HONOLULU HIGH CAPACITY TRANSIT CORRIDOR PROJECT

SURVEYED PROPERTY CONSIDERED ELIGIBLE FOR NATIONAL REGISTER

TMK: **none**

Historic Status: **Evaluated Eligible**

Portion of Alignment: **'Ewa portion**

Resource Name/Historic Name: **Waikele Stream Bridge east-bound span and Bridge over OR&L spur**

Sector: **10 Waipahu Transit Center Station Sector**

Location: **Farrington Highway at Waikele Stream**

Station Block:

Owner: **State of Hawaii**

Date-Original: **1939**

Source: **Thompson, 1983. *Historic Bridge Inventory, Island of Oahu.***

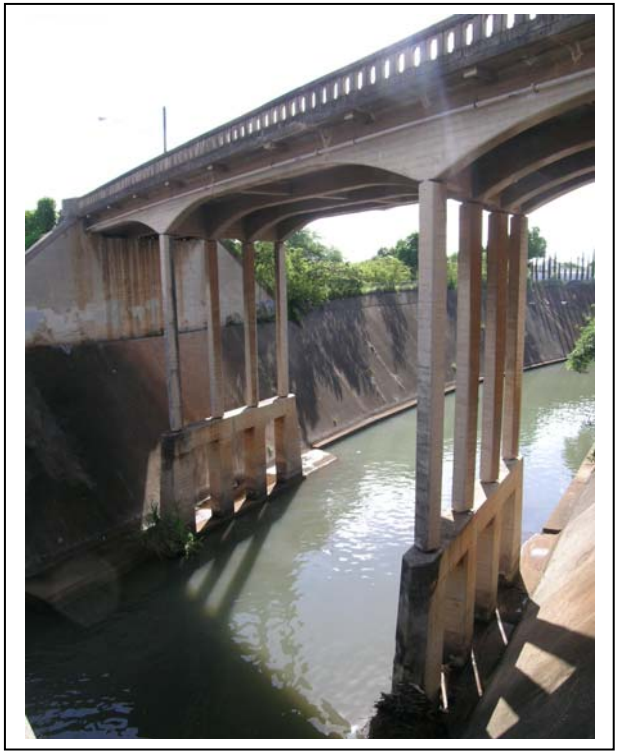
Present Use/Historic Use: **Bridge**

Architectural Description:

Both are concrete deck girder bridges. The one over the stream has three spans with a combined length of about 130'. At the ends of the bridge the spans are supported on board-formed concrete abutments. Two rows of four slender concrete columns carry the spans across Waikele Stream. The bridge girders become thicker as they approach the columns, increasing to about 3' in height where they rest on the columns. The columns are about 30' tall with a cross section of about 16" square. Each row of four columns rests on a narrow beam (about 10' above the channel bed) supported by four wider posts (the outer ones have slightly widening ends) which rise from the stream bed at its concrete-lined banks. The concrete parapets of the bridge are pierced to form balustrades with vertically oriented openings in the form of a thick cross (commonly referred to as a "Greek-cross void"), which was a standardized pattern in that period of Territorial Highway Department bridges.

Integrity:

Bridges have high integrity. Parapets, girders, columns, and piers are unaltered.



Significance:

Criterion "A" for its association with the development of the Waipahu community and the transportation history of the area. Criterion "C" as an example of concrete bridge engineering and design in Hawaii. These bridges are good examples of concrete deck girder bridges of the late 1930s period. Originally, Waikele Stream ran eastward from a point mauka of the bridge and joined Kapakahi Stream before emptying into Pearl Harbor. This natural drainage pattern created frequent flooding in the Waipahu business district, centered around Waipahu Depot Road. In the 1930s the present drainageway that the bridge spans was cut to drain Waikele Stream directly into the harbor (the stream was lined with concrete at a later date). The excavated material became a ramp for the future Farrington Highway, and also allowed the grade separation over the OR&L right-of-way, just east of Waikele Stream. These bridges are associated with several important community improvement projects, the stream realignment and the construction of Farrington Highway, which greatly affected the history of Waipahu. (Source: *Waipahu: Its People and Heritage* 1997, p. 9-11.)