

FRED CONE
(ITEM "d")

PWO:10:REC:arc
11000
18 June 1982

From: Public Works Officer
To: Assistant Chief of Staff, Facilities

Subj: Unaccompanied Enlisted Personnel Housing (UEPH)

Ref: (a) CG 2dMarDiv, FMF ltr 4/DGA/rmd, 11000 dtd May 7 1982
w/Fac bkslip dtd 11 Jun 1982

1. Your buckslip requested comments on the reference attached thereto. Accordingly, the following is submitted:

a. Problem: Center-wall water pipes break on regular basis.

Comment: Except for some Quality Control problems experienced on the two BEQs constructed in Area 5, neither Base Maintenance nor this office has any knowledge of continuing plumbing problems.

b. Problem: Loss of master key creates a situation where either all locks must be replaced at an exorbitant cost or individual tenants are vulnerable to theft.

Present Situation: The most recent UEPH projects have installed lock cylinders with removable cores. If the requirement arises for keys to be changed, the cores are removed by a special control key and replaced with new cores. Replacing only the cylinder cores greatly reduces both the key replacement costs and replacement time. The UEPH's presently under construction and all future projects will also provide removable core locking hardware.

c. Problem: The current railings are inadequate for meeting stresses/wear imposed by UEPH occupants.

Present Situation: BEQ Project P-613 (two BEQ's in Area 1 and three at Courthouse Bay) provided a redesigned railing which is far more substantial than the railings installed on BEQ's constructed prior to P-613. The new railings are of a thicker gage aluminum, are welded all around as opposed to the snap-together railings previously provided, and provide an intermediate horizontal brace for additional axial support. To date, the newly designed railings show no apparent damage after seven months of troop occupation. Their performance, however, will be monitored and the future designs adjusted if warranted.

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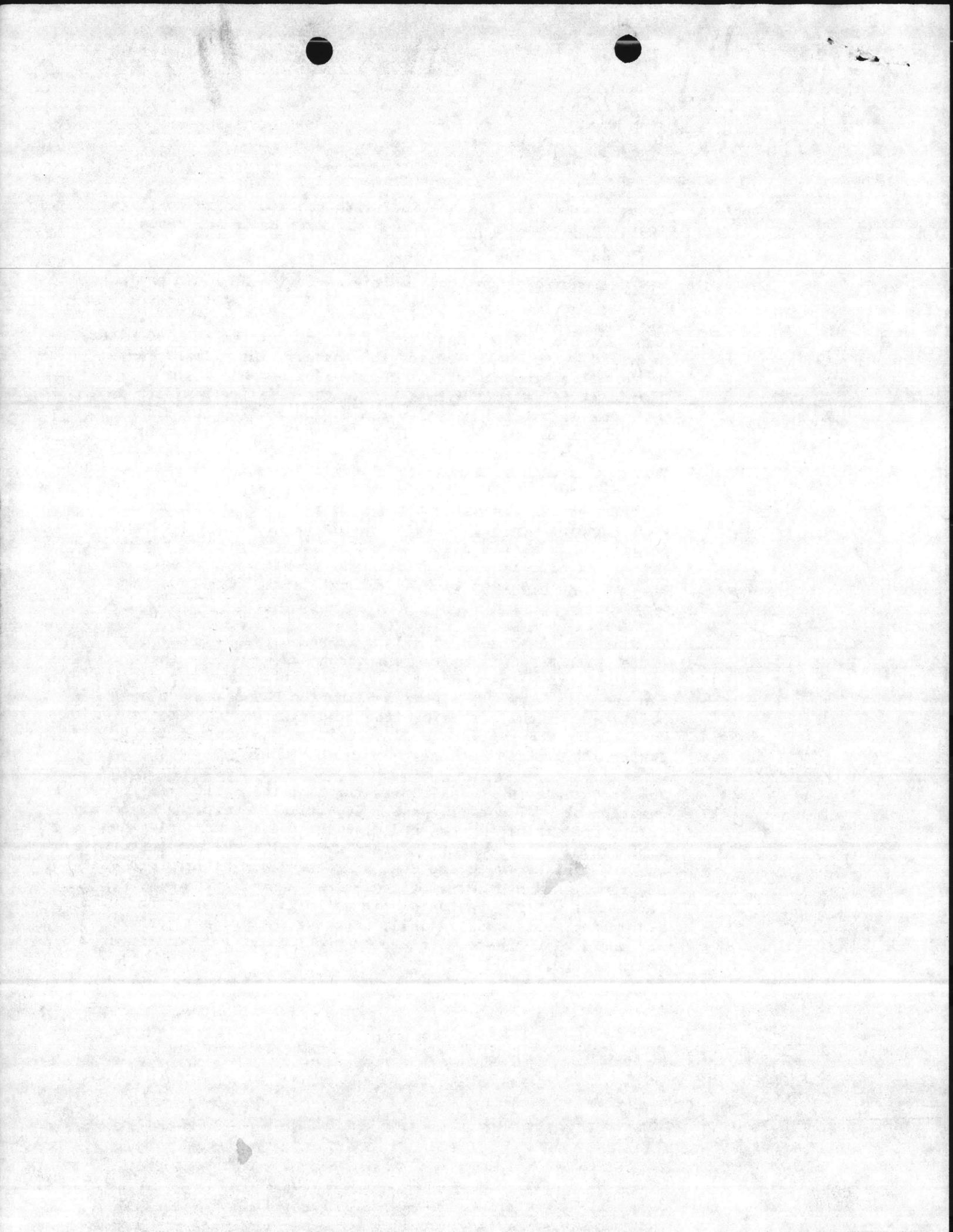
- d. Problem: Inadequate ventilation combined with textured walls/ceilings creates a situation where mildew/odors in heads and rooms develops and is difficult to remove.

