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DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY SUPPORT COMMAND, HAWAII
FORT SHAFTER, HAWAII 96858-5000

ENVIRONMENTAL ASSESSMENT FOR DEFERRAL OF IMPROVEMENTS TO PAALAA-UKA-PUPUKEA ROAD AND ITS INTERSECTION WITH KAMEHEMEHA HIGHWAY IN ITS SUPPORT OF ARMY FAMILY HOUSING AT HELEMANO MILITARY RESERVATION CITY AND COUNTY OF HONOLULU, ISLAND OF OAHU, HAWAII

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ENVIRONMENTAL ASSESSMENT (EA)
FOR DEFERRAL OF IMPROVEMENTS TO PAALAA-UKA-PUPUKEA ROAD
AND ITS INTERSECTION WITH KAMEHAMEHA HIGHWAY
IN SUPPORT OF ARMY FAMILY HOUSING AT
HELEMANO MILITARY RESERVATION
CITY AND COUNTY OF HONLULU, ISLAND OF OAHU, HAWAII

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INTRODUCTION

This environmental assessment (EA) was prepared to comply with Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, and in accordance with the administrative procedures established by Army Regulation (AR) 200-2 which implements the Council of Environmental Quality (CEQ) Regulation at 40 Code of Federal Regulations (CFR) Parts 1500-1508.

AR 200-2 and the CEQ Regulations require the systematic examination of possible and probable environmental consequences of implementing a proposed action. The purpose of the EA is to examine these potential environmental consequences and to determine whether they are significant. AR 200-2 also requires that the governmental agencies with responsibility for various areas of environmental concern be involved to the extent practicable in the preparation of an EA.

A Final Environmental Impact Statement (FEIS) for Army Family Housing New Construction at Helemano Military Reservation (Helemano MR), City and County of Honolulu, Island of Oahu, Hawaii was filed with the U.S. Environmental Protection Agency on 16 December 1988 and the Record of Decision (ROD) approved on 20 March 1989.

This EA is tiered to the FEIS which is incorporated by reference into the EA. Tiering is a concept established in the CEQ regulations (40 CFR Part 1502.20, 1508.28, and AR 200-2, Para. 6.5(n)). Tiering refers to the coverage of general matters in broader Environmental Impact Statements with subsequent narrower statements or environmental analyses. Tiering is appropriate when it helps the decision maker to focus on the issues which are ripe for decision and exclude from consideration issues already decided or not yet ripe.

In the FEIS, a traffic assessment of the proposed project was conducted to determine the traffic impacts on the intersection of Kamehameha Highway and the entrance road to Helemano MR, Paalaa-Uka-Pupukea (P-U-P) Road. This assessment is described in Sections D and E of the FEIS. It included general design considerations and analyses of alternatives (traffic signal warrants, the unsignalized intersection, a signalized intersection, and turning lanes). The recommendations to mitigate the traffic impacts became elements of the proposed project roadway system.

CHAPTER 1

PURPOSE AND NEED FOR THE PROPOSED ACTION

1. The purpose of the proposed action is to defer roadway improvements to P-U-P Road and the Kamehameha/P-U-P intersection as described in the FEIS. Because of unanticipated modifications to an on-going element (the sewerline) of the housing construction, there were insufficient funds available to complete the entire project as originally proposed in the FEIS. It is proposed that the external roadway element of the project be deferred until new roadway construction funds can be obtained.

2. In the interim, the need for the proposed action is to provide a safe intersection and access road because of potential congestion associated with the volume of vehicular movement increasing to a maximum of about five times at the intersection as the housing units become occupied on Helemano MR.

3. P-U-P Road is a two-way asphalt pavement road with two lanes which are eleven (11) feet wide. P-U-P Road extends from the intersection of Kamehameha Highway, the major arterial in the area, to Helemano MR and beyond (Figure 1). The current speed limit is 35 MPH except at the sharp bend about half way between Kamehameha Highway and Helemano MR where it is reduced to 15 MPH at the curve. Placing a 15 MPH speed limit sign 50 feet from the original speed limit sign on each side of the road would provide additional warning to motorists to slow down.

