL WITH GUARDRAIL

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Carkeek Park Pedestrian Bridge: Site Analysis

Accessibility Concept



DISABLED PARKING

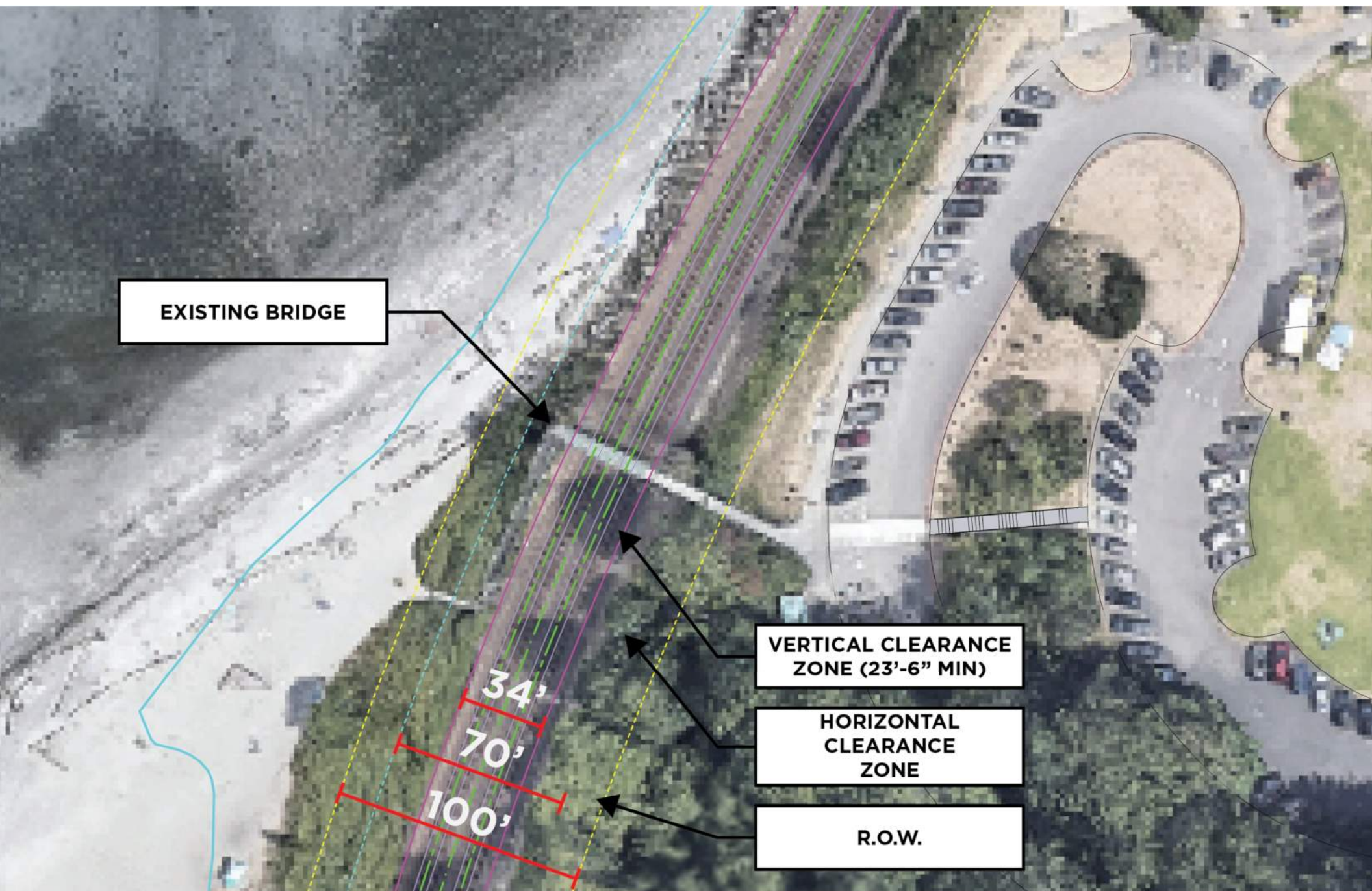
ACCESSIBLE ROUTE

5% SLOPE MAX

ACCESSIBLE VIEW PLATFORM

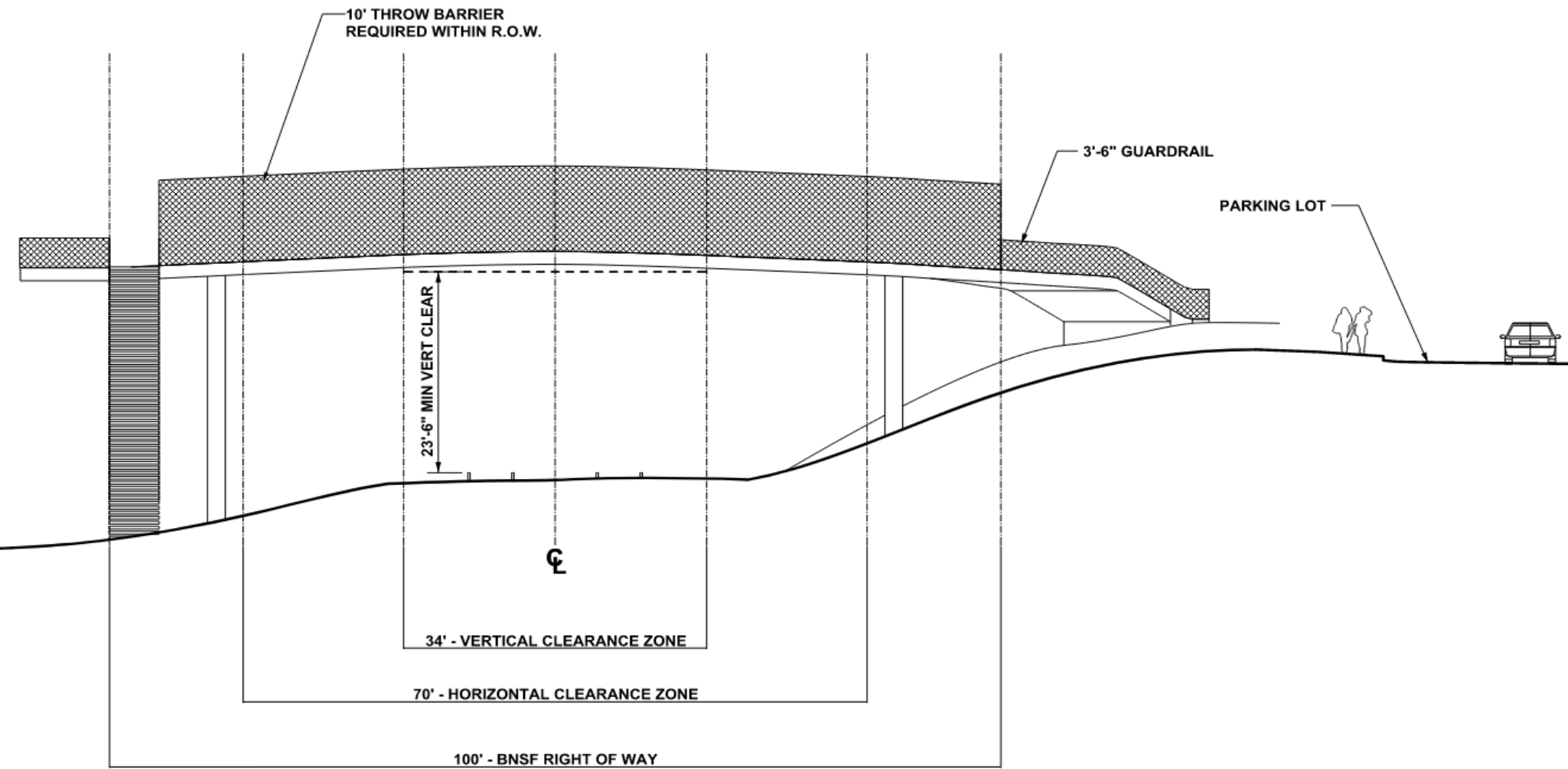
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Carkeek Park Pedestrian Bridge: BNSF Requirements



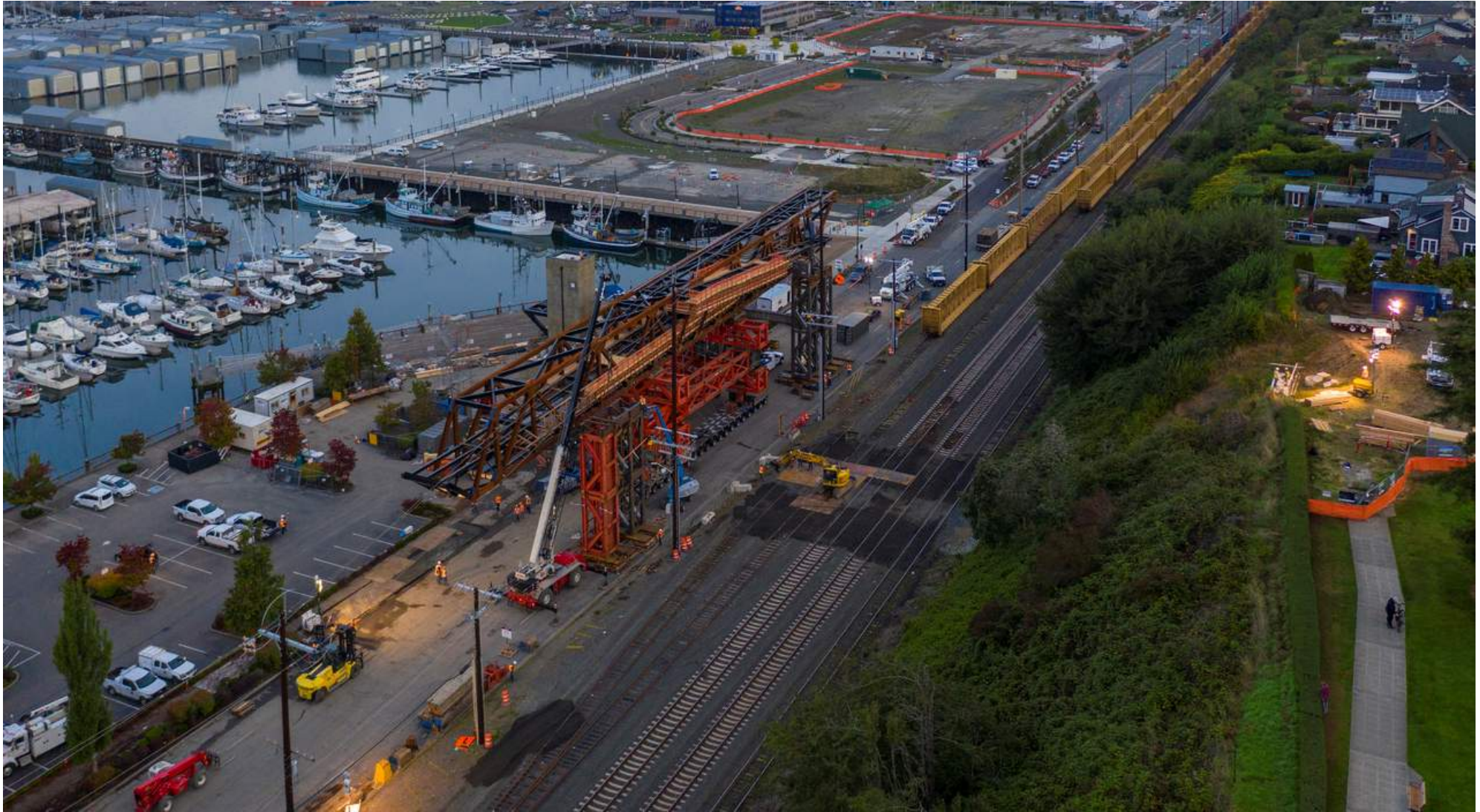
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Carkeek Park Pedestrian Bridge: BNSF Requirements



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Carkeek Park Pedestrian Bridge: BNSF Requirements



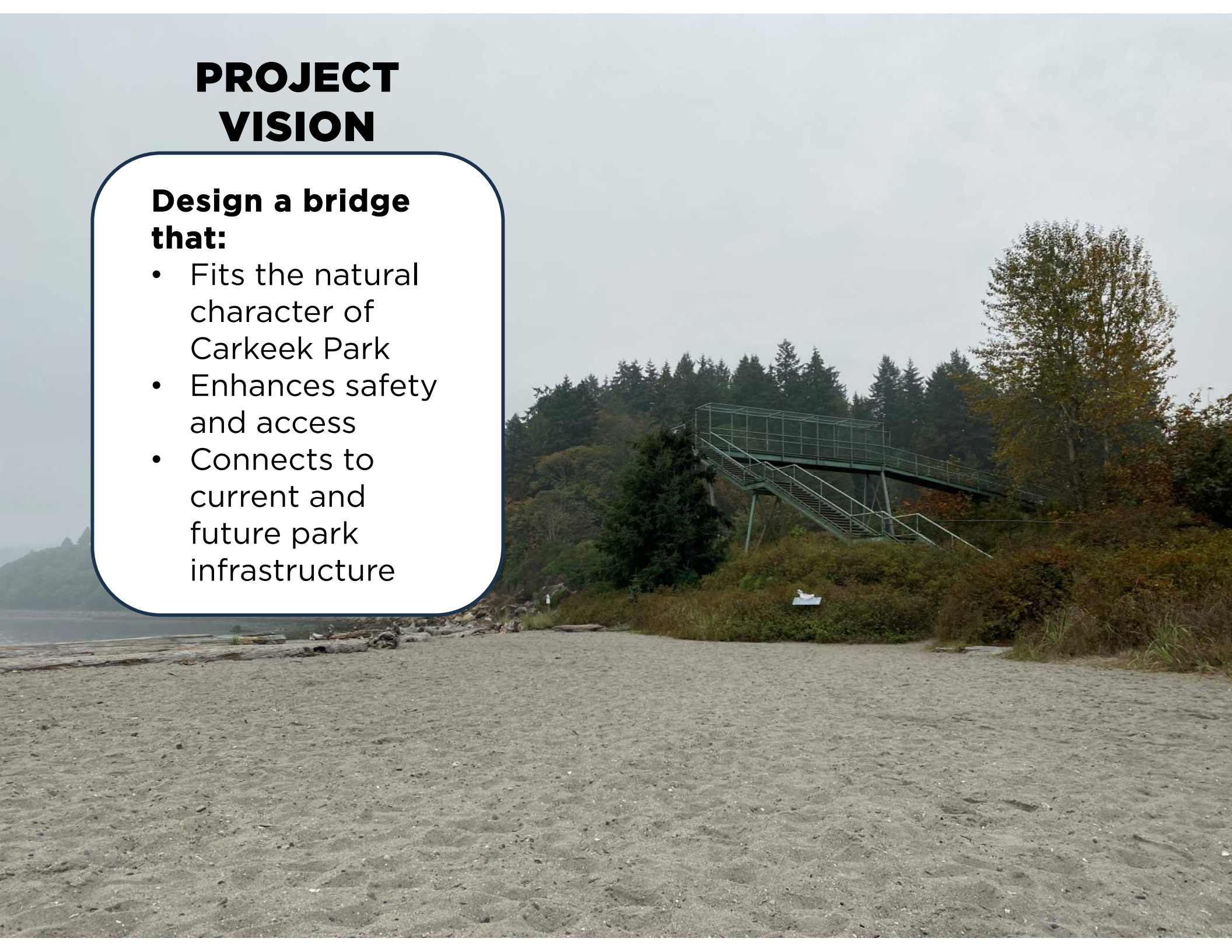
Prioritize prefabrication to minimize need for track closures

