

**Project Name**

UH Hilo University Park - Infrastructure Improvements, Phase IIA,  
Hilo, Hawaii

**Client / Owner**

University of Hawaii, Hilo Campus

**Year Completed**

2002

**Project Description & Firm's Responsibility**

This project involved the expansion of the University of Hawaii Hilo Campus and consists of a 116-acre research and technology park, student housing, and academic-related facilities. Preliminary engineering studies were conducted in Phase I to determine infrastructure requirements for this development. Work included the preparation of an environmental impact statement addressing the construction of new roadways connecting the University Park to the existing campus, including a bridge across Waiakea Stream, stream channel modifications, and water and sewer system improvements.

Construction plans, specifications, and cost estimates were prepared for the new roadway and related road work, including the widening of Kawili Street to provide a left turn storage lane and widening of an existing campus road. Work also included extension of a 12-inch water main to the existing campus to improve fire protection capability and to provide a second water supply main across the stream for reliability. Applications for various federal and state environmental permits were also prepared for the stream channel modifications.

A critical cost item was the bridge across Waiakea Stream. The Flood Insurance Rate Map showed a floodway width of about 200 feet, which would result in a bridge length of over 200 feet with support columns and foundation midspan within the stream. A Conditional Letter of Map Revision (CLOMR) was requested from FEMA because the floodway did not accurately reflect existing conditions and stream channel modifications would cut the bridge length in half, which would also eliminate the midspan columns in the stream. As a result of an extensive stream hydraulic and floodway analysis/study, the CLOMR application was approved, saving the State about \$1,000,000.