Discussion and Present Solution: All multi-use-design BEQ/UEPH projects prior to MILCON Project P-611 (Area 2 UEPH's under construction) provided individual fan coil units (FCU's) in each sleeping room. In the cooling mode, the FCU's circulated chilled water on demand by the wall mounted thermostat. The primary cause of the mildew growth is that the cooling demand of the thermostat is satisfied long before the relative humidity in the rooms is sufficiently lowered by the cooling coil to prevent mildew growth. The HVAC system being provided by P-611 has been completely redesigned to provide a forced air HVAC system with terminal air blenders installed in each sleeping room. Upon demand by the thermostat, the air blenders modulate available hot/cold air from the supply plenum and return air back to the air handlers via a return plenum. This system allows constant air changing in the rooms and should alleviate the mildew/odor problem. Each bathroom area is also provided with an exhaust fan to further remove odors.

To minimize the chance of mildew in the barracks presently fitted with Fan Coil Units, the occupants should be instructed to set the room thermostats to the lowest setting and set the fan speed to "Low". This will allow the FCU to remove more moisture from the air before the temperature requirements are satisfied. The system should be left to run constantly during all periods of high heat and humidity.

The recommendation to eliminate the textured ceiling is questionable. The ceilings are acoustically textured to both reduce undesirable echoes and give the rooms a more pleasing appearance. The concrete masonry unit walls are not textured but are finished with one coat of latex block filler, one coat of primer, and two coats of semi-gloss enamel. The only economical way to provide smooth walls is to plaster the CMU's. Plastering would substantially increase the project costs and would also create maintenance problems as the buildings begin to age.