4. P-U-P Road is the only paved access road from Kamehameha Highway to Helemano MR (Figure 2). The intersection is at the crest of a hill and is in a road cut. The lack of sight distance and traffic control makes it difficult for those entering onto Kamehameha Highway from P-U-P Road to perform the maneuver in a safe manner. Also, Kamehameha Highway is only a two-lane road. Those wishing to make a right turn into Helemano slow traffic to the rear as they decelerate to negotiate the turn. Those wishing to make a left turn into Helemano MR completely stop the south bound traffic on Kamehameha Highway while waiting for a safe opportunity. The installation of traffic lights at this intersection will increase the safety of motorists by regulating stopping and turning.

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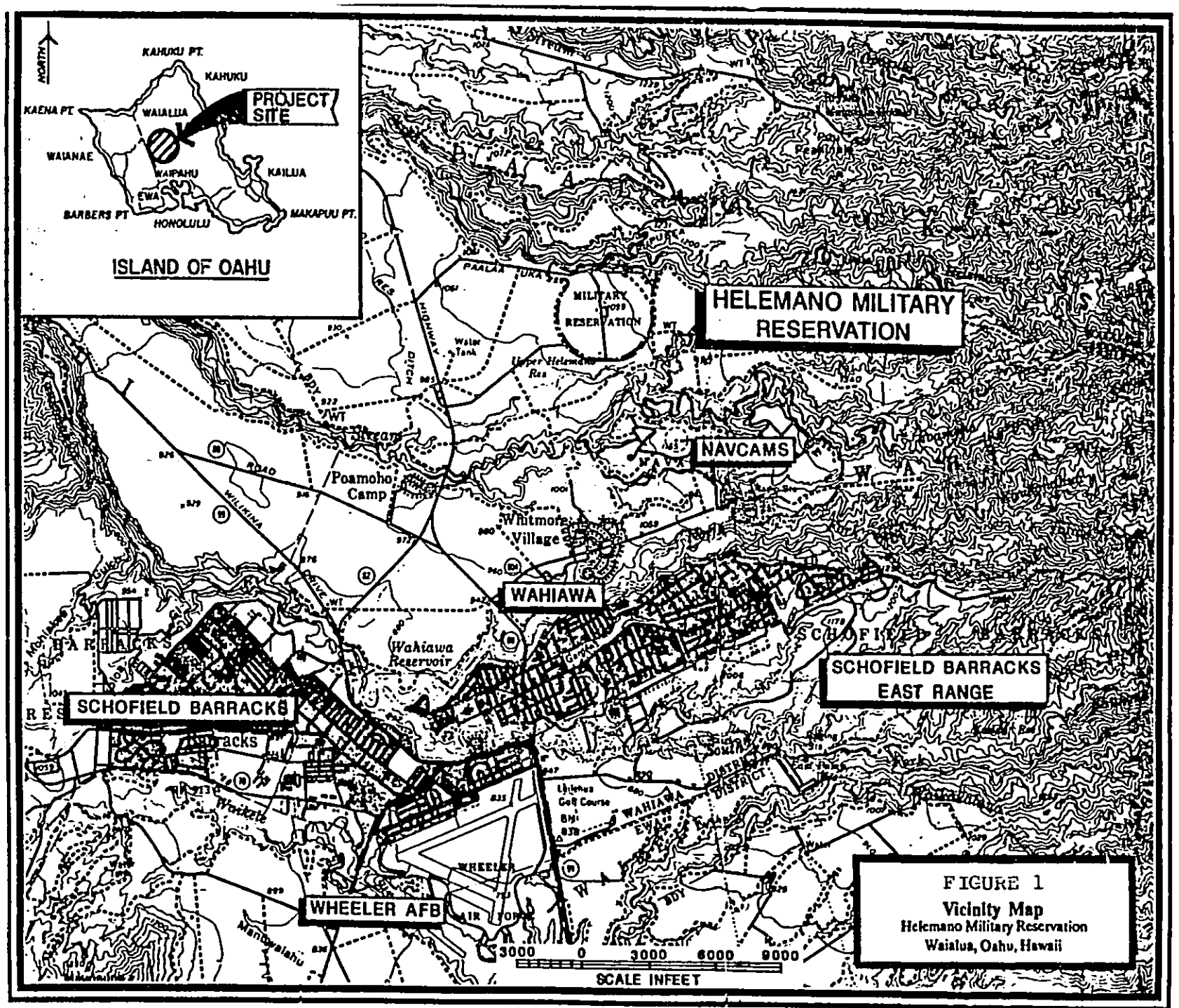

