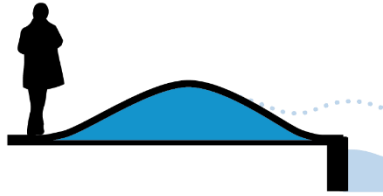


# Raised Pathway

## Flood Adaptation Measure



### PHYSICAL INFRASTRUCTURE



Riverside path at night – London, UK © Stockinasia/Alamy Stock Photo

### SHORELINE LOCATION:



<b>DESIGN LIFE</b> 75+ years	<b>ADAPTABILITY</b> Varies	<b>IMPACT ON THE WATERFRONT</b> Major Intervention	<b>CONSTRUCTION COST</b> TBD
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### COASTAL FLOOD HAZARDS MITIGATED:



MEASURES COMPATIBILITY:		ECOSYSTEM SERVICES: Measure may affect these shoreline values			
Flood	Seismic	—	—	—	—
Structure Elevation, Floodproofing, Raised Structures	Landside Buttress, Drilled Shafts, Super Bulkhead Wharf	Aquatic Habitat	Terrestrial Habitat	Water Quality	Carbon Storage
		—	—	—	↓

### DESCRIPTION:

Elevates portions of pedestrians walkways near the shoreline, including the Embarcadero promenade. An elevated pedestrian walkway would provide a physical barrier to flood water. The elevated land can reduce the risk of frequent flooding and storm surge events.

### CONSIDERATIONS:

- Best suited for large redevelopments.
- Challenging to retrofit existing conditions.

### ADVANTAGES:

- Effectively reduces risk from frequent inundation and surge events.
- Opportunity to improve subsurface utilities and infrastructure.

### DISADVANTAGES:

- Initially costly and potentially disruptive.
- Significant engineering and design issues likely due to developed nature of Embarcadero and underground utilities.

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<p><b>CONSTRUCTION IMPACTS TO THE PUBLIC:</b></p> <ul style="list-style-type: none"> <li>The extent of the construction would depend on the extent of the design, but given the urban nature of the Embarcadero, and proximity to infrastructure, and construction conditions at this location, the impact and extent of this type of measure would be significant.</li> </ul>	<p><b>SEA LEVEL RISE ADAPTATION OPPORTUNITIES:</b></p> <ul style="list-style-type: none"> <li>Once installed, this measure would not be adaptable to various levels without retrofitting or coordination with other measures, such as raised barriers and raised features.</li> </ul>	<p><b>CASE STUDIES:</b></p> <ul style="list-style-type: none"> <li>London Thames River, UK</li> </ul>
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**DESIGN OPPORTUNITIES:**

<p><b>Ecological Enhancements</b></p> <ul style="list-style-type: none"> <li>TBD</li> </ul>	<p><b>Urban Design</b></p> <ul style="list-style-type: none"> <li>Design of pathways can provide new opportunities for experiencing the waterfront</li> </ul>	<p><b>Form</b></p> <ul style="list-style-type: none"> <li>TBD</li> </ul>
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**DESIGN CONSIDERATIONS:**

- Best suited for large areas or a large-scale redevelopment and/or infrastructure project. It would have significant challenges retrofitting existing underground infrastructure, but also allows for opportunities to improve subsurface utilities and infrastructure. Drainage of any elevated sites would need to be engineered and impacts on adjacent lower elevation areas would need to be mitigated.

**SITE-SPECIFIC CONSIDERATIONS:**

- N/A

**ARCHITECTURAL CONSIDERATIONS:**

- Must comply with the relevant codes and standards, and accessibility requirements and should not obstruct exit doors, stairs or ramps, and egress routes from buildings and public ways. Existing changes in level/grade and/or existing steps should be considered.

**HISTORICAL RESOURCE CONSIDERATIONS:**

- Should not obstruct access or views to historic structures and be compatible with the character of the structure.

**URBAN DESIGN CONSIDERATIONS:**

- Should minimize impacts on traffic flows and enhance pedestrian traffic

**INSTALLATION AND CONSTRUCTABILITY CONSIDERATIONS:**

- This measure would have high initial costs in terms of construction and disruption of urban activities.
- The measure would require significant construction and retrofitting.

**INSTALLATION AND CONSTRUCTABILITY CONSIDERATIONS:**

- Once constructed, would require virtually no ongoing maintenance costs.