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PROJECT VISION

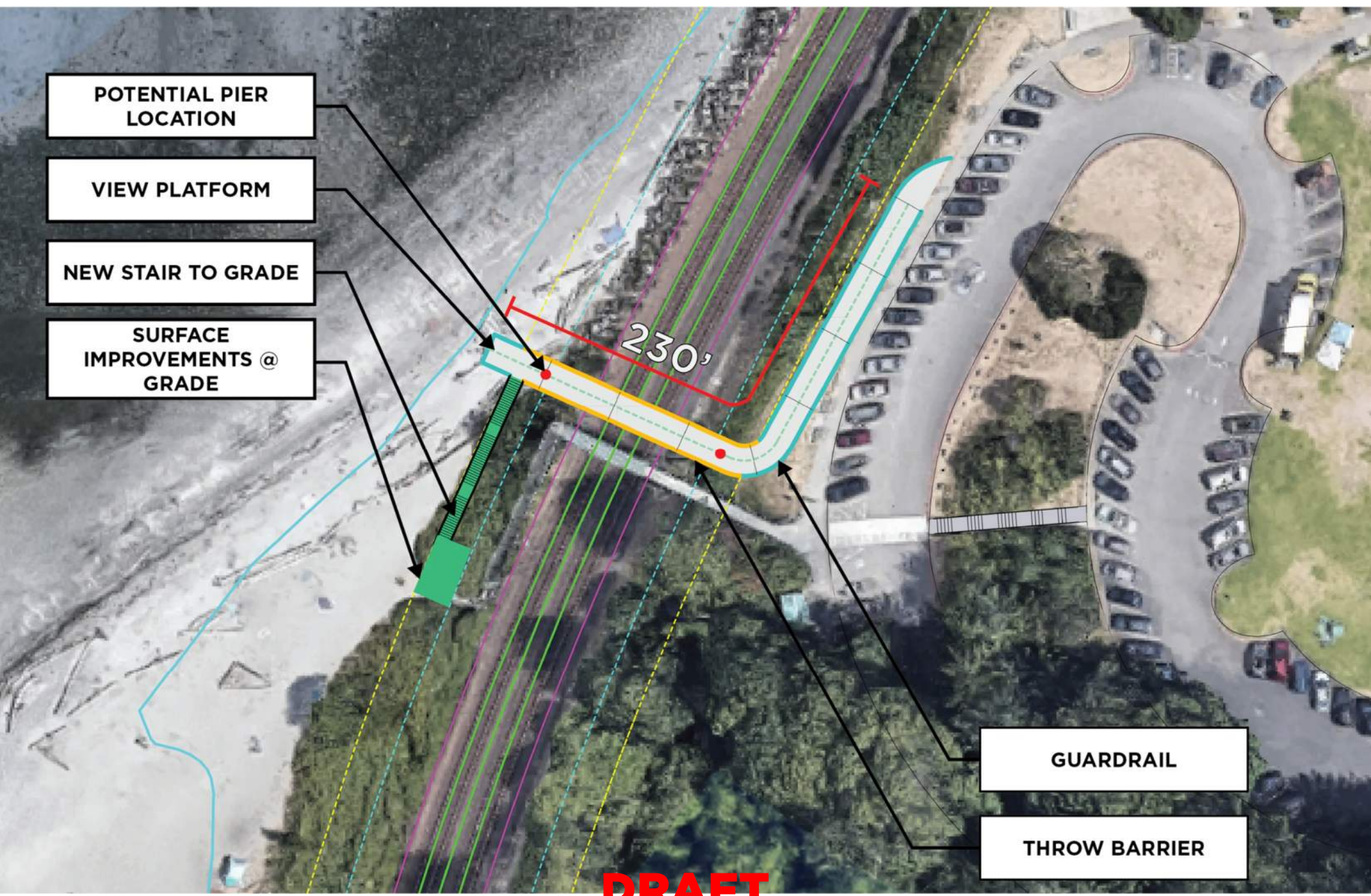
Design a bridge that:

- Fits the natural character of Carkeek Park
- Enhances safety and access
- Connects to current and future park infrastructure



Carkeek Park Pedestrian Bridge: New Bridge Alignments

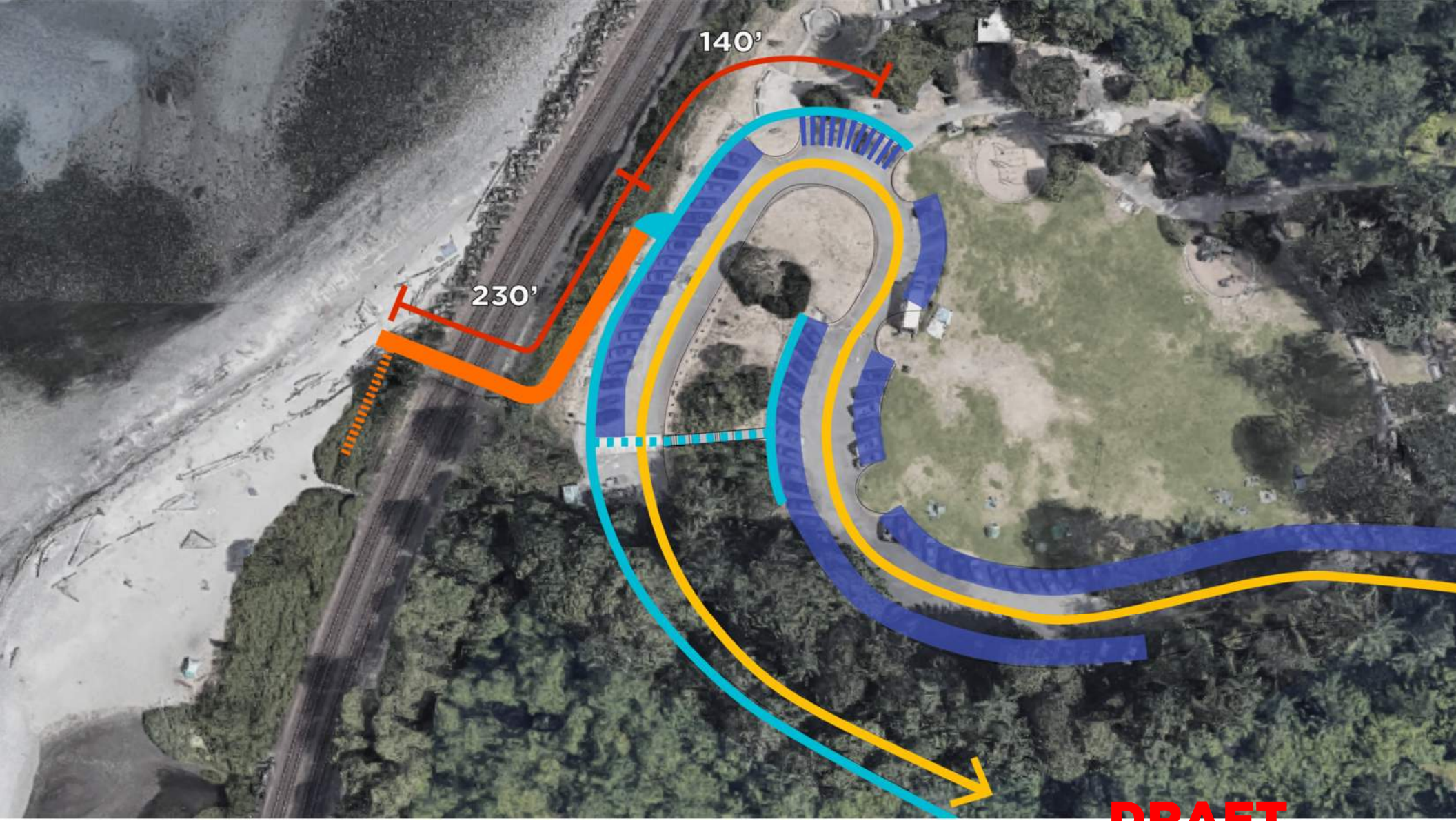
Scheme 1 - Lower Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 1 - Lower Lot