FIGURE 1
Vicinity Map
Helemano Military Reservation
Waialua, Oahu, Hawaii

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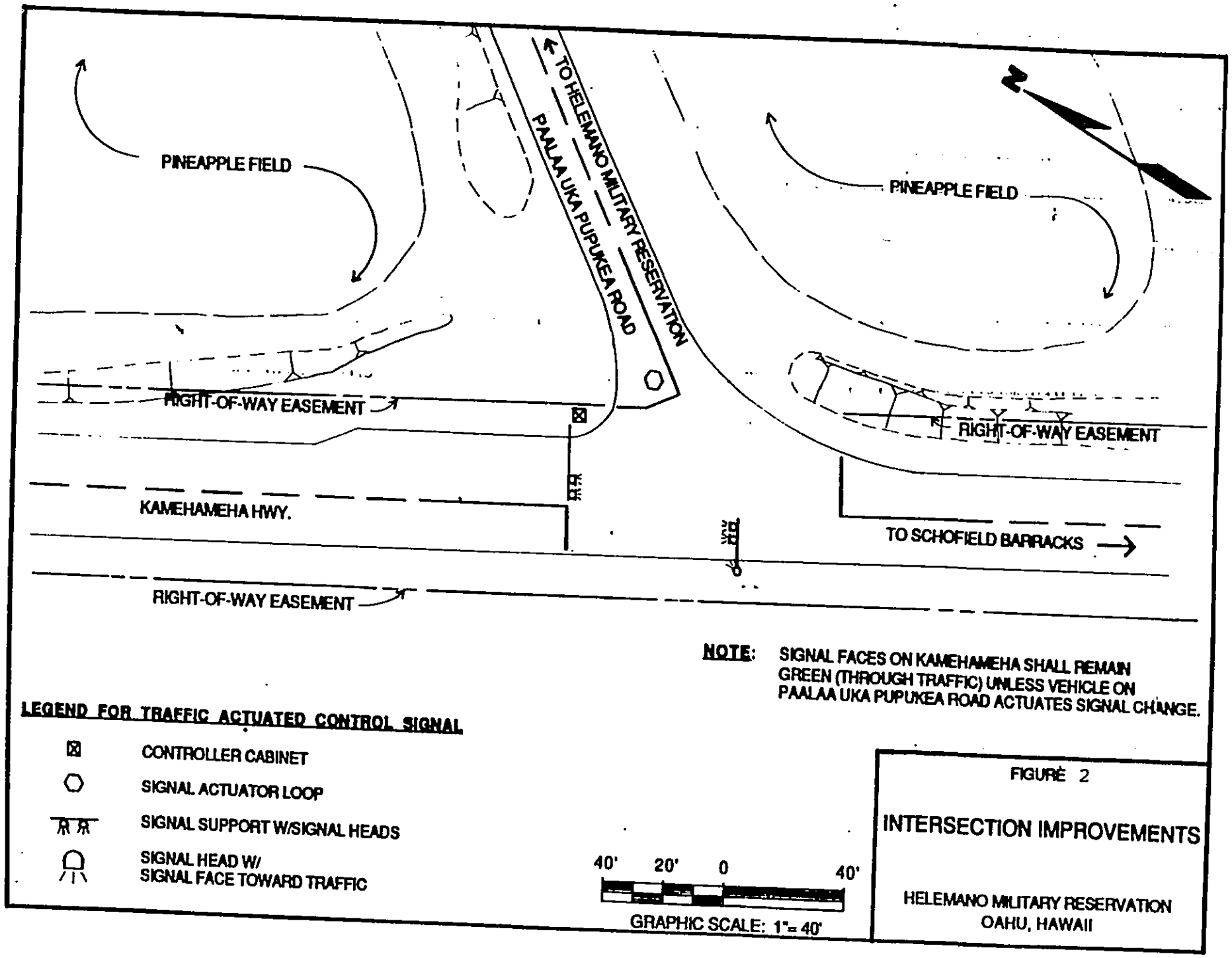

CHAPTER 2

DESCRIPTION OF THE PROPOSED ACTION

1. The proposed action is to temporarily retain the present (original) alignment of P-U-P Road and the intersection of Kamehameha/P-U-P Road until additional funds can be obtained to realign P-U-P Road and construct a new intersection as recommended in the FEIS and ROD. The proposed action would improve the intersection with traffic lights (Figure 2) and place two additional speed limit signs on P-U-P Road.

