

ORE 783B Coastal Engineering Presentation

Capstone Design Project:

Pokai Bay Shoreline Improvements

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3:00-4:00 pm Seminar

Abstract

Pokai Bay is located on the leeward side of the island of Oahu between Makaha to the north and Maili to the south. The shoreline consists of a jetty to the north end and a breakwater to the south end of the beach with two groins in between which divide the beach into three littoral cells. Water quality in the lee of the breakwater has been reportedly poor and a concern to beach goers. The existing groins and breakwater have experienced moderate to light damage and the two northern littoral cell shorelines have experienced, on average, erosion since 1967 causing the shoreline to recede. Fronting the shoreline to the north is a seawall which fronts the Pililau Army Recreational Center (PARC). This seawall has recently experienced severe damage/failure due to the beach erosion causing undermining of the structure. This seminar will summarize a potential design to improve the shoreline at Pokai Bay by addressing the issues being faced there. All aspects of the design process including coastal assessment, option alternatives, and final preliminary design of the selected alternative will be presented including cost and permitting considerations.

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