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PARKING

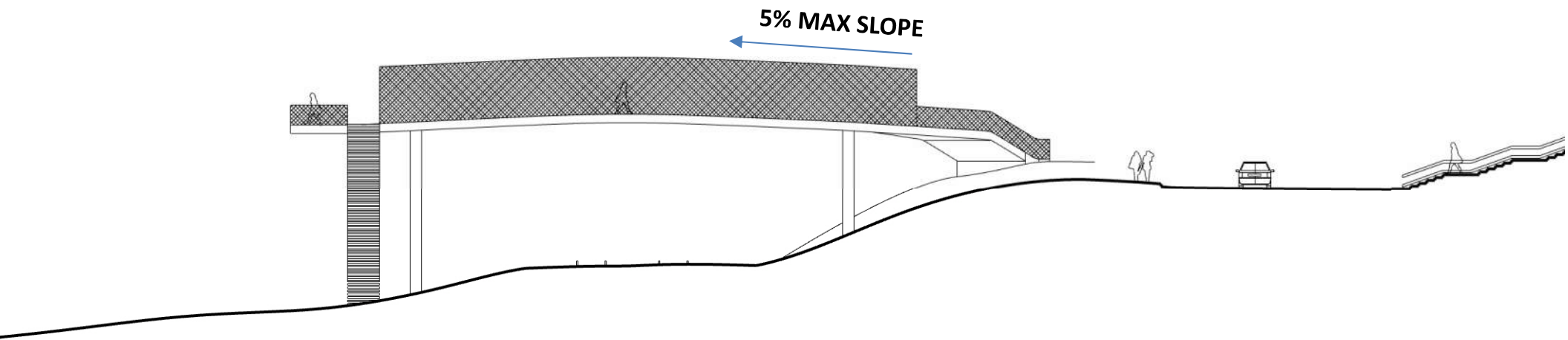
DISABLED PARKING

SIDEWALK

NEW BRIDGE

Carkeek Park Pedestrian Bridge: New Bridge Alignments

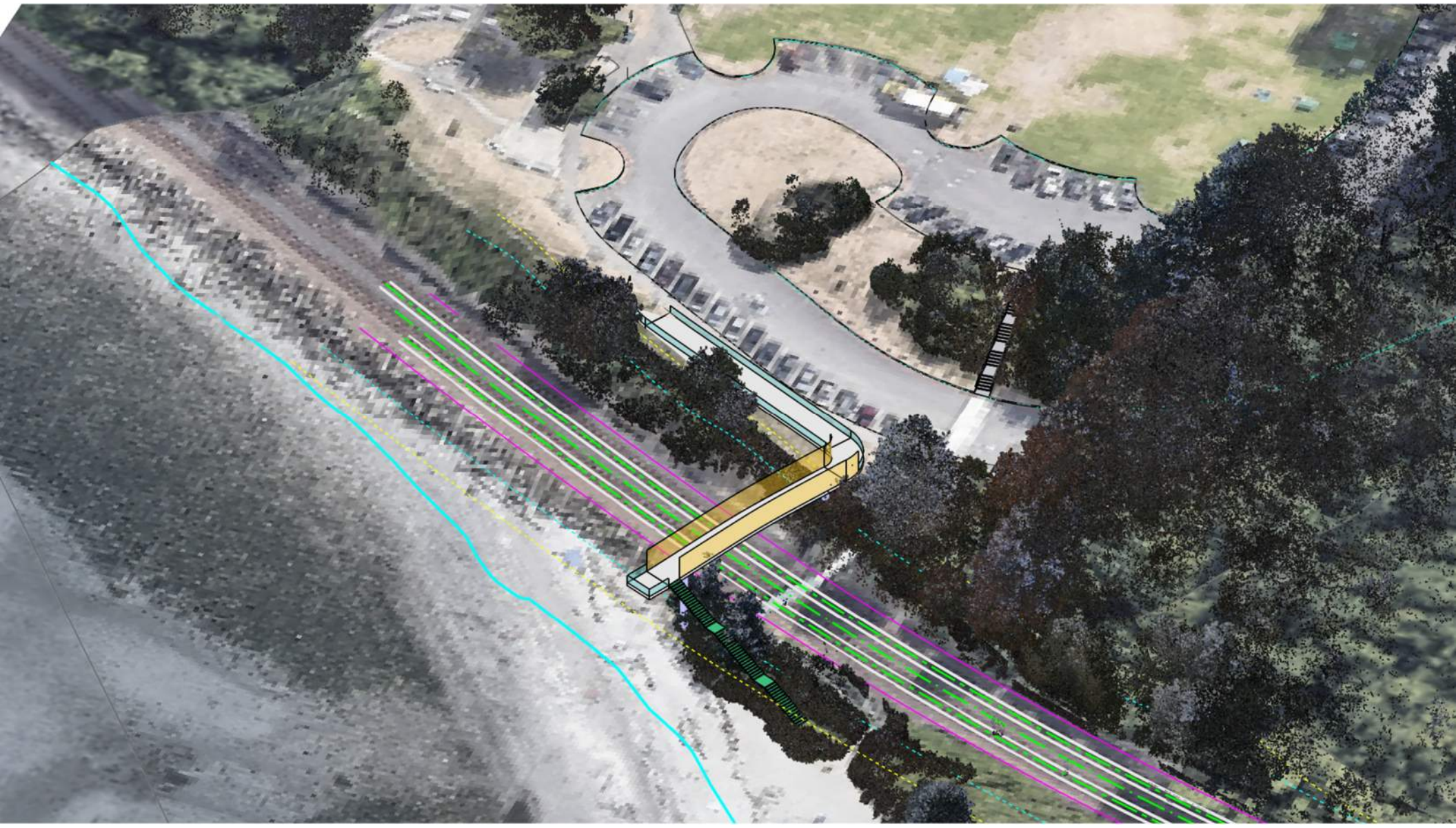
Scheme 1 - Lower Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

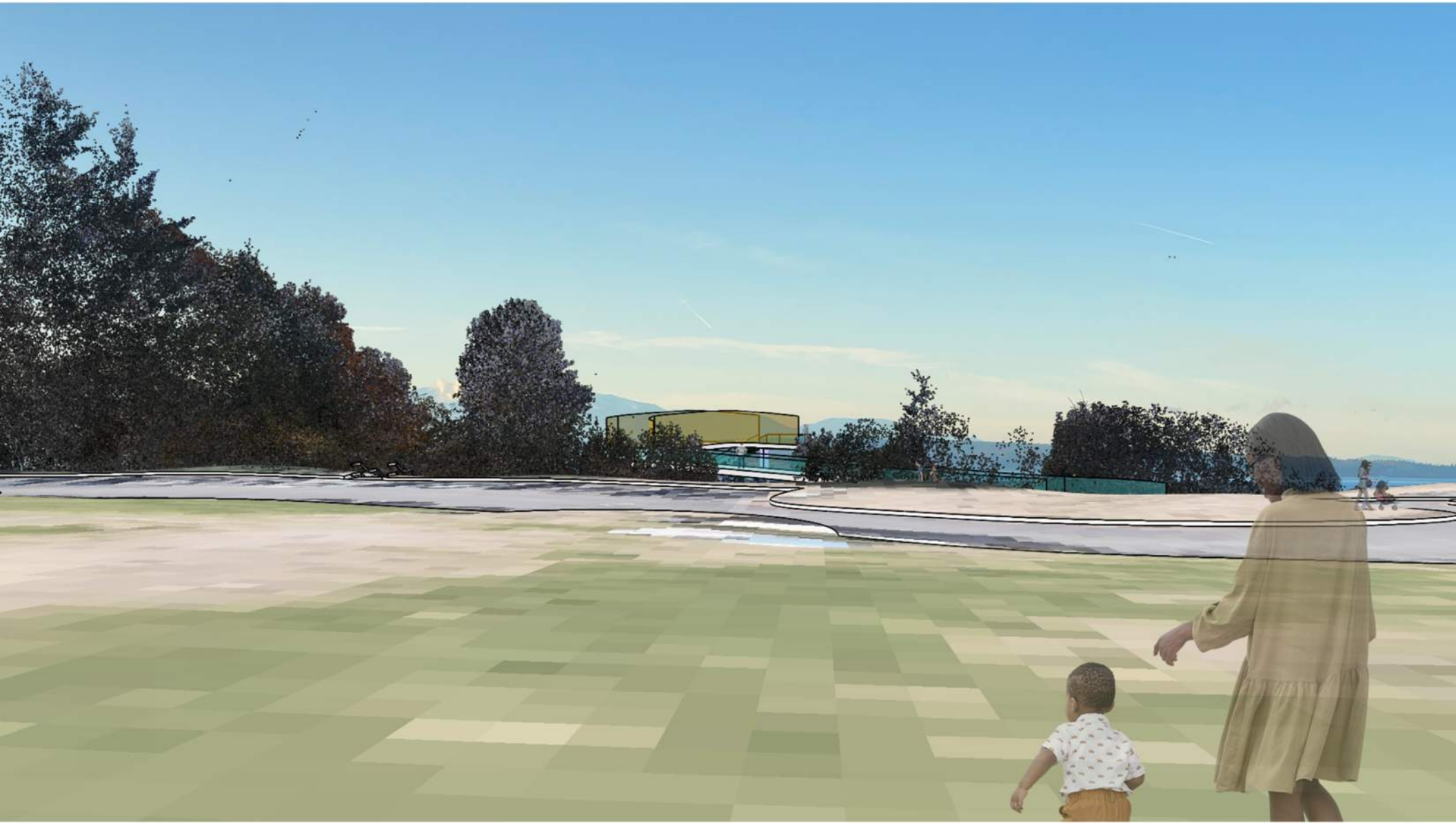
Scheme 1 - Lower Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