2. The traffic lights will be a two-phase, semi-actuated operation with the Kamehameha Highway traffic having a continuous green until lights are actuated by vehicles turning left from P-U-P Road. Since there is no left-turn storage lane on Kamehameha Highway, an advance green signal phase cannot be provided for vehicles turning left into the P-U-P Road.

3. There would be no other changes to the intersection or to the existing P-U-P alignment during the interim period.

CHAPTER 3

ALTERNATIVES TO THE PROPOSED ACTION

3.1 Alternative A: Construct improvements as described in the FEIS.

1. Construct improvements as described in the FEIS. A traffic assessment of the proposed project was conducted to determine the traffic impacts on the intersection of Kamehameha/P-U-P Road and the sharp bend in P-U-P Road. This assessment is described in Sections D and E of the FEIS. It included general design considerations and analyses of traffic signal warrants, the unsignalized intersection, a signalized intersection, and turning lanes. The recommendations to mitigate the traffic impacts became elements of the proposed project roadway system.

2. The sharp bend in P-U-P Road would be eliminated during construction of the first phase project as shown in Figure 3. The existing 22-foot pavement width would be adequate for traffic until FY 1992 (the approximate date for the housing units to be completed), when it would be widened to 24 feet. The shoulders were also to be widened to eight (8) feet at that time.

3. At the request of the State Department of Transportation, the alignment of P-U-P Road would be moved northward so that it intersects with Kamehameha Highway at the perpendicular.

4. A deceleration lane with adequate storage capacity on Kamehameha Highway would be provided for both north and south bound traffic entering the access road to Helemano MR. According to the traffic volume analysis, a right-turn lane on P-U-P Road would not be necessary due to low anticipated volume of traffic entering the northbound lane of Kamehameha Highway (M&E Pacific, 1987). Eight-foot wide shoulders would be required on both sides of Kamehameha Highway. The intersection improvements are shown in Figure 3.

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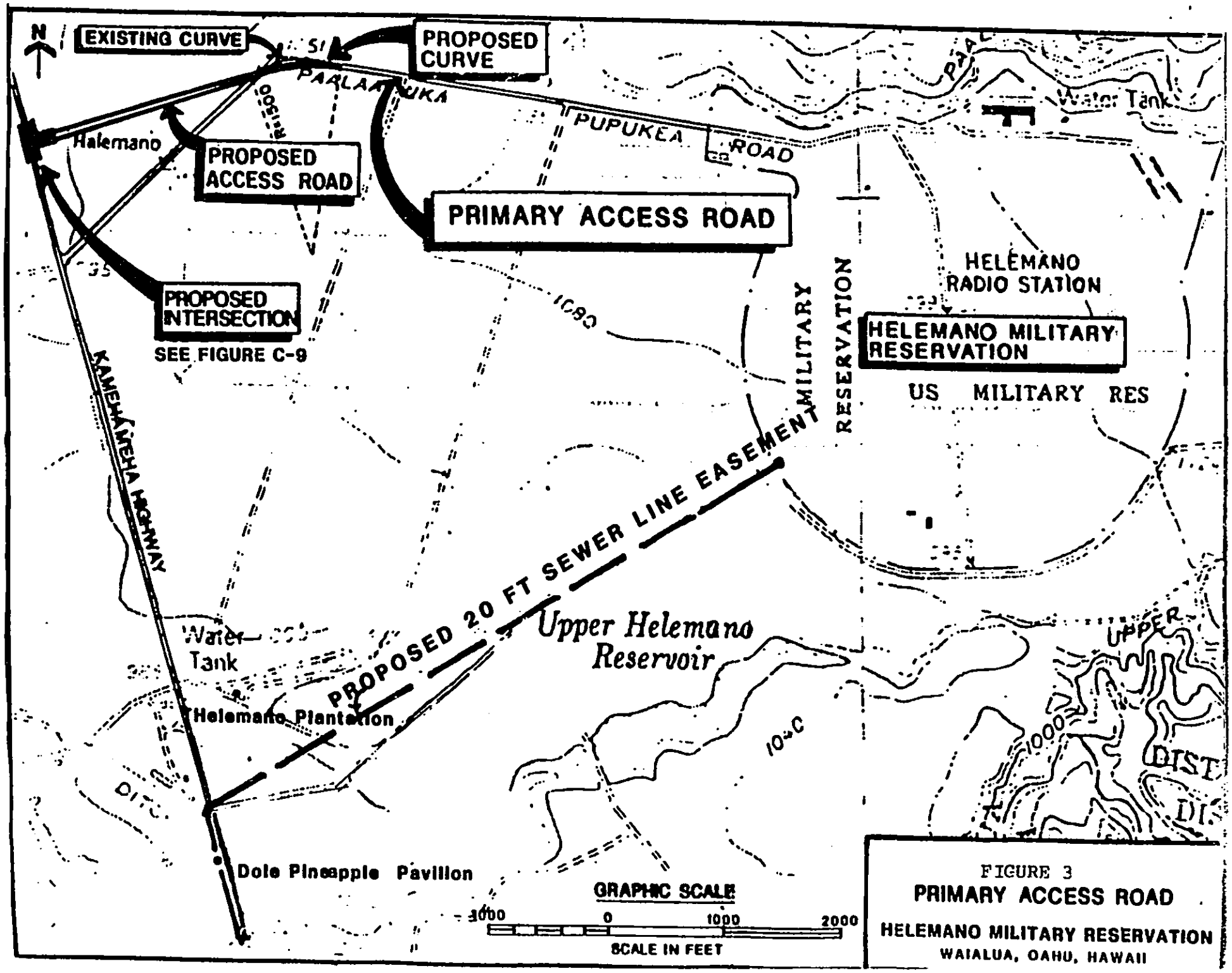

