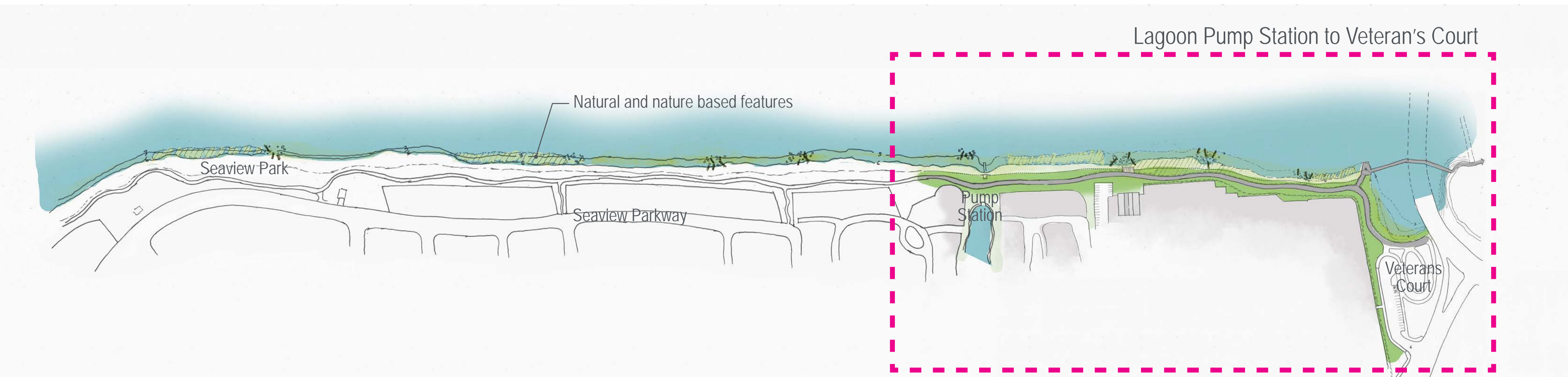


# BAY FARM ISLAND ADAPTATION STRATEGIES

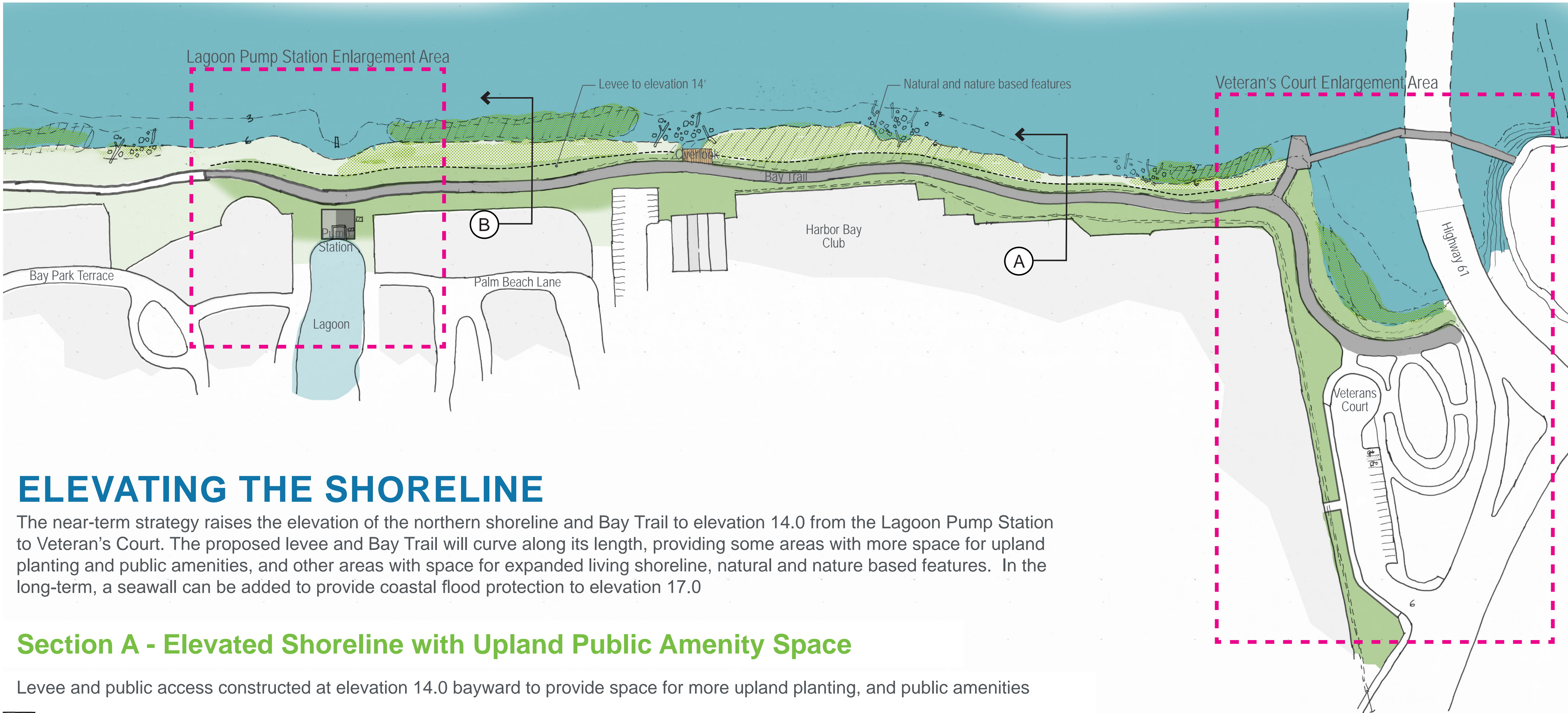
Oakland Alameda Adaptation Committee (OAAC ADAPT)

## NORTHERN SHORELINE - NEAR-TERM ADAPTATION STRATEGIES

The Bay Farm Island near-term adaptation strategies include raising the shoreline elevation to 14.0 from Veterans Court to the Lagoon Pump Station, improving the lagoon outfall pump, and adding Natural and Nature Based Features from Veterans Court to Sea View Park.



