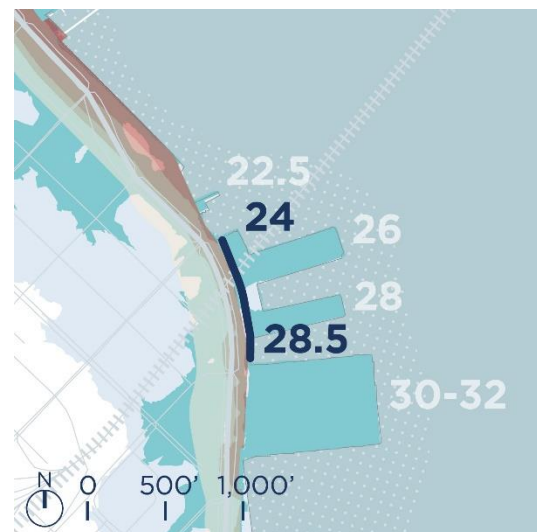


# Pier 24 To Pier 28-1/2 Bulkhead Wall and Wharf Substructure Earthquake Safety Retrofit Project



## About the Project

The bulkheads located between Pier 24 and Pier 28 ½ are some of the oldest on the waterfront. They support a portion of the Embarcadero Promenade and the remaining mission-style pier buildings. The Port’s Multi-Hazard Risk Assessment determined the rock dike portion of the Seawall here to be more stable in earthquakes than other areas. However, there is very high earthquake risk to the tall bulkhead wall and wharves because of the way they are connected. Sea level rise flooding is an emerging risk, though the bulkheads here are somewhat higher. This project focuses on improving earthquake safety by retrofitting the most vulnerable portions of the wall and wharf substructures. These efforts are expected to be interim safety improvements while a more permanent solution to sea level rise is developed and implemented.

Project Benefits	Project Details	Responds to Community Feedback
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Earthquake Safety</li> <li><input type="checkbox"/> Disaster Response Improvement</li> <li><input type="checkbox"/> Coastal Flood Defense</li> <li><input type="checkbox"/> Public Space Enhancement</li> <li><input checked="" type="checkbox"/> Historic Preservation</li> <li><input type="checkbox"/> Bay Habitat</li> </ul>	<p>Status: Pre-Design</p> <p>Cost: \$5M to \$25M</p> <p>Duration: 2 to 4 years</p> <p>Complexity: Low</p> <p><i>*cost &amp; duration are planning level estimates and include all costs</i></p>	<ul style="list-style-type: none"> <li>✓ <b>Prioritizes</b> life safety and emergency response.</li> <li>✓ <b>Protects</b> and preserves historic and maritime resources.</li> <li>✓ <b>Ensures</b> public access to the waterfront and historic places and an inviting waterfront for all.</li> <li>✓ <b>Supports</b> an adaptable and equitable waterfront.</li> </ul>