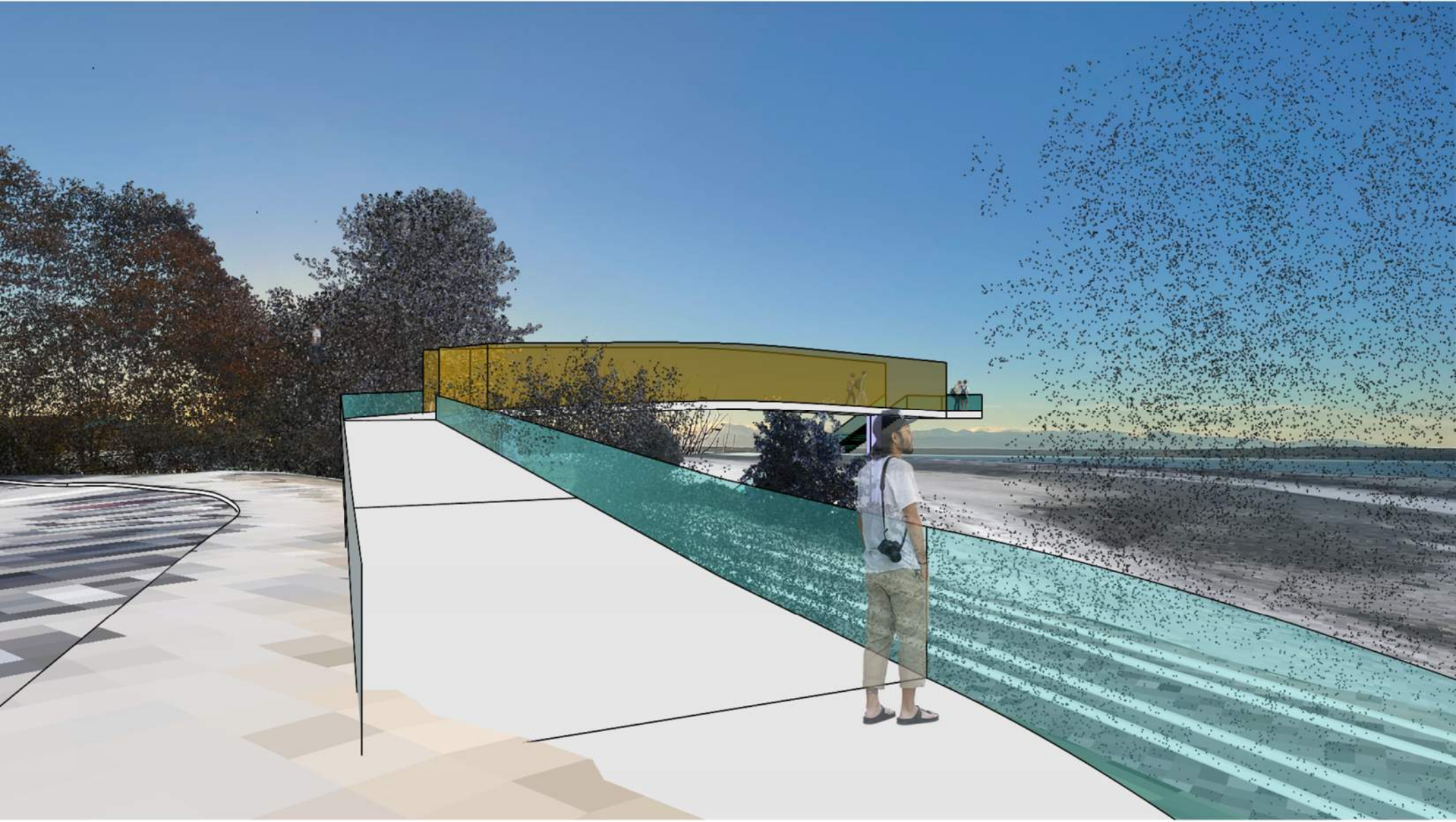
Scheme 1 - Lower Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

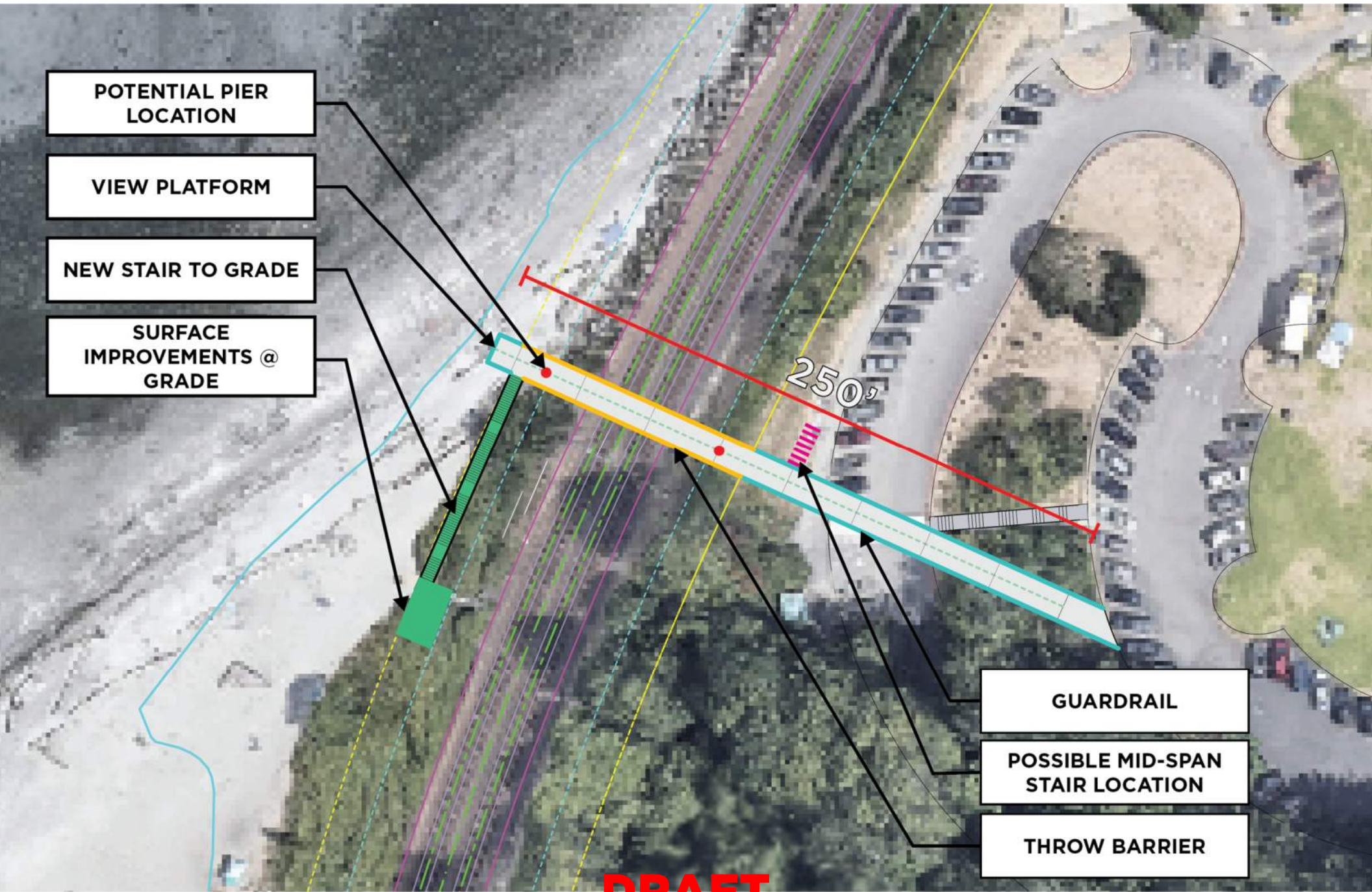
Scheme 1 - Lower Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 2 - Straight Shot



POTENTIAL PIER LOCATION

VIEW PLATFORM

NEW STAIR TO GRADE

SURFACE IMPROVEMENTS @ GRADE

250'

GUARDRAIL

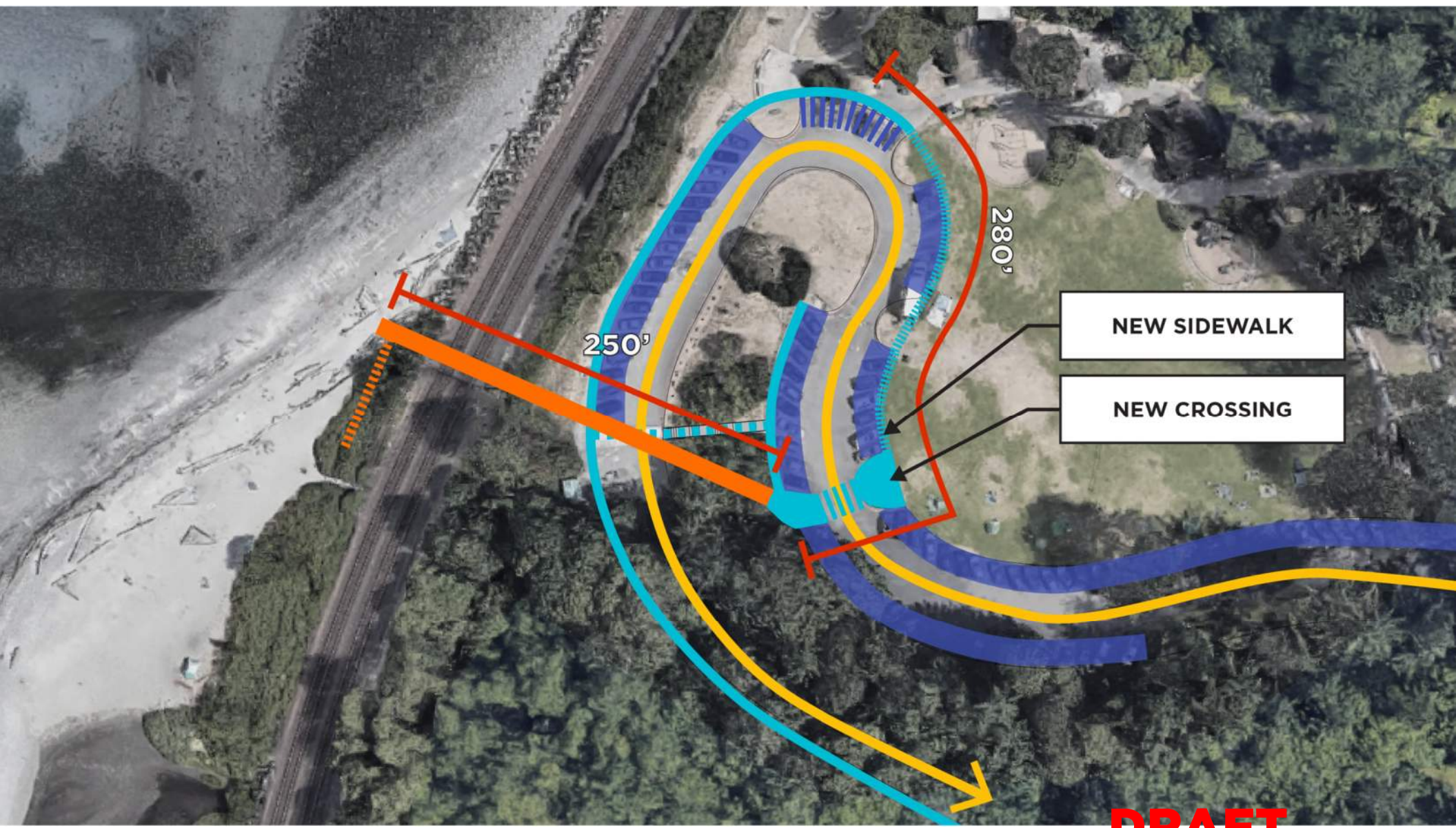
POSSIBLE MID-SPAN STAIR LOCATION

THROW BARRIER

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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 2 - Straight Shot



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PARKING

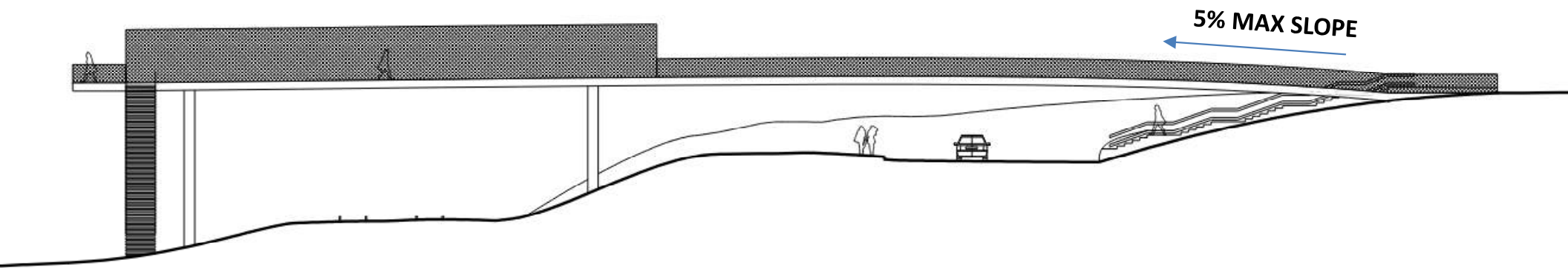
DISABLED PARKING

SIDEWALK

NEW BRIDGE

Carkeek Park Pedestrian Bridge: New Bridge Alignments

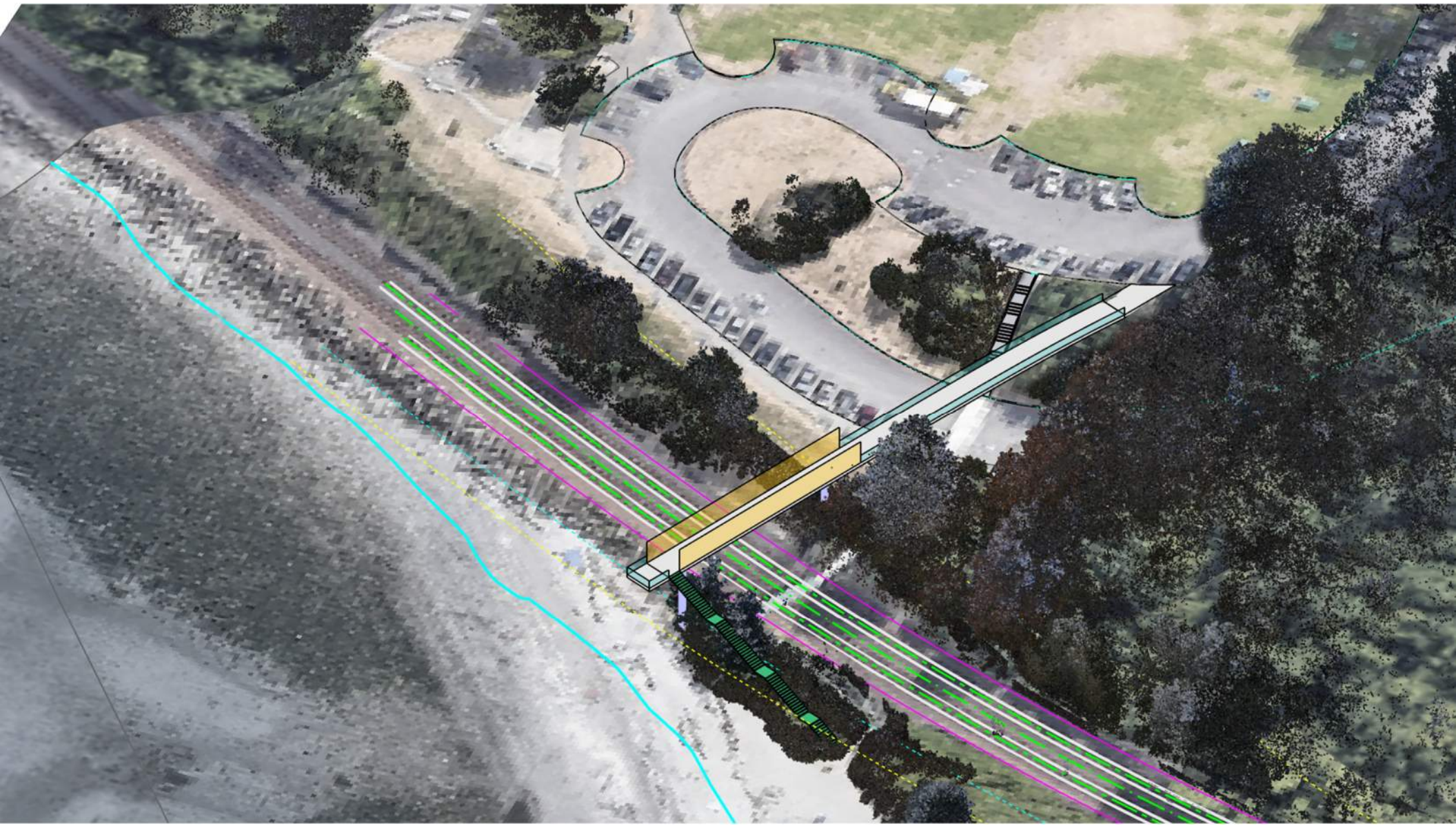
Scheme 2 - Straight Shot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

