

Demolitions Clear the Way for Fleet Readiness & Quality of Life at Pearl Harbor

Meeting Reduction Goals Involves More than Just Sending in the Wrecking Ball

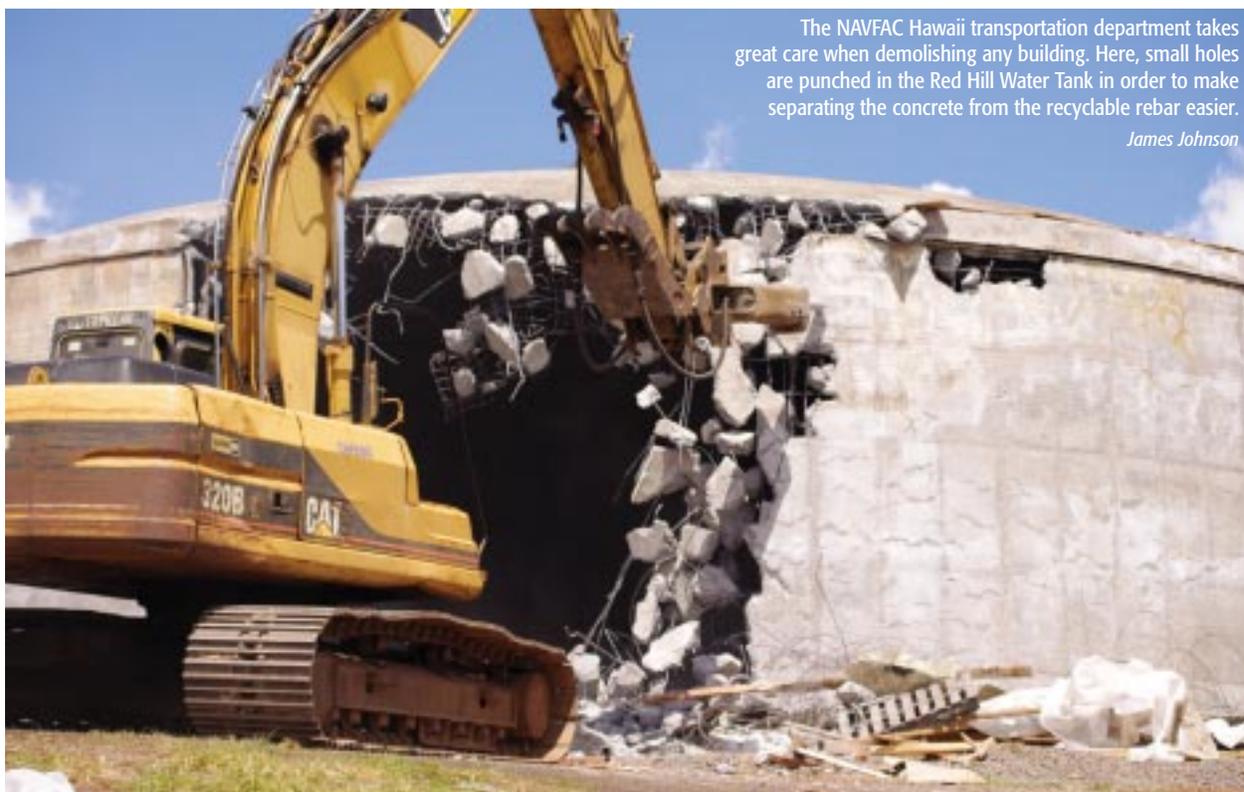
AT THE CONTROLS of a large excavator, outfitted with a “hole-ram” jack-hammer, Naval Facilities Engineering Command (NAVFAC) Hawaii transportation department equipment operator Dean Johnsen, carefully punches holes in the Red Hill Water Tank. The tank, constructed with concrete, and held

together with a web of rebar, doesn't look like it should take so much effort to knock down. However, as is the case with all demolitions performed by the Navy at Pearl Harbor, there's more to it than meets the eye.

“We always take a great deal of pride in our work when taking down a

structure,” said Gary Collins who works in the NAVFAC Hawaii transportation department. “It is exciting and satisfying, especially when the building is very well built and a challenge to demolish correctly.”

The elaborate preparatory work and careful demolitions are carried out



The NAVFAC Hawaii transportation department takes great care when demolishing any building. Here, small holes are punched in the Red Hill Water Tank in order to make separating the concrete from the recyclable rebar easier.

James Johnson

The Banyans, made of concrete, metal trusses and rebar, being disassembled by NAVFAC Hawaii Transportation personnel. The effort took many days due to the construction materials of the building.

Denise Emsley



under the Navy's Demolition Footprint Reduction Program, which has been in effect since 1998 and is a high priority in Hawaii. The goal is to reduce infrastructure inventory by 20 percent as part of the Navy Shore Vision 2035—a long term effort to revamp Navy infrastructure.

"It's an ambitious goal," said NAVFAC Hawaii Public Works Department Head, Cmdr. Lore Aguayo. "We have a couple of ways to reduce infrastructure, the first is to demolish a facility and not build anything in its place, or build a facility that makes it possible to consolidate several other buildings, which can then be torn down."

Reducing infrastructure saves the Navy money. Old facilities use more resources like water and electricity than their newer counterparts because they were not built to the energy efficiency and sustainability standards in use today. Older facilities also cost more to maintain. Every year, these

buildings drain limited resources which could be better used elsewhere.

Building 193, formerly used by the Family Services Center, was demolished in 2008. The Navy estimates that the removal will save \$150,500 in building maintenance costs each

year. These savings will help recapitalize infrastructure and other needs.

