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GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

Waiawa Correctional
Facility Imp.

SAM CALLEJO
COMPTROLLER

MARY PATRICIA WATERHOUSE
DEPUTY COMPTROLLER

PM-1278.7

LETTER NO. _____

DEC 18 1997 '97 DEC 19 AM 11:57

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Mr. Gary Gill
Director
Office of Environmental Quality Control
Leiopapa A Kamehameha, Suite 702
235 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: Final Environmental Assessment/Finding
of No Significant Impact
Waiawa Correctional Facility
D.A.G.S. Job No. 12-27-5522
TMK: 9-6-05:11, Waiawa, Ewa, Oahu

The State Department of Accounting and General Services has reviewed the comment letters received during the public review period and has determined that the project qualifies as a Finding of No Significant Impact (FONSI). Please publish notice of this in the January 8, 1998, issue of your *Environmental Notice*.

We have enclosed a completed OEQC *Environmental Notice* Publication Form, a computer disk with the project description and four copies of the Final EAF/FONSI. Should you have any questions or require additional information regarding this, please contact Mr. Eric Nishimoto at 586-0468.

Very truly yours,

A handwritten signature in black ink, appearing to read "Gordon Matsuoka".
GORDON MATSUOKA
Public Works Administrator

EN/si
Encl.
cc: Architects Hawaii, Ltd.
Wilson Okamoto & Associates, Inc.

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1998-01-08-0A-*FEA*-Waiawa Correctional *PLAN* - 8 1998

Facility Improvements **FILE COPY**

Final Environmental Assessment
and Finding of No Significant Impact
(FONSI)

**WAIAWA CORRECTIONAL
FACILITY
IMPROVEMENTS**

Waiawa, Ewa, Oahu, Hawaii

Prepared for:

State of Hawaii
Department of Accounting and General
Services

and

Department of Public Safety

Prepared by:

Wilson Okamoto & Associates, Inc.
Engineers and Planners

December 1997

**Final Environmental Assessment
and
Finding of No Significant Impact (FONSI)
WAIAWA CORRECTIONAL FACILITY
IMPROVEMENTS**

Waiawa, Ewa, Oahu, Hawaii

Prepared for:

**State of Hawaii
Department of Accounting and General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810-0119**

Prepared by:

**Wilson Okamoto & Associates, Inc.
Engineers and Planners
1907 South Beretania Street, 4th Floor
Honolulu, Hawaii 96826**

December 1997

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PREFACE

This Final Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) is prepared pursuant to Chapter 343, Hawaii Revised Statutes, and Title 11, Chapter 200, Administrative Rules, Department of Health, State of Hawaii. Proposed is an agency action involving the expenditure of State funds and the use of State lands by the Department of Accounting and General Services (DAGS) for the Public Safety Department (PSD) to construct facilities at its Waiawa Correctional Facility (WCF). Proposed is a 200-bed compound housing the PSD's KASHBOX drug rehabilitation program. In addition, this EA provides an after-the-fact assessment of various facilities constructed by the State at the WCF since 1985, but which were not previously assessed.

The WCF was established in 1985 at the former U.S. Army Waiawa Military Reservation. An environmental assessment with a negative declaration was prepared and processed in September, 1985 for the conversion of former military facilities into a 120-Bed Minimum Security Correction Facility. Since that time, however, several new facilities were constructed and, currently, interim infrastructure facilities are being constructed at WCF. The environmental impacts of these past and on-going improvements were not previously assessed pursuant to Chapter 343, HRS. Therefore, this EA provides an after-the-fact assessment of these improvements.

Following construction of the 200-bed KASHBOX compound, the current inmate population of 282 will increase to 334, based on the projected design and operational capacity of the WCF. The inmate population projection assumes that inmates will be transferred among other facilities, released or absorbed into the KASHBOX drug rehabilitation program. At this time, there are no plans for further expansion of the WCF.

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SUMMARY

Proposing Agency: Department of Accounting and General Services
Division of Public Works
Project Management Branch
P.O. Box 119
Honolulu, Hawaii 96810-0119
Contact: Eric Nishimoto, P.E.
Phone: (808) 586-0468
Fax: (808) 586-0530

EA Preparer: Wilson Okamoto & Associates, Inc.
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826
Contact: Earl Matsukawa, AICP
Project Manager
Phone: (808) 946-2277
Fax: (808) 946-2253

Accepting Agency: Department of Accounting and General Services
Division of Public Works
Project Management Branch

Project Location: Waiawa, Ewa, Oahu

Tax Map Key: 9-6-05:11

Area: 157.875 acres

Recorded Fee Owner: State of Hawaii

Existing Land Use: Minimum Security Correctional Facility

**State Land Use
Classification:** Agricultural District

**Development Plan
Land Use Map:** Public Facility

Development Plan

Public Facilities Map:

- Private Funding (No Timing Schedule)
- Water System
 - Water Well - Site Determined
 - Water Reservoir - Site Determined

Zoning:

F-1 (Military and Federal Preservation District)

Proposed Action:

This environmental assessment encompasses three general categories of improvements at the Waiawa Correctional Facility: various facilities constructed since 1985, which are assessed after-the-fact; interim infrastructure improvements, some of which are currently under construction; and, the 200-bed KASHBOX Drug Rehabilitation Program Compound.