### Lagoon Pump Station to Veterans Court

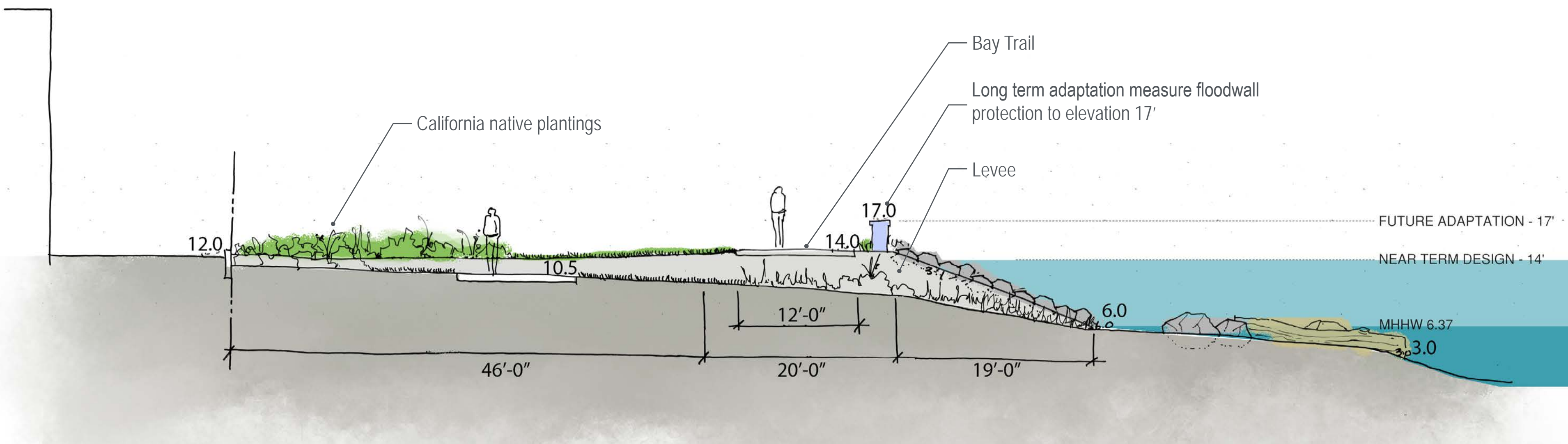


## ELEVATING THE SHORELINE

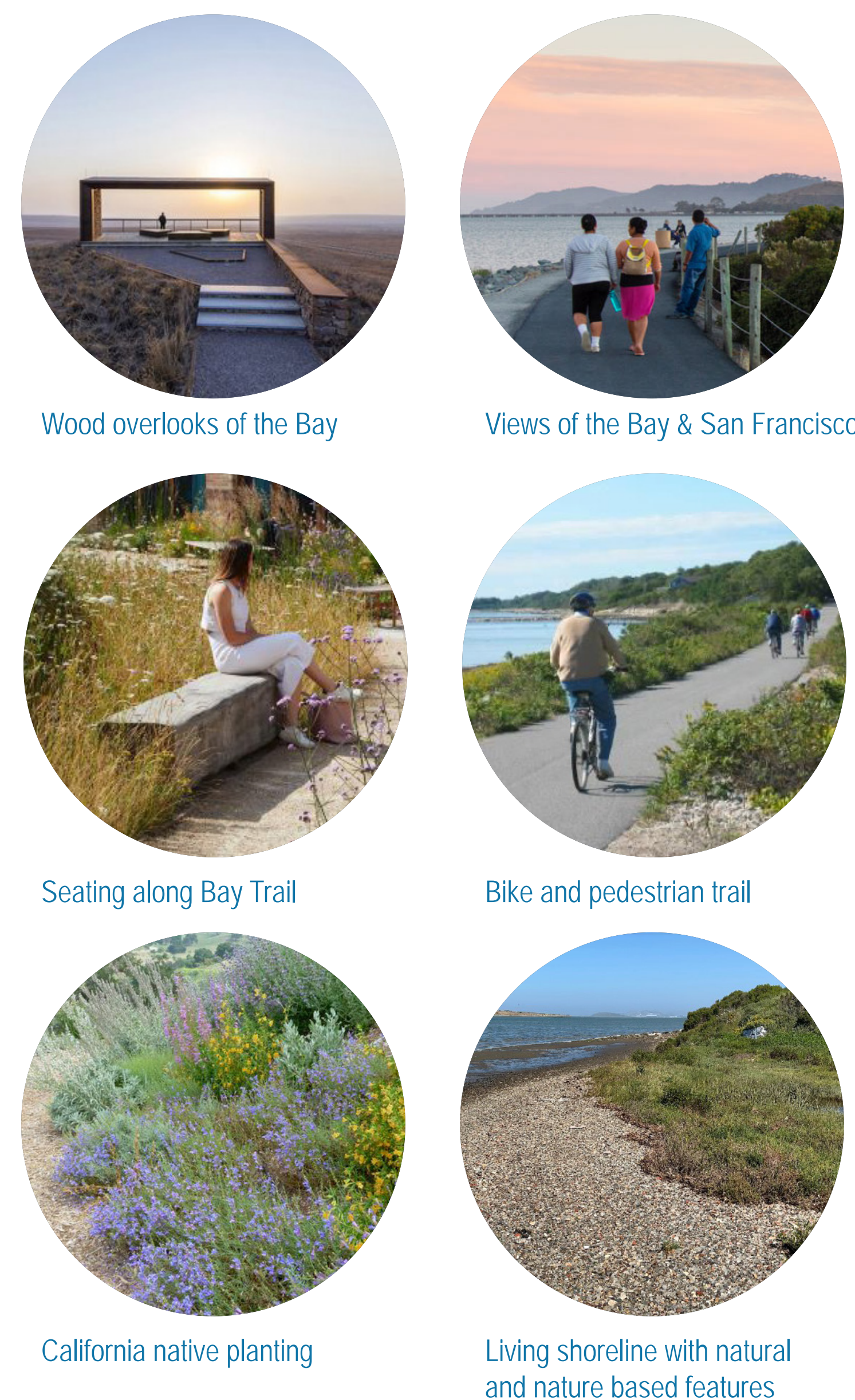
The near-term strategy raises the elevation of the northern shoreline and Bay Trail to elevation 14.0 from the Lagoon Pump Station to Veteran's Court. The proposed levee and Bay Trail will curve along its length, providing some areas with more space for upland planting and public amenities, and other areas with space for expanded living shoreline, natural and nature based features. In the long-term, a seawall can be added to provide coastal flood protection to elevation 17.0