FIGURE 3
PRIMARY ACCESS ROAD
HELEMANO MILITARY RESERVATION
WAIALUA, OAHU, HAWAII

3.2 Alternative B:

1. This alternative would improve sight distance by grading the high point of the mauka shoulder of Kamehameha Highway (Wahiawa side of the intersection), provide a left-turn lane from Kamehameha Highway onto P-U-P Road, and maintain the original alignment of P-U-P Road.

2. The Army currently foresees a potential safety hazard at this intersection which could be mitigated with the installation of traffic lights. As the housing units become occupied, increasingly greater numbers of vehicles will be queued in line to enter onto Kamehameha Highway during rush hour traffic. This condition may cause an extended waiting time and may encourage the drivers to take unnecessary risks.

3. Separate turning lanes can be added to increase intersection capacity or safety. However, there are no national standards or warrants for when to implement separate left-turn and right-turn lanes (M&E Pacific, 1987).

4. An estimate of $1.1 million for construction and real estate acquisition costs to provide a left-turn lane on Kamehameha Highway and to grade the mauka shoulder would be financially unjustified for an interim improvement.

5. The sharp bend on P-U-P may still pose a safety hazard and, in the interim, the cost to provide two additional speed limit signs is feasible.

3.3 Alternative C: No Action.

This alternative would leave the intersection and roadway as it is today. The potential physical and natural environmental impacts of this alternative would be nil. However, Army foresees a potential traffic hazard at the Kamehameha/P-U-P Road intersection as stated in Alternative B due to the increase in vehicular movement. Likewise, the increase in vehicular movement may increase the probability of accidents at the sharp bend on P-U-P Road.

CHAPTER 4

AFFECTED ENVIRONMENT

4.1 Physical Description:

1. Helemano MR, a subinstallation of Schofield Barracks is located in north central Oahu, three road miles from the Schofield Barracks Military Reservation, and approximately two miles from the town of Wahiawa (Figure 1). The area is predominantly rural in character with pineapple fields and military-related operations. It is a flat, circular parcel containing 282.19 acres.