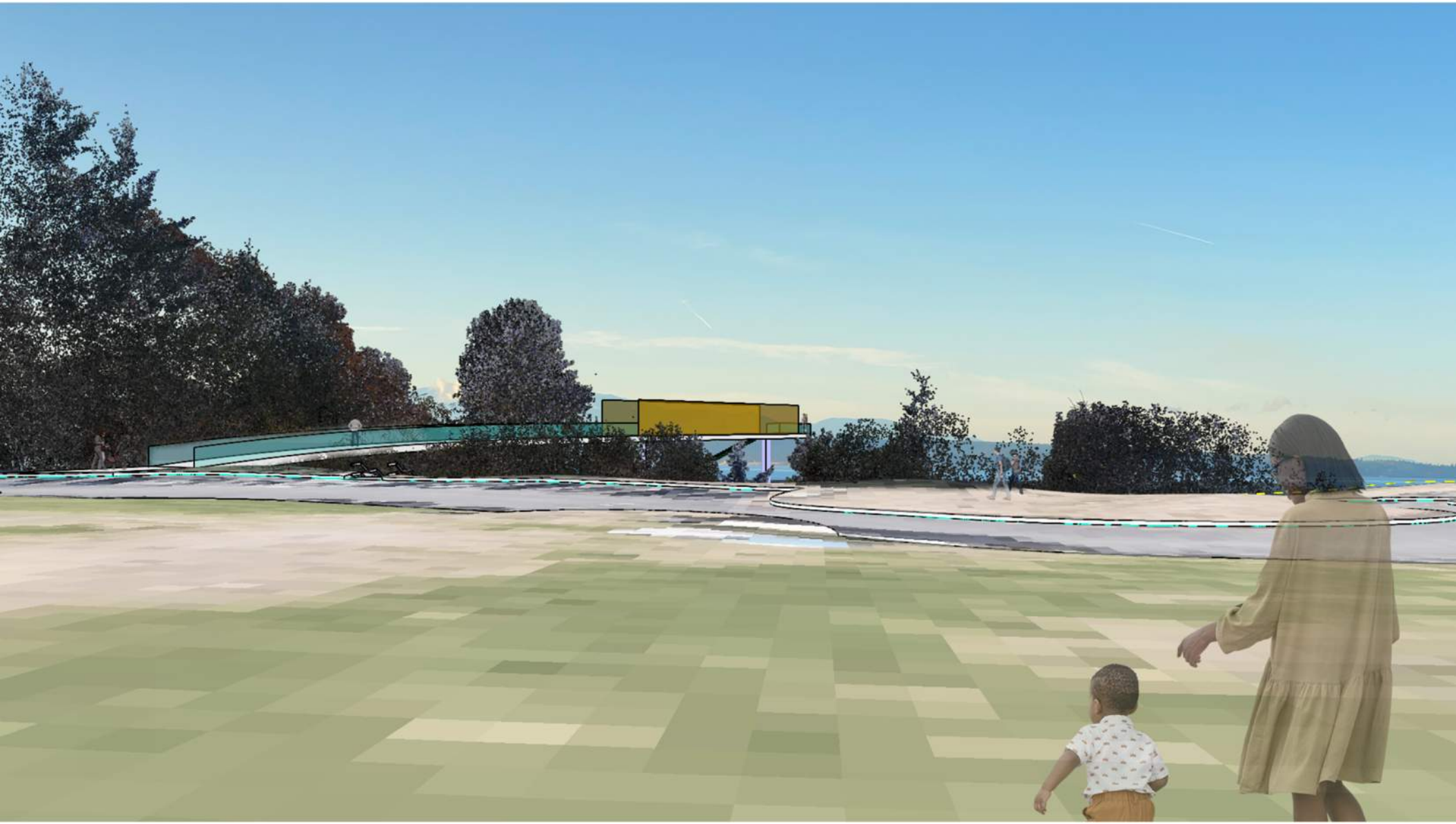
Scheme 2 - Straight Shot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 2 - Straight Shot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 2 - Straight Shot

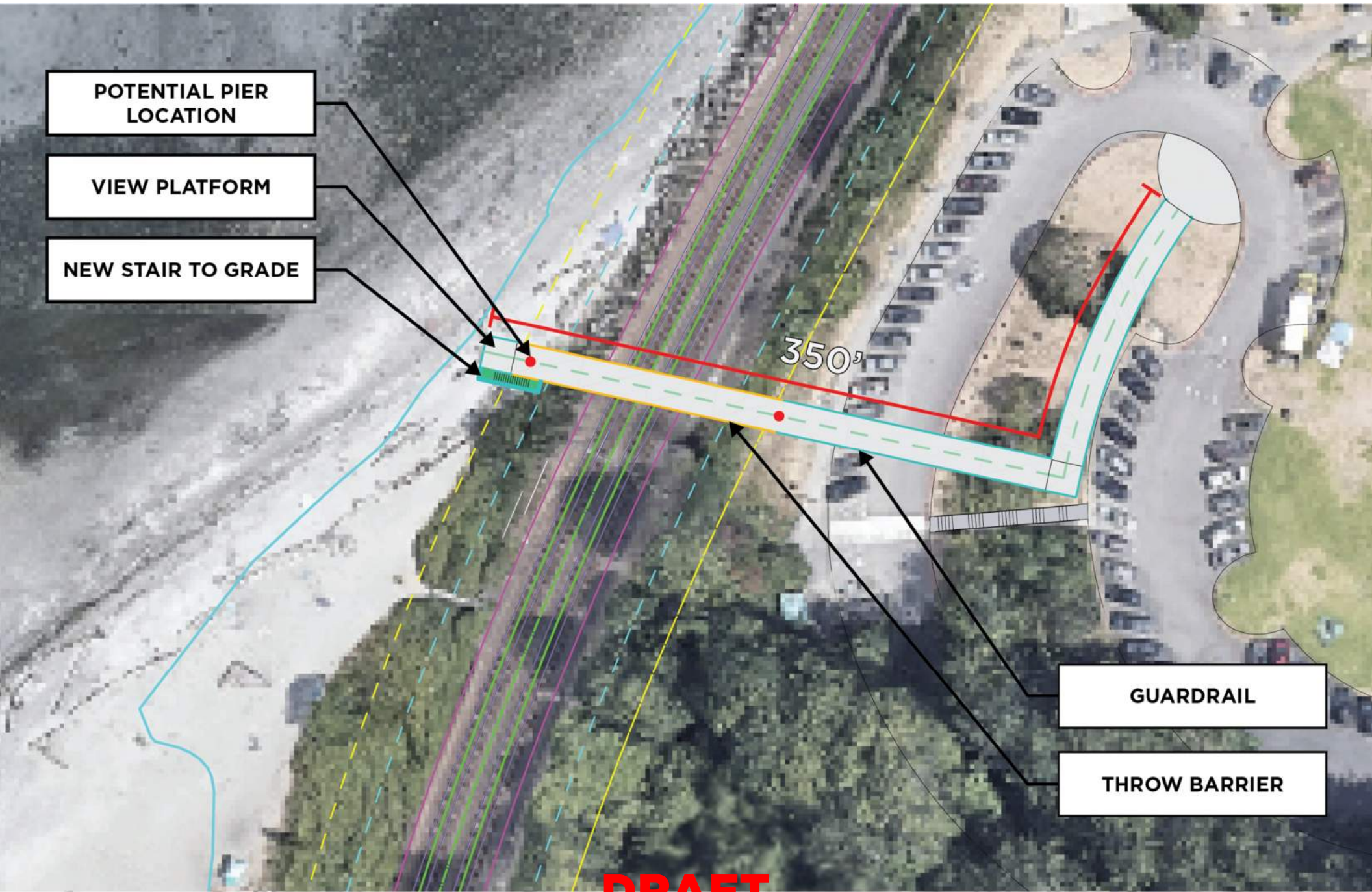


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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 3 - Upper Lot

