



February 6, 2007  
W.O. 3917-50

Mr. Eugene Lee, P.E., Director  
c/o Mr. Michael Yamasaki  
City & County of Honolulu  
Department of Design & Construction  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, HI 96813

**PROGRESS REPORT NO. 12  
PHASE III – ADDITIONAL INSTRUMENT MONITORING  
KUAHEA STREET AREA MOVEMENT  
PROJECT NO. 97504  
PALOLO, OAHU, HAWAII**

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Dear **Mr. Yamasaki:**

This twelfth progress report is presented to summarize our work efforts and the results of the additional field instrumentation monitoring conducted for the Kuahea Street Area Movement project in Palolo Valley on the Island of Oahu, Hawaii. The approximate project location is shown on the Project Location Map, Plate 1.

Our work was performed in general accordance with our fee proposal dated October 15, 2004 and Amendment No. 5 for Engineering Services for the Kuahea Street Area Movement Project, Contract No. F-60578, CIP No. 97504.

This progress report provides summary information for the results of our monitoring of earth movements and subsurface water levels (Phase III - Instrument Monitoring). Our report summarizes the field data and observations that were collected during three scheduled sets of monitoring visits performed over a six-month monitoring period. This report is our second semi-annual progress report covering the twelve-month instrument-monitoring period, which officially commenced in August 2005 and expired in July 2006. The three instrumentation-monitoring visits were conducted as follows:

- March 6 and 7, 2006
- May 10 and 11, 2006
- July 17 and 24, 2006

It should be noted that an extra instrument monitoring visit was conducted on April 13, 2006 to record data at Inclinator Nos. I-5, I-9, I-13, and I-14 along Kuahea Street. The extra monitoring visit was performed following an extended period of heavy rainfall that had accelerated the earth movements in the area. The purpose for the extra monitoring visit was to record data from selected inclinometers following the heavy rainfall and accelerated earth movements.