

# Pier 15 Bulkhead Wall and Wharf Substructure Earthquake Safety Retrofit Project



## About the Project

Pier 15 is a rehabilitated and seismically strengthened historic finger pier that is home to the popular Exploratorium science museum as well as small and medium-sized vessel berths that can support earthquake response. Most of the pier and shed have low earthquake risk, however, earthquake movement of the Seawall is expected to damage the bulkhead wall and wharf compromising safety in the supported historic building and along the Promenade and adjacent open spaces. The Pier 15 Bulkhead Wall and Wharf Substructure Earthquake Safety Retrofit Project focuses on more easily implementable solutions to improve safety by retrofitting the wharf substructure and utilities to better move with the Seawall. Because of thick Bay Muds, improvements to stabilize the Embarcadero Seawall in this area are challenging, very expensive, and better incorporated as part of a longer-term shoreline adaptation project that includes flood defenses and adaptability against future sea level rise.

Project Benefits	Project Details	Responds to Community Feedback
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Earthquake Safety</li> <li><input checked="" type="checkbox"/> Disaster Response Improvement</li> <li><input type="checkbox"/> Coastal Flood Defense</li> <li><input type="checkbox"/> Public Space Enhancement</li> <li><input type="checkbox"/> Historic Preservation</li> <li><input type="checkbox"/> Bay Habitat</li> </ul>	<p>Status: Pre-Design</p> <p>Cost: \$5M to \$15M*</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>Supports</b> an adaptable and equitable waterfront.</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> </ul>