The Banyans (Building 1247), a former Navy Officers' Club which was also used as a conference center, reached the end of its useful life in 2008 and has since been replaced by



Prior to demolition, an old, wooden two-story structure (Building 193) located on base at Pearl Harbor housed the Navy's Family Service Center. The Center moved into a new building adjacent to the renovated Moanalua Shopping Center, providing a clean, fresh and pleasant environment where military personnel and their family members can visit without entering the base.

Denise Emsley



NAVFAC Hawaii's remediation crew prepares most Navy structures scheduled for demolition in Hawaii. They remove asbestos tile, lead-based paint and any other items that would be harmful to the environment or public health.

Denise Emsley

a new, state of the art conference center on Ford Island, saving the Navy \$342,000 in building sustainment costs each year.

As Navy missions and programs evolve, old facilities sometimes find themselves in less than ideal locations. Therefore, when a building is torn down, it is not always replaced by a new facility built in the same space. That is what happened with both the Family Services Center and The Banyans. New buildings to fit those needs have been built in locations better suited for their current uses, which allows the old lots to remain vacant. Those areas are either paved

or landscaped, whichever makes best use of the newly acquired space.

Demolishing a building is not as straightforward as sending in the bulldozer or wrecking ball. The Navy recognizes the need to be good stewards of the environment and preserve historically important buildings.

Environmental Considerations

Some existing Navy facilities in Hawaii were built at a time when strict environmental regulations were not in place. For example, NAVFAC Hawaii Environmental Services extensively tested the Red Hill Water Tank

to ensure that the concrete did not contain levels of asbestos that could be released into the air and soil in the surrounding area during demolition. Many of the buildings removed under the Navy's Demolition Footprint Reduction Plan were built in the 1940s and 1950s. Along with asbestos, some of these structures were built with lead paint, wood treated with arsenic and other environmentally hazardous materials.

"We understand that we have tighter environmental regulations now, compared to 50 years ago," said Francisco Pena, a supervisory environmental protection specialist at NAVFAC Hawaii. "So, when demolishing a building, we take great care to follow all the rules to ensure environmental protection and public safety."

For each demolition project, NAVFAC Hawaii conducts an environmental evaluation and works with other federal, state and local environmental agencies when appropriate. Non-hazardous materials left over from a demolition site, such as certain types of metals and wood products are recycled. Materials that cannot be recycled are sent to landfill facilities. That is why NAVFAC Hawaii equipment operator Johnasen at the Red Hill Water Tank demolition project took so much care to punch small holes into the concrete. Doing so makes the concrete easier to separate from the recyclable rebar. The process of sending the concrete to a landfill also becomes more efficient.

Preserving Pearl Harbor's History

"[We have] a great amount of the same infrastructure that we had in World War II," said Vice Adm. Robert T. Conway Jr., former commander, Navy Installations

Command, in a July 2008 *Seapower* magazine interview. “Why do we have all this stuff? Over the years, we’ve kept so much stuff that it’s not affordable anymore. If the single

demolition, the Navy works diligently with groups like the State Historic Preservation Division, and makes recommendations in conjunction with the State Historic Preservation Officer.

they have become less usable for that purpose, and are ideal candidates for the Navy’s Demolition Footprint Reduction Program. However, the warehouses have historically impor-

Demolishing a building is not as straightforward as sending in the bulldozer or wrecking ball. The Navy recognizes the need to be good stewards of the environment and preserve historically important buildings.

Sailor or the family is being impacted, or worse yet, the warfighting capabilities, it makes sense that we transform ourselves.”

Despite cost savings and the need to modernize shore infrastructure, the decision to demolish a building can be very difficult because it may have special historical significance. At Pearl Harbor, many structures date back to World War II or earlier. These buildings reflect the architecture and building methods of their time, and often are not adequate for today’s purposes. When considering an older building for

“In some cases, considerations involve trade-offs,” says Aguayo. “The Navy does not have the funds to maintain all its historic buildings, but the cost-savings of reducing the number of old structures can be used to improve the conditions of buildings with the most historic value.”

Three storage warehouse buildings along Pearl Harbor’s M4 pier, which date back to the World War II era, are a prime example.

The facilities were built to be used as warehouses for pier work. Over time,

tant architectural elements which can be beneficial to preserve.

In this situation, the Navy has decided to retain one of the buildings, and remove the other two. Before demolition, elements such as doorframes and windows, will be removed from the two buildings, and used to refurbish the remaining warehouse. As part of its restoration, the Navy plans modern upgrades to the remaining facility as well, such as energy efficient lighting components. This will save money and allow the Navy to use the warehouse for its original purpose.

As Navy installations such as those in Hawaii move forward and modernize, change is inevitable. Personnel involved in the Navy’s Demolition Footprint Reduction Program remain responsive not only to Department of Defense needs, but also to environmental regulations, historic preservation considerations and the quality of life at surrounding communities. ⚓

CONTACTS

Denise Emsley
Naval Facilities Engineering Command Hawaii
808-471-7300
denise.emsley@navy.mil

James Johnson
Naval Facilities Engineering Command Hawaii
808-471-7300
james.johnson13@navy.mil



From left to right, warehouse facilities 148, 147 and 146 along Piers M4 and M3 are a part of the Navy at Pearl Harbor’s Footprint Reduction Program. Buildings 147 and 146 are scheduled to be torn down in the near future, while 148 is being renovated.

James Johnson