### Section A - Elevated Shoreline with Upland Public Amenity Space

Levee and public access constructed at elevation 14.0 bayward to provide space for more upland planting, and public amenities

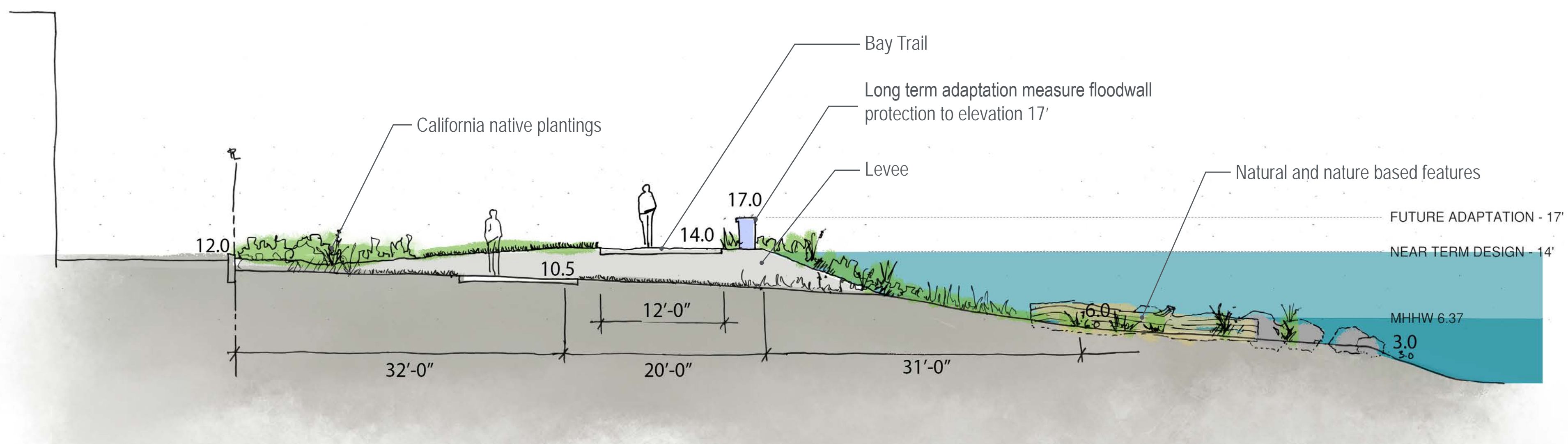


### Shoreline Character



### Section B - Elevated Shoreline with Expanded Natural and Nature Based Features

Levee and public access constructed at elevation 14.0 landward to provide space for expanded living shoreline and a more natural and nature based features.

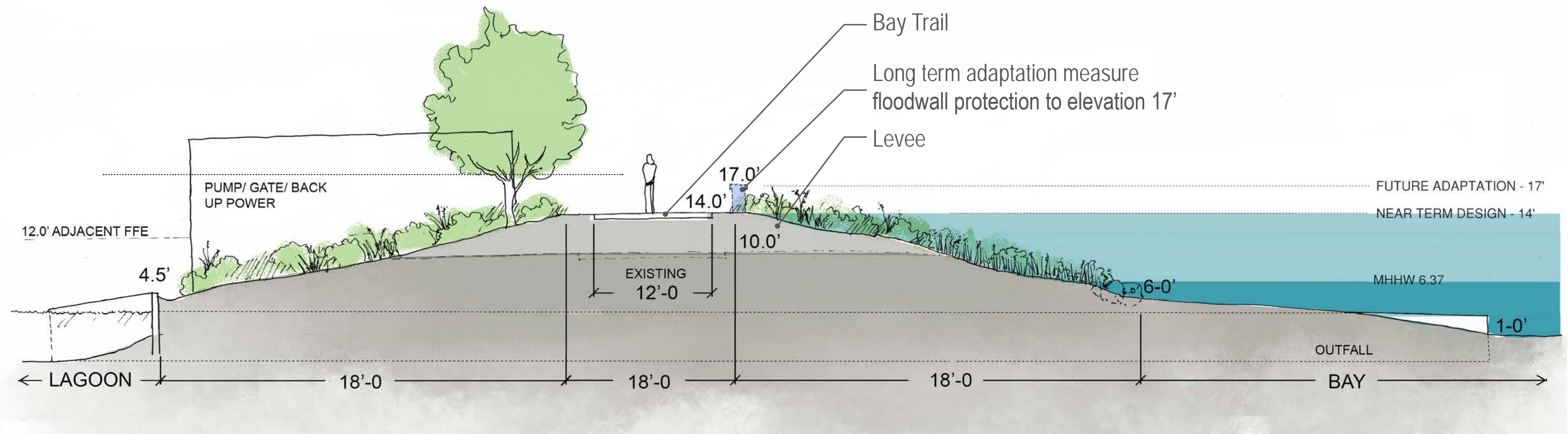
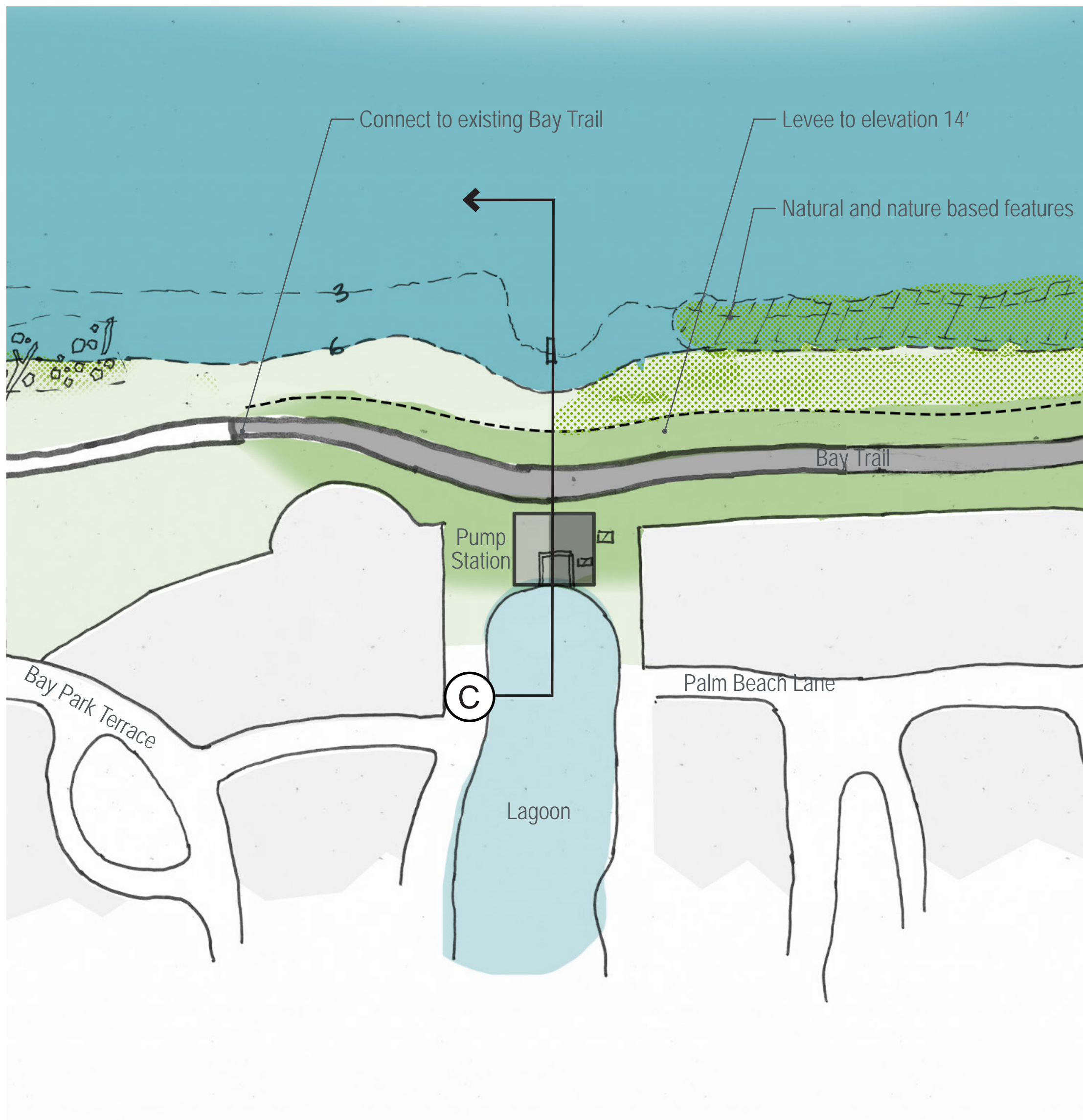