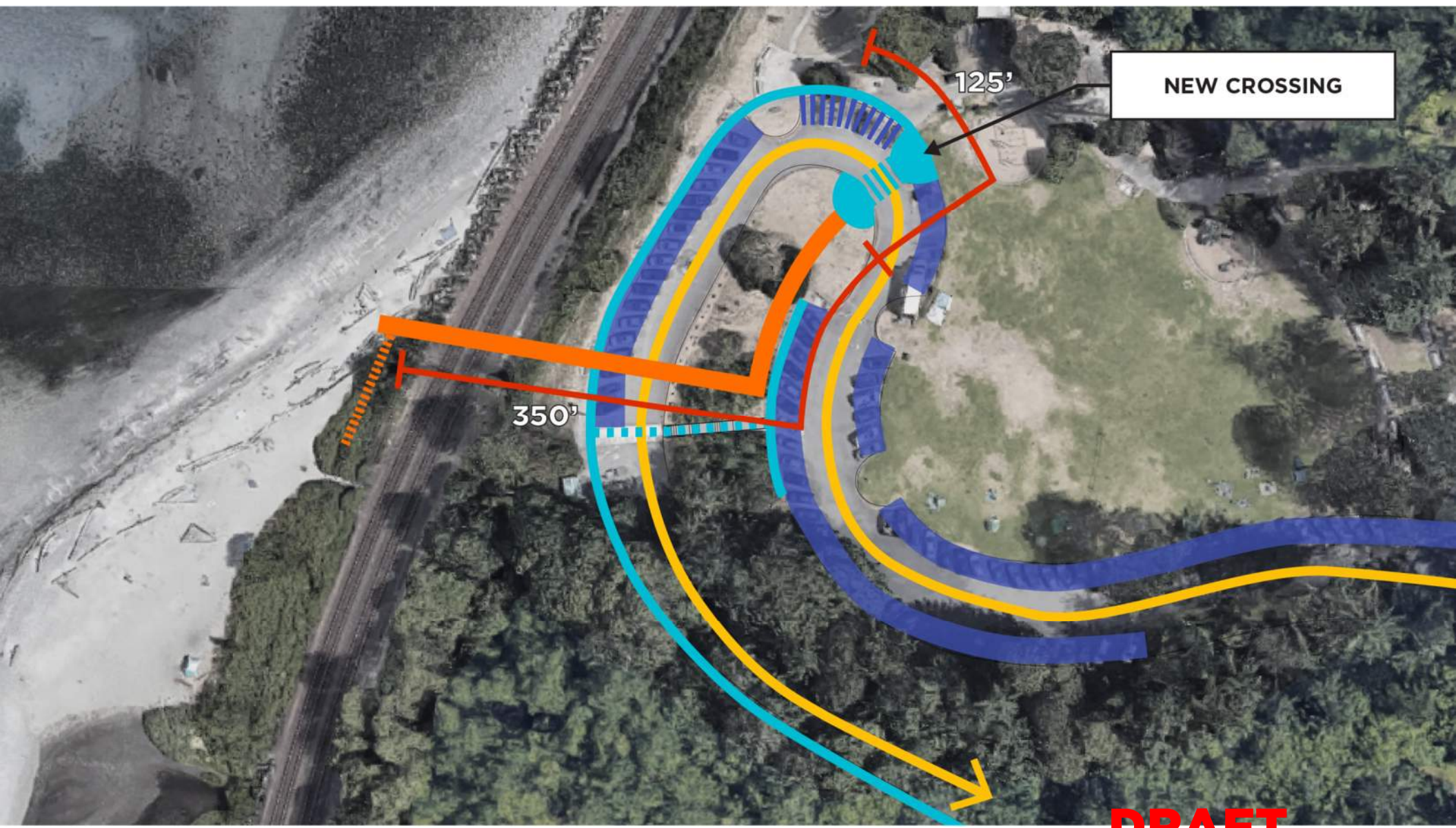
- POTENTIAL PIER LOCATION
- VIEW PLATFORM
- NEW STAIR TO GRADE



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 3 - Upper Lot



CAR TRAFFIC

PARKING

DISABLED PARKING

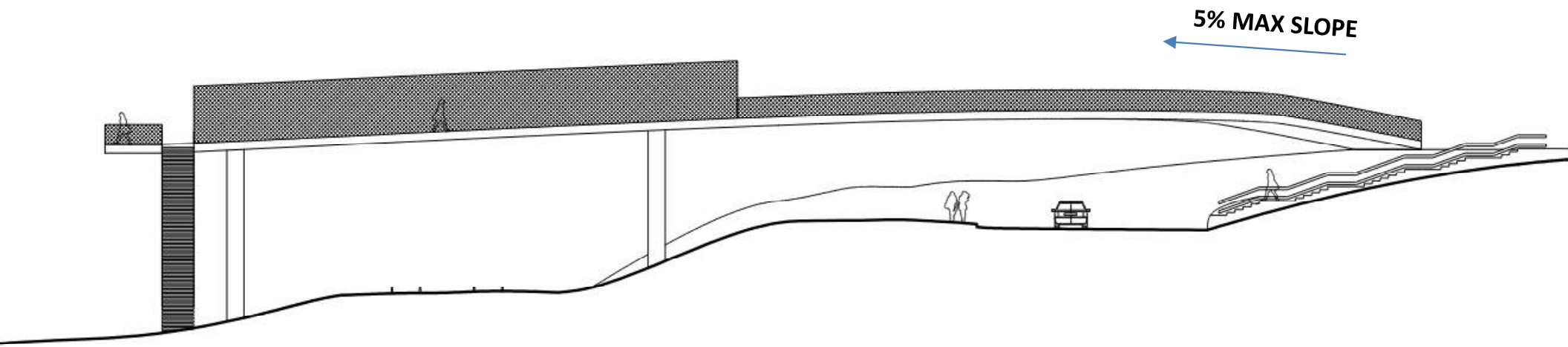
SIDEWALK

NEW BRIDGE

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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 3 - Upper Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

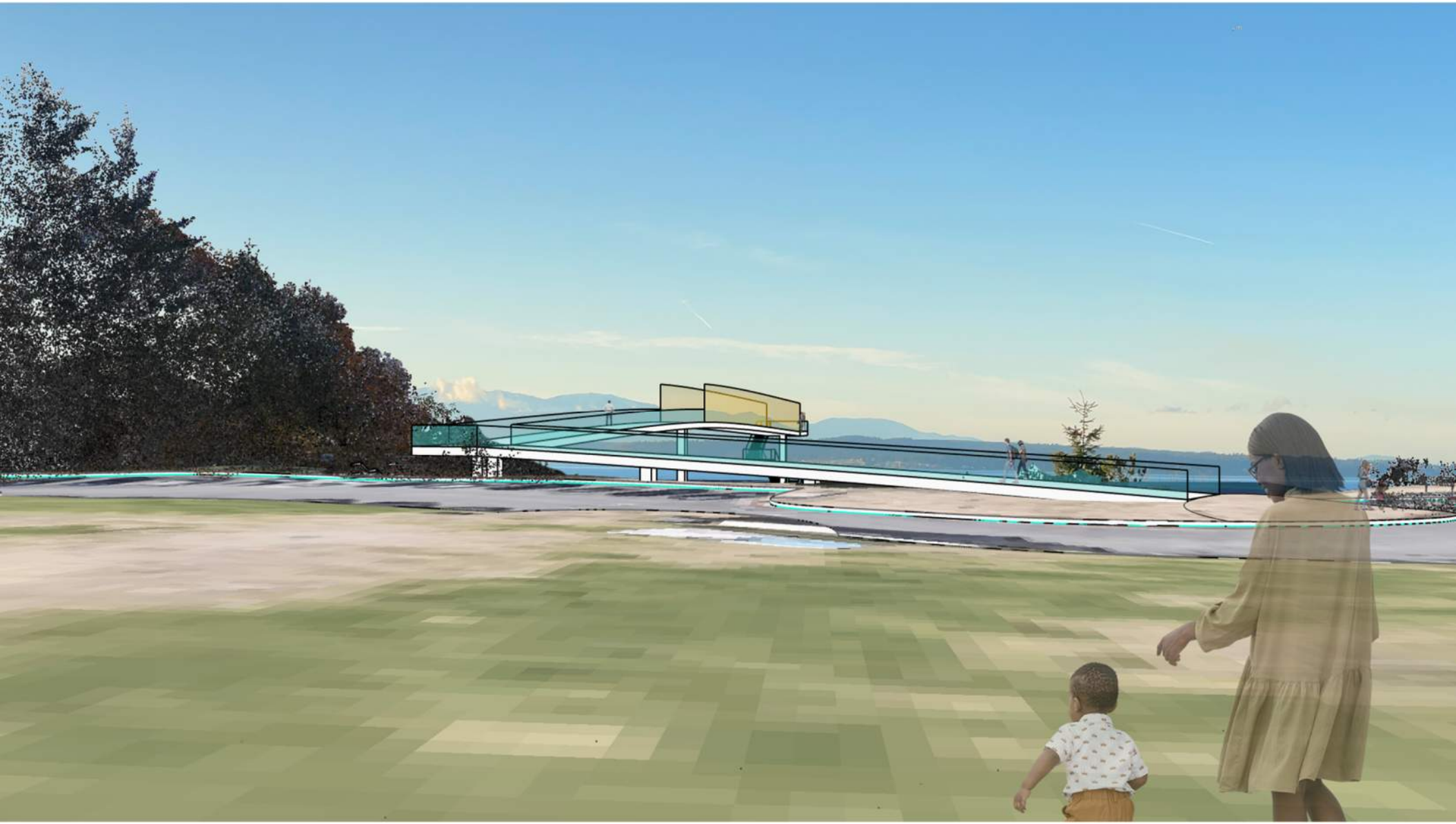
Scheme 3 - Upper Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 3 - Upper Lot



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Carkeek Park Pedestrian Bridge: New Bridge Alignments

Scheme 3 - Upper Lot



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Carkeek Park Pedestrian Bridge: Materials



Embodied Carbon



Salmon Safe



Maintenance



Deck Weight

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