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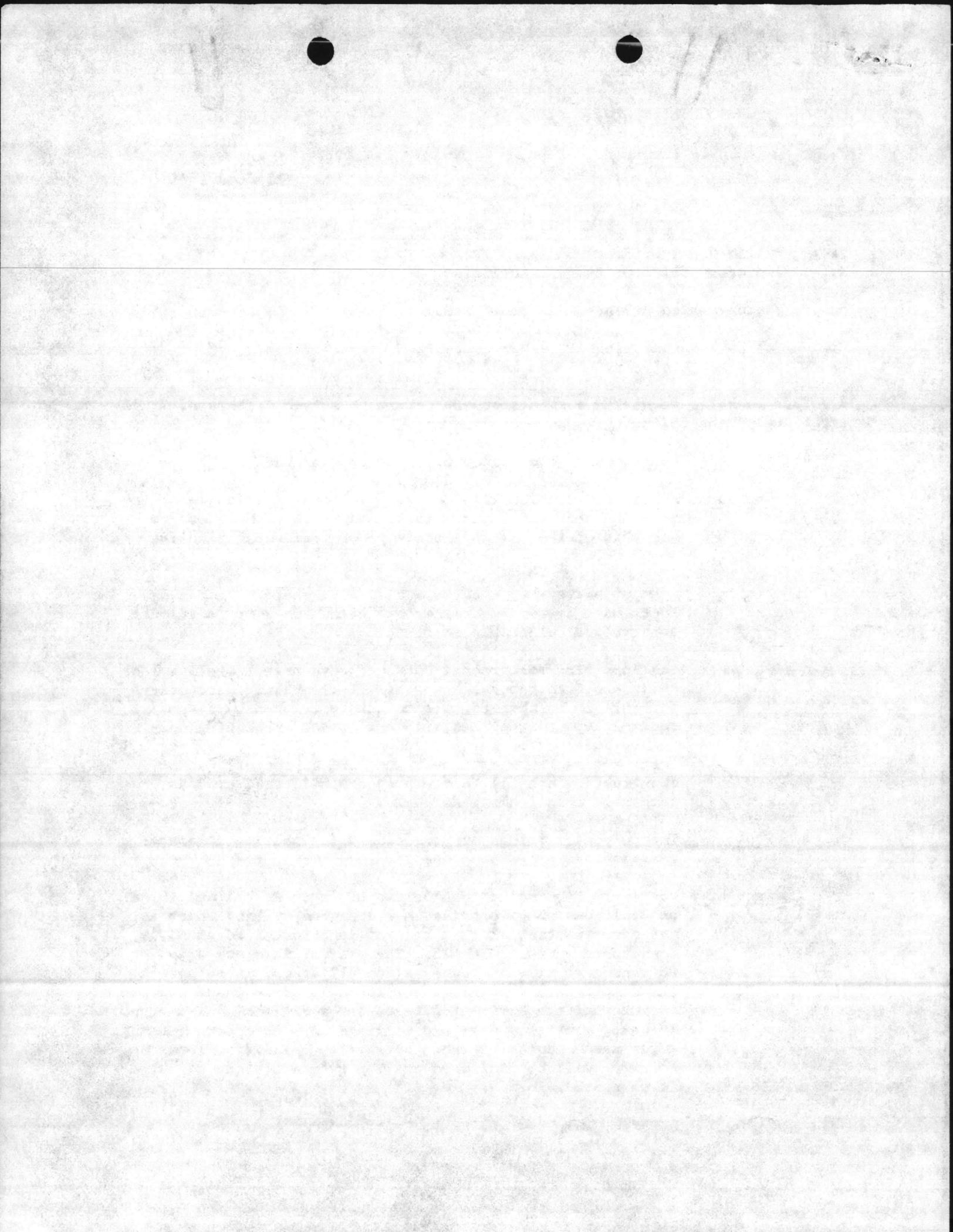
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c. Problem: The current railings are inadequate for meeting stresses/wear imposed by UEPH occupants.

Present Situation: BEQ Project P-6a3 (two BEQ's in Area 1 and three at Courthouse Bay) provided a redesigned railing which is far more substantial than the railings installed on BEQ's constructed prior to P-613. The new railings are of a thicker gage aluminum, are welded all around as opposed to the snap-together railings previously provided, and provide an intermediate horizontal brace for additional axial support. To date, the newly designed railings show no apparent damage after seven months of troop occupation. Their performance, however, will be monitored and the future designs adjusted if warranted.



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