# BAY FARM ISLAND ADAPTATION STRATEGIES

Oakland Alameda Adaptation Committee (OAAC ADAPT)

## LAGOON OUTFALL - POTENTIAL NEAR-TERM ADAPTATION MEASURES

Lagoon pump improvements include increasing the capacity and adding back up power to the pumps. The pump facilities can be relocated south of the Bay Trail and out of the viewsheds of the Bay and San Francisco. The pump facilities would be enclosed in an architecturally suitable structure which will screen components and cancel noise.



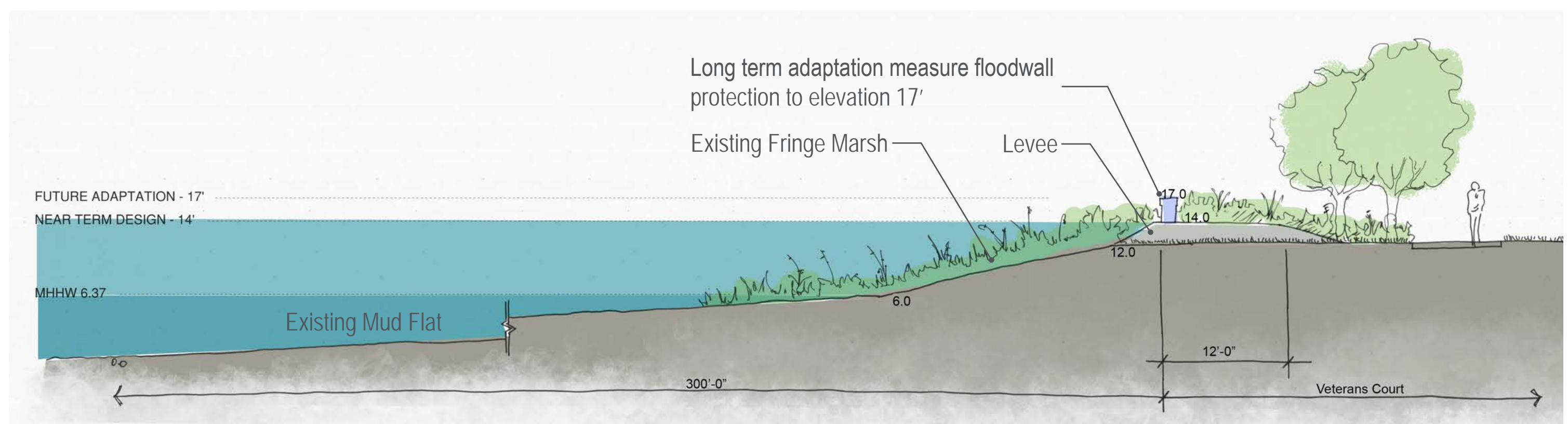
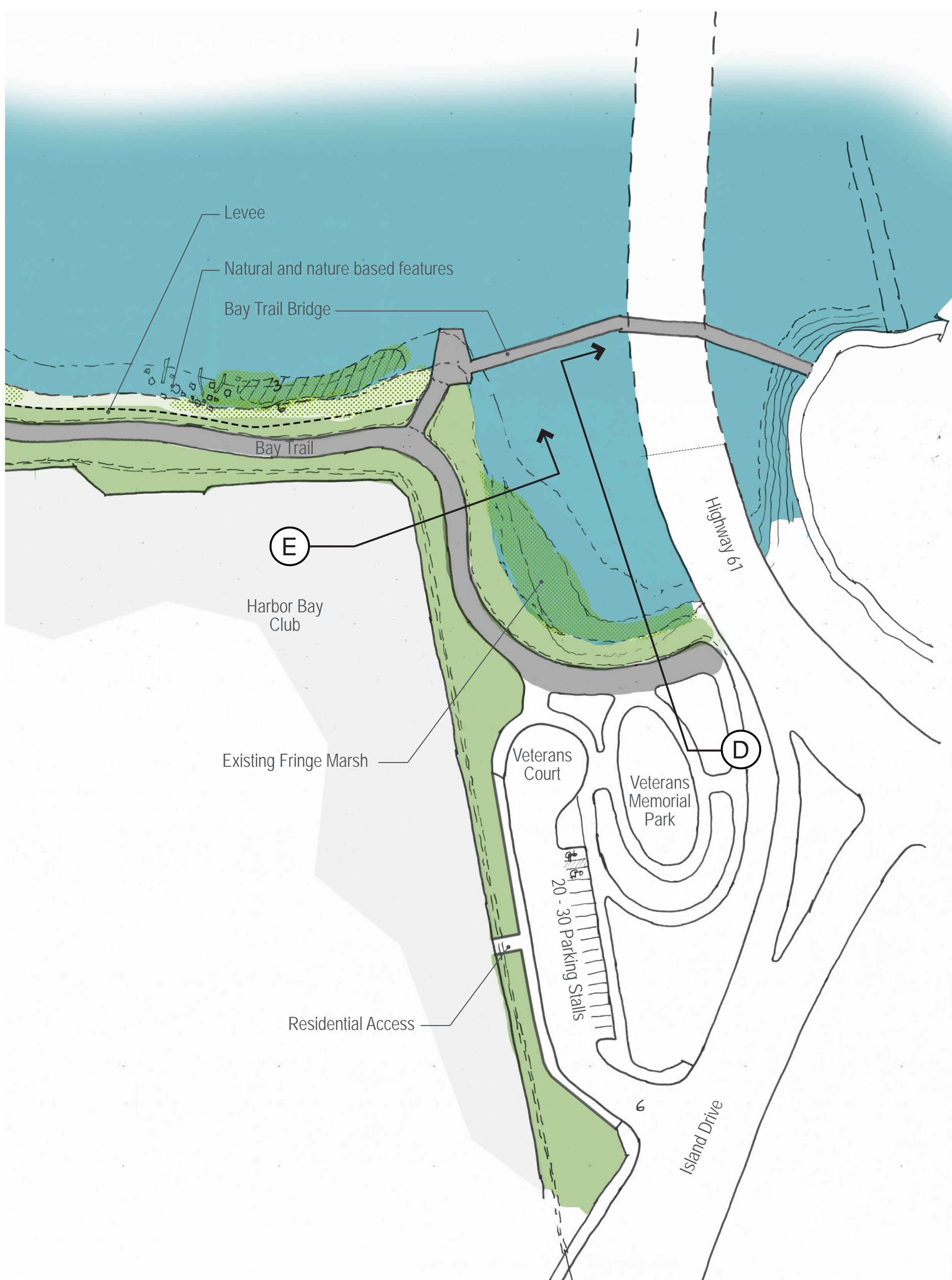
Section C - Lagoon Outfall