Impacts:

No significant environmental and social impacts have resulted from the construction and operation of various improvements at the Waiawa Correctional Facility since 1985. Likewise, no significant impacts are anticipated from on-going and proposed construction activities and future operation of the expanded facility.

**Agencies Consulted
in Pre-Assessment
Process:**

State of Hawaii

Department of Public Safety

City and County of Honolulu

Planning Department

Other

Waipahu Neighborhood Board No. 22
Mililani/Waipio/Melemanu Neighborhood Board No. 25
Wahiawa Neighborhood Board No. 26

**Agencies Consulted
in Draft EA**

Process:

Federal

U.S. Navy
U.S. Department of Agriculture

State of Hawaii

Department of Land and Natural Resources
Historic Preservation Division
Commission on Water Resource Management
Land Division
Department of Health
Environmental Management Division
Office of Environmental Quality Control

City and County of Honolulu

Planning Department
Department of Land Utilization
Police Department
Fire Department
Department of Public Works
Department of Wastewater Management
Board of Water Supply

Other

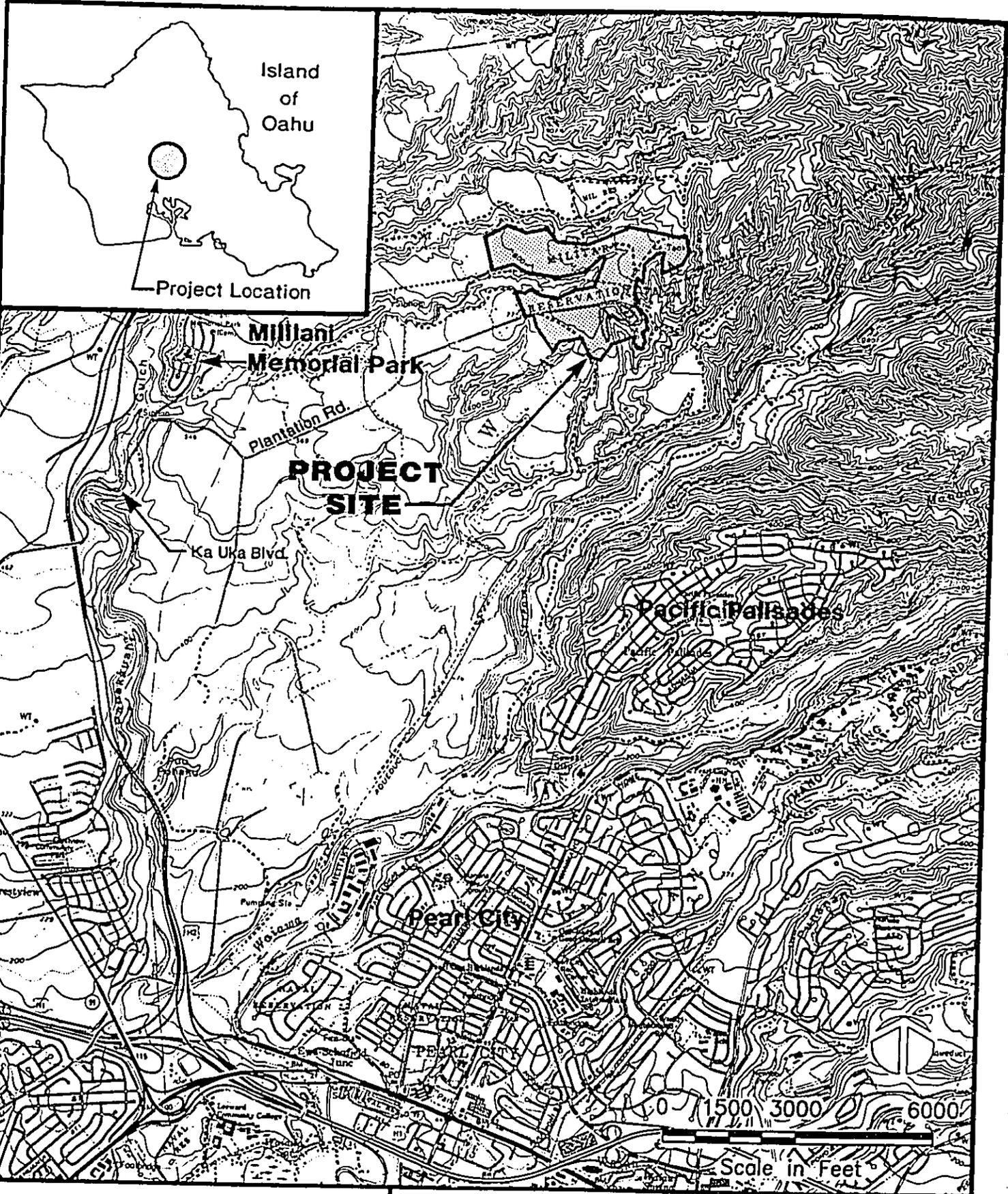
Waipahu Neighborhood Board No. 22
Mililani/Waipio/Melemanu Neighborhood Board No. 25
Wahiawa Neighborhood Board No. 26
Pearl City Neighborhood Board No. 21
Councilmember Mufi Hannemann
Councilmember Rene Mansho
Pearