

Forces of Nature

Challenge Construction Crews

Kiewit Pacific Builds the Temporary Waimea Bay

Building a road on a beach is no easy task.

Part of Kamehameha Highway near Waimea Bay was damaged by a rock slide on March 6. Kiewit Pacific Co. was faced with quite a challenge when the firm was hired to construct a temporary route that would run across the beach.

According to Lance Wilhelm, Kiewit's project manager for the Waimea Bay job, the road "is made of composite plastic webbing kind of material. The matrix is filled with sand and it's the same width as the road." He added that the matrix is coral-based, not cement-based.

And what about the beach? "The beach is open," Wilhelm said. "We were careful not to use asphalt. We didn't use anything except native sand in the webbing. Anything that we put in, we can get out." For example, Wilhelm explained that the steel pins which were used for the road can be removed.

Kiewit began constructing the thoroughfare on March 11. Wilhelm could not divulge the amount of contract. He praised the Kiewit employees who worked on the project.

"Kudos go to the guys who worked so hard. We had to put in a lot of time," the project manager said. He added that the employees sometimes had to work 12-hour shifts, but they completed the job.

The road could still be affected by forces of nature. On March 23, surf of up to 15 feet was expected at the bay, and the water could

have damaged the road. "The concern is that the base rock could become saturated," Wilhelm noted. "A bigger concern is erosion. (The water) could undermine the structural part of the matrix."

As of the morning of March 24, the surf had done no damage to the road. The problems weren't over, however, because on March 31 the rain-swollen Waimea River washed out an entire section of the thoroughfare. Crews worked around the clock, and the road was opened again on April 5.

"We added additional culvert to increase the drainage capacity,"

Wilhelm explained. "We installed water barriers, GEOWEB material and more of the coral base. We need to get down the backlog of water behind the road. Hopefully, if we start pumping soon enough, we can manage the water level."

The cost of the reconstruction effort is uncertain. According to Wilhelm, the figures are still being totaled. "We bought additional culvert and coral, but not that much."

As for the road, Wilhelm reported, "It's back to where it was before. The capacity is the same."

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Structural Systems Inc. provided the GEOWEB material for the temporary Waimea Bay road. The contractor is Kiewit Pacific Co.