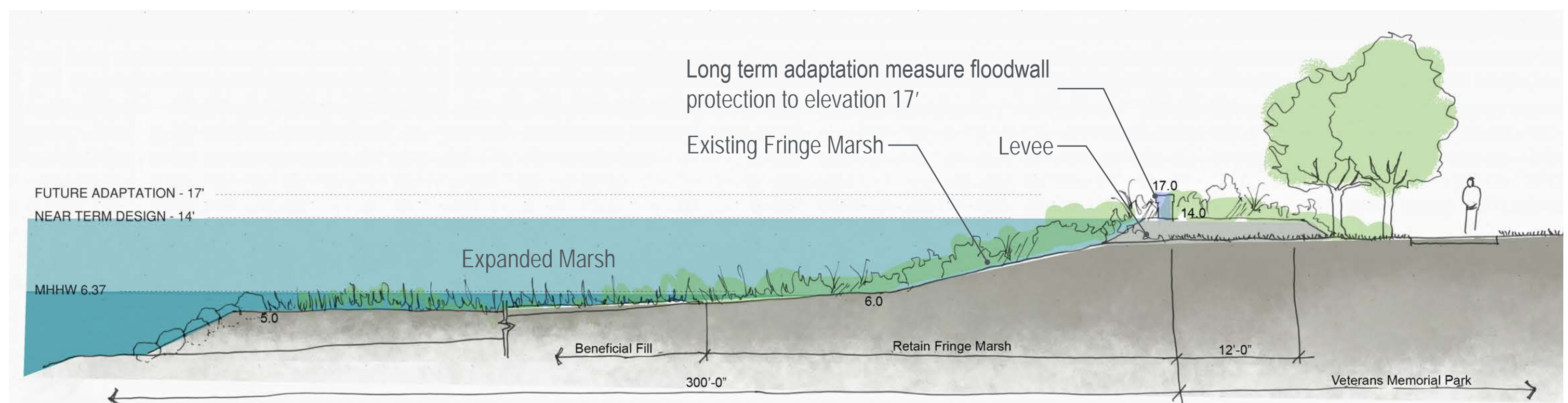
Example Pump Stations that enclose all pump, power and support facilities

