

Location: Honolulu, HI

Owner: Army Hawaii Family Housing

*"KASL is absolutely on the leading edge from a technical standpoint; it's impressive. This makes things easier to provide from a distance. It makes it easier and quicker to deliver a solution, and they have a lot of experience to back them up."*

*David Gray, VP Design and Construction  
Actus Lend Lease, Honolulu, HI*

The Aliamanu Military Reservation (AMR) is home to over 1,400 Army soldiers and their families. The majority of these homes are situated in the interior bowl of an ancient volcano floor that is close to 300 acres in size.

The Army initiated a project to reconfigure the residential neighborhood layouts and street grids and to replace all of the existing housing units in the AMR with new homes. KASL Consulting Engineers were retained to evaluate existing utilities, roads and other site infrastructure and to design the site improvements for five residential neighborhoods to accommodate 950 new housing units located on a combined 185 acres.

Services provided by KASL Consulting Engineers for each of the five neighborhoods located within the AMR included:

- evaluation and computer modeling of the entire crater storm drain system to establish 100-year flood plain elevations
- design for demolition of over 1,300 family housing units and related improvements
- design of mass grading to balance cut and fill of close to 250,000 cubic yards of material
- fine grading design to protect improvements and to prevent erosion
- design of retaining walls
- design of over 7 miles of new roadways
- computer modeling and design of new utility distribution and collection systems including water, sewer and storm drain systems
- site design for ADA compliant sidewalks, children's play areas, play courts, bicycle pathways and jogging trails
- surveying services to locate and protect existing trees and other improvements
- preparation of Storm Water Pollution Prevention Plans (SWPPP) and obtained National Pollutant Discharge Elimination System (NPDES) permits from the State of Hawaii Department of Health Clean Water Branch
- sustainability features of the project included the crushing and reutilization of all concrete slabs, footings, driveways and asphalt roadways



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