2. Only one roadway provides vehicular access to the Helemano installation: P-U-P Road. This is a two-lane asphalt road crossing over private land owned by Castle & Cooke, Inc. The 1.1 mile roadway is bordered by pineapple fields on both sides. It begins at Kamehameha Highway, makes an abrupt turn at its midpoint, then enters the northwest corner of the installation. The abrupt turn in the access road is dangerous and an invitation to serious accidents (M&E Pacific, 1988). Several unpaved, private roads enter the reservation along the southern boundary, used primarily by utility companies and the planation workers. The P-U-P Road itself veers northward and steeply down into Helemano Stream Gulch, about 2,000 feet after entering the installation. It is mostly a jeep or truck road, accessible to the public with the permission of the Army Range Control Office and the landowner, Castle & Cooke. The public uses it primarily on weekends. The military uses it for access to the mountainous Kawailoa Training Area.

3. Intra-island travel relies almost exclusively on its highway transporation network. Access to Helemano from the Pearl Harbor/Honolulu area is primarily via Interstate Highway H-2 and secondarily via the old Kamehameha Highway and Kunia Road. H-2 ends at Schofield Barracks. Kamehameha Highway passes through Wahiawa and by the entrance road to Helemano MR on its way to Haleiwa and Waialua and the North Shore of Oahu.

4.2 Biological Characteristics [No change; see FEIS].

4.3 History & Historic Sites [No change; see FEIS].

4.4 Social Characteristics [No change; see FEIS].

4.5 Economic Characteristics [No change; see FEIS].

4.6 Land Use & Land Use Policies [No change; see FEIS].

4.7 Traffic Conditions

An analysis of traffic conducted by M&E Pacific (1987) indicated that the nonsignalized intersection was adequate to accomodate the existing traffic flow; however, installation of traffic lights in the intersection of Kamehameha/P-U-P Road would provide a safer traffic condition due to the anticipated volume of vehicular traffic as the dwelling units become occupied. Additional speed limit signs, other than those present, should be posted so that motorists proceed with slower speed at the sharp bend on P-U-P Road.

4.8 Safety and Health [No change; see FEIS].

4.9 Infrastructure and Utilities [No change; see FEIS].

4.10 Public Facilities and Services [No change; see FEIS].

CHAPTER 5

ENVIRONMENTAL CONSEQUENCES OF PROPOSED ACTION

5.1 SHORT-TERM EFFECTS.

5.1.1 Operation of Construction Equipment

Construction equipment needed to emplace traffic lights with poles and traffic signs will probably involve a small pickup truck with utility body, a concrete mixing truck, a crane, a backhoe, a grader, a cable truck, and dump trucks. This small scale, relatively brief construction activity is not expected to generate significant levels of noise or air emissions (i.e., levels which exceed current federal, state or other applicable standards). The Contractor will be required to keep construction activities under surveillance and control to minimize noise, and to comply with the provisions of the Hawaii Public Health Regulations, Chapter 44B, "Community Noise Control for Oahu." The Contractor will also be required to insure that all activities, equipment, processes, and work operated or performed shall be in strict accordance with the State of Hawaii Public Health Regulations, Chapter 43, "Air Pollution Control," and all Federal emission and performance laws and standards. No construction activities will occur in streams or other water bodies. Therefore no short- or long-term effects on water quality are expected.

5.1.2 Traffic Interruption

The construction/emplacement of the traffic lights and signs on the shoulders will require a temporary lowering of speed limit on the adjacent lanes. Traffic lights will be interconnected (power and control) by underground wires requiring trenching. Trenching will occur on one-half of Kamehameha Highway at a time which will result in one lane accomodating the normal two-lane vehicular traffic. The Contractor work schedule will accomodate traffic peak hour periods. These impacts are considered insignificant. The Contractor will be required to submit a Traffic Control Plan as part of the Environmental Protection Plan.

5.2 LONG-TERM EFFECTS

5.2.1 Resources of Principal National Recognition

Based on previous and current environmental field studies, the proposed project is not expected to have any effects on any of the following resources:

Sites listed or eligible for National or State Register of Historic Places

Listed, proposed, or candidate Endangered Species, or critical habitats
Prime or unique farmlands
Coastal zones
Wilderness areas or wildlife refuges
Wild or scenic rivers
Public parks or recreation areas
Sole or principal drinking water aquifers
Ecologically or culturally sensitive areas

5.2.2 Traffic Impacts

Since no left-turn storage lanes are being provided on Kamehameha Highway or P-U-P Road, the proposed traffic light on Kamehameha Highway will stop traffic flow along the highway whenever at least one vehicle is making a left turn from P-U-P Road onto the highway or a left turn from the highway into P-U-P Road. Right turns from either road are likely to have little disruption on existing traffic flows. Without a light, traffic flow on P-U-P Road, which will increase by a maximum of over 200 vehicles, will be likely to substantially backup, particularly during the morning commute period, when nearly all vehicles leaving Helemano MR will be turning left to head south toward Schofield Barracks. Such congestion may induce anxiety among the military drivers, concerned about reporting to duty on time, possibly prompting them to take unnecessary risks to turn left onto Kamehameha Highway. The risk would affect drivers of vehicles on both roads.