## VETERANS COURT - POTENTIAL NEAR-TERM ADAPTATION MEASURES

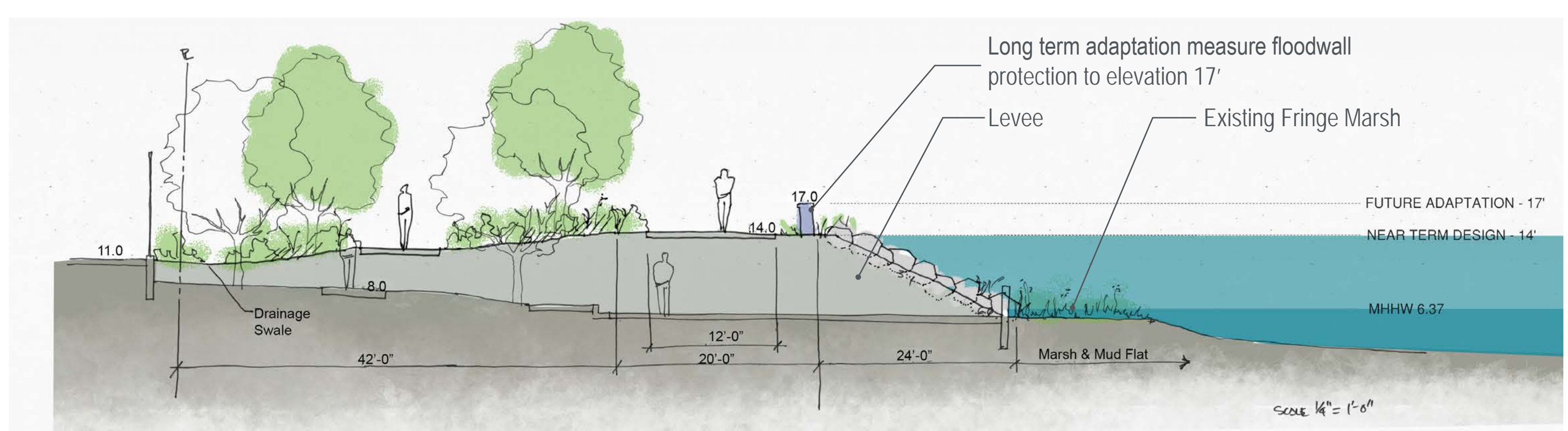
Shoreline improvements at Veterans Court include pulling Veterans Court drive and turnaround south, away from the shoreline. Circulation from Veterans Memorial Park is integrated with the Bay Trail and parking for 25-30 cars. The existing fringe marsh would be protected