CHAPTER 6

ENVIRONMENTAL CONSEQUENCES OF ALTERNATIVE ACTIONS

6.1 Alternative A: Although this alternative would result in both short- and long-term effects, it is still the preferred alternative as described in the FEIS. These effects have been thoroughly detailed in the FEIS. The Army intends to pursue this alternative, however at the present, there is no money available for these preferred roadway improvements. Should there be a substantial change to Alternative A from the two-lane improved road that is recommended in the FEIS, the change will be environmentally assessed.

6.2 Alternative B: Although a separate left-turn lane on Kamehameha Highway is not really needed to make the intersection perform at capacity, it was included in the FEIS to assure the safety of vehicles turning against the traffic. Road improvement to provide the left-turn lane on Kamehameha Highway would permanently displace 1.7 acres of prime agricultural land in pineapple cultivation. The short-term effect of the left-turn lane construction and grading process is that traffic flow on Kamehameha Highway will be partially disrupted. Very little, if any, short- and long-term effects would be incurred with the posting of additional speed limit signs. This alternative is not suitable because of the long-term effect of prime agricultural land displacement and associated costs for an interim improvement.

7.3 Alternative C: The No Action alternative would pose very little physical and natural environmental impacts. This alternative may have short- and long-term impacts on the human environment as discussed in Chapter 5.

CHAPTER 8

CONCLUSION

This Environmental Assessment concludes that the proposed action to install traffic lights at the intersection of Kamehehameha Highway and P-U-P Road and posting of additional speed limit signs on P-U-P Road do not constitute major Federal actions having a singly or cumulative significant effect on the quality of the human environment. Therefore, it is recommended that a Finding of No Significant Impact (FONSI) be prepared.

REFERENCES

M&E Pacific, Inc. (Honolulu, Hawaii). "Feasibility and Cost Study for Infrastructure Support: Helemano Housing, Hawaii." Prepared for Department of the Army, Pacific Ocean Division, Corps of Engineers, Fort Shafter, Hawaii 96858-5440, August 1987.

M&E Pacific, Inc. (Honolulu, Hawaii). Pre-Final "Helemano Military Reservation: Master Plan Report." Prepared for U.S. Army Western Command; U.S. Army Support Command, Hawaii. Contracted by U.S. Army Engineer Division, Pacific Ocean, Fort Shafter, Hawaii 96858-5440, August 1988.

U.S. Department of the Army, USASCH. "Final Environmental Impact Statement for Army Family Housing New Construction at Helemano Military Reservation, City and County of Honolulu, Island of Oahu, Hawaii." Prepared by David Sox for U.S. Army Engineer District, Honolulu, Fort Shafter, Hawaii 96858-5440, October 1988

FINDING OF NO SIGNIFICANT IMPACT

Based on the analysis in the attached Environmental Assessment, I find that the proposed action will not have a significant impact on the human environment. I therefore conclude that no Environmental Impact Statement is necessary.

My reasons follow:

1. Anticipated short-term construction effects will be minimal, limited to some unavoidable noise, vibration, and dust. These effects are not expected to inconvenience the residents of Helemano Military Reservation due to the location of construction. Traffic flow may be disrupted while construction is undertaken. The construction specifications contain provisions requiring compliance with applicable Federal, State, and City and County regulations governing air emissions, noise, water quality control, traffic movement, and general safety.

2. Anticipated long-term effects to the physical environment will be mostly negligible or insignificant.

3. No threatened and endangered species exist in the project area, and no known cultural sites exist. If any are discovered, work will cease and potential impacts will be assessed.

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Hawaii Environmental
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PUBLIC COMMENTS: Comments on this Finding of No Significant Impact must be received within 30 calendar days after its initial publication and shall be directed to:

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