and could be expanded with the use of beneficial fill, transforming the existing mudflat to expanded marsh.



Section D, Alternative 1: Protect Existing Fringe Marsh



Section D, Alternative 2: Expand Marsh with Beneficial Fill



Section E - Levee at Doolittle Drive



PORT OF OAKLAND

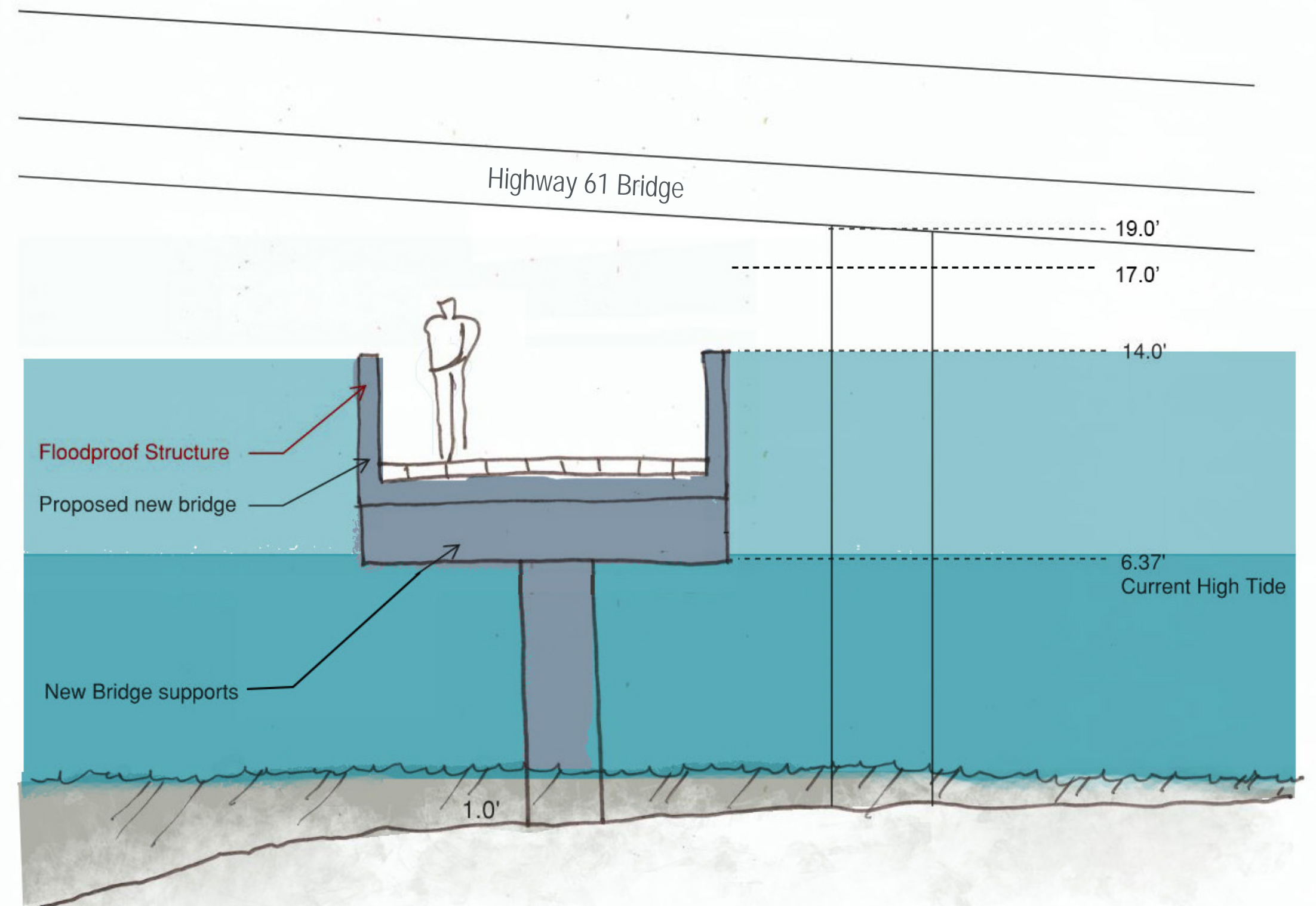
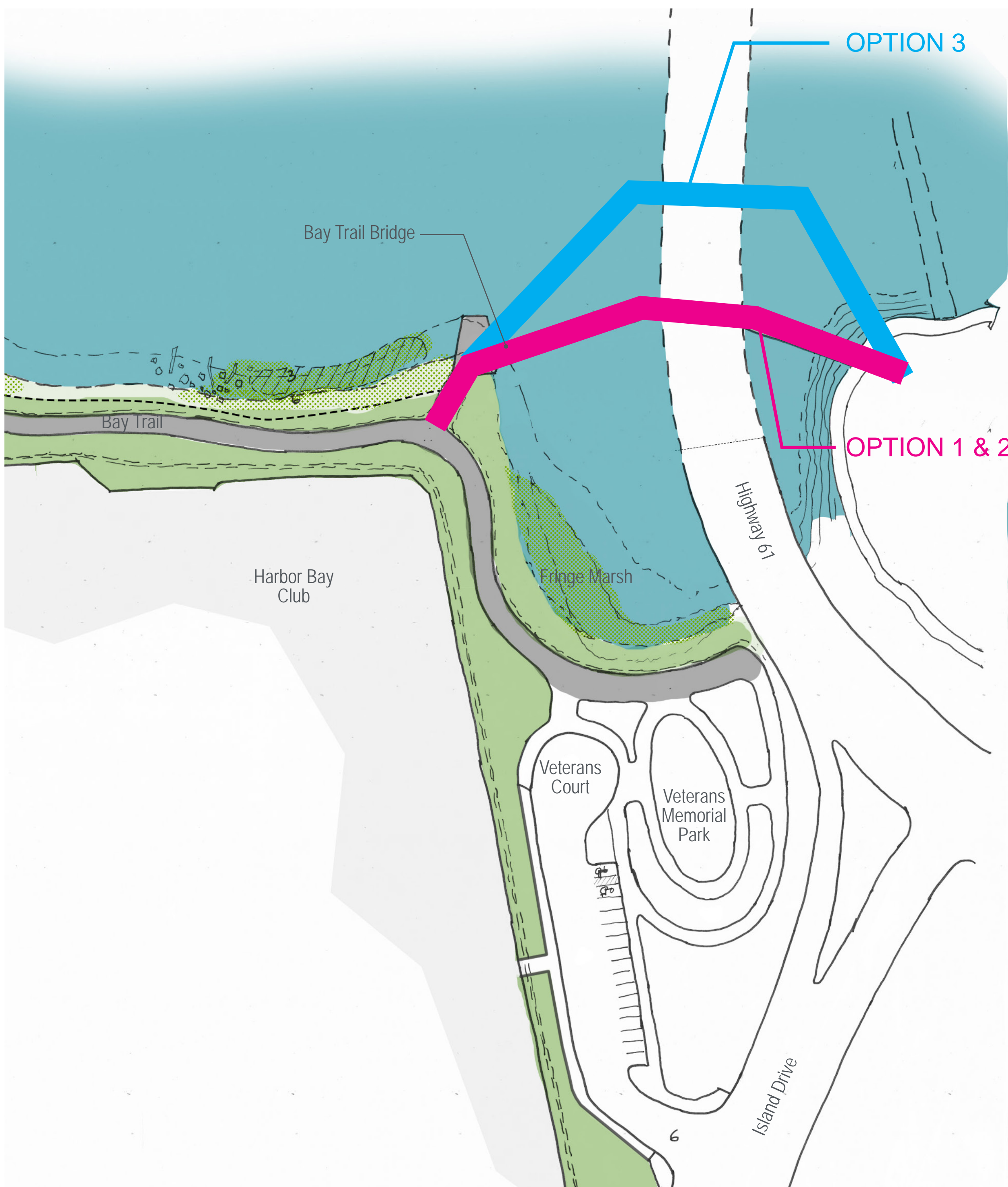


# BAY FARM ISLAND BAY TRAIL BRIDGE

Oakland Alameda Adaptation Committee (OAAC ADAPT)

## BAY TRAIL BRIDGE - POTENTIAL LONG-TERM ADAPTATION MEASURES

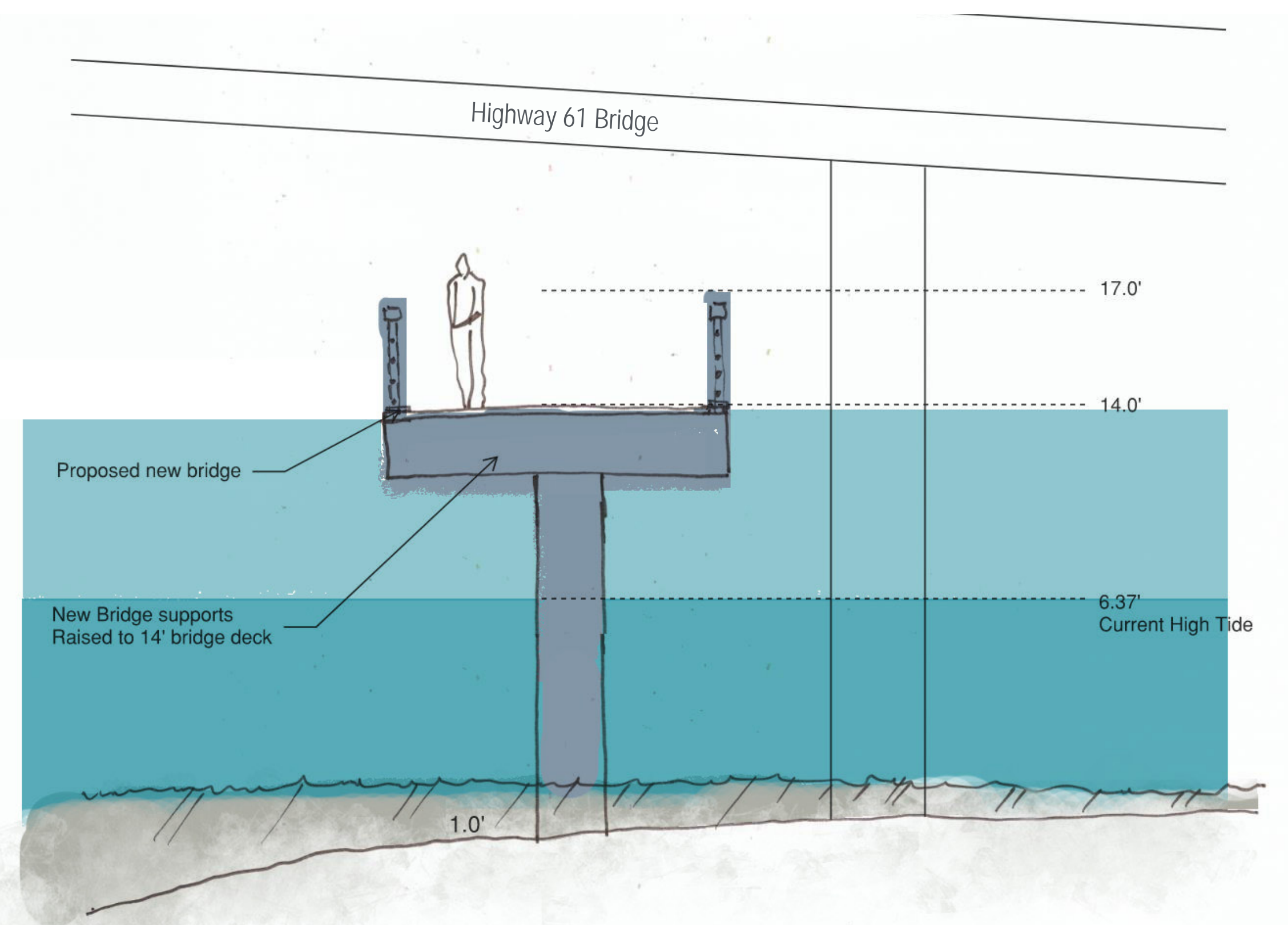
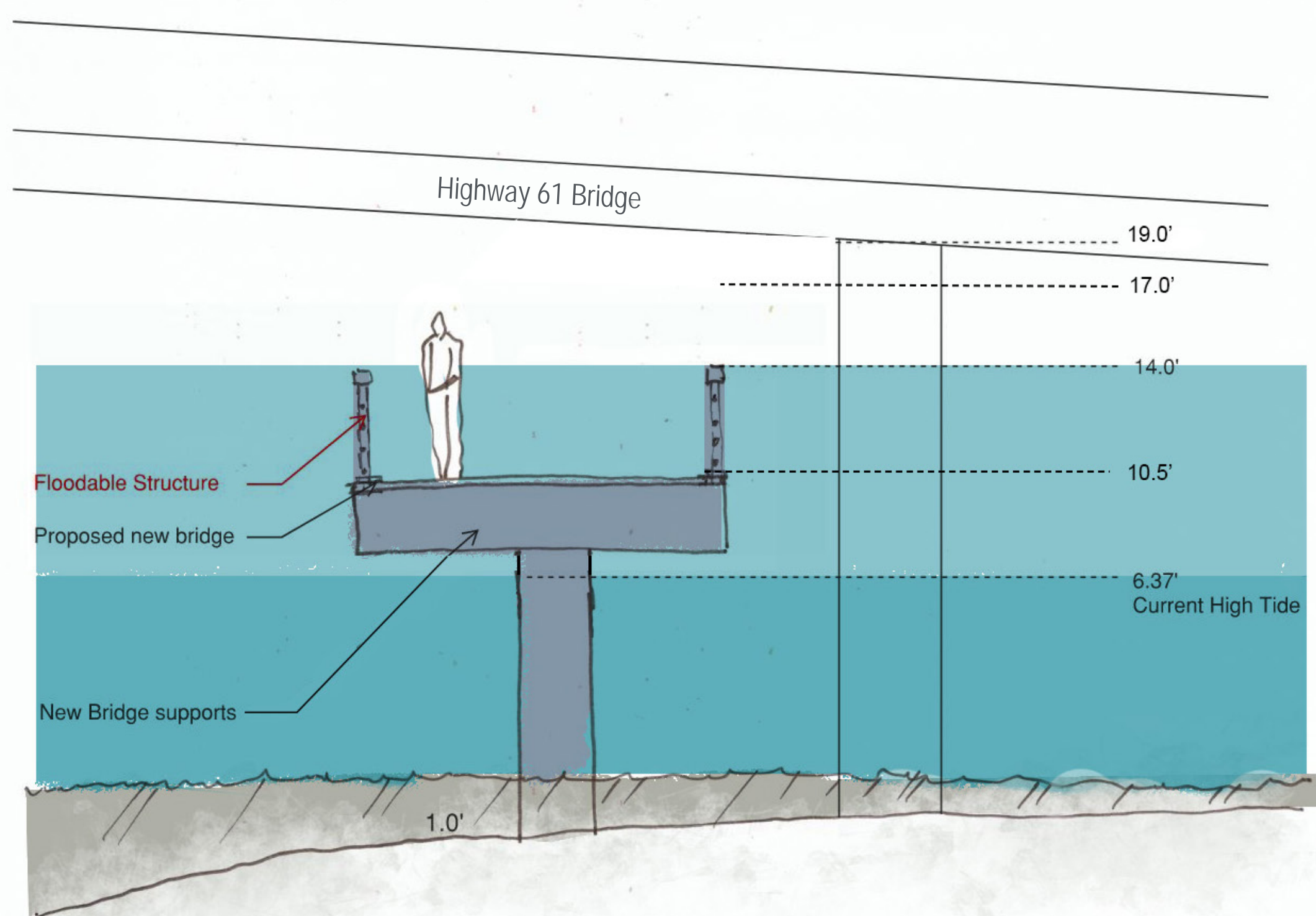
The existing pedestrian and bike Bay Trail bridge at Veterans Court is at the approximate elevation of 9.5' with a head clear height of 9.5' minimum. To address sea level rise, there are 3 options that are being considered as part of long term project: floodproof, floodable, and relocated.



Precedent images of a floodproof bike and pedestrian bridge.

### Option 1 - Floodproof Bridge (Bridge Deck at 10'-10.5')

Maintain existing bridge alignment with a new bridge with floodproof guardrails that prevent sea water from flooding the bridge up to elevation 14'.



Precedent images of a floodable bike and pedestrian bridge



Precedent images of a new bike and pedestrian bridge.

### Option 2 - Floodable Bridge (Bridge Deck at 10'-10.5')

Maintain existing bridge alignment with a new bridge that can be submerged by occasional elevated tides, that would return to levels below bridge deck. When sea levels are more regularly above elevation 10' - 10.5', this bridge would need to be replaced.

### Option 3 - Relocated Bridge (Bridge Deck at 14'-14.5')

Establish a new bridge alignment with greater head clear height under Highway 61 vehicular bridge. New bridge with deck at elevation 14', or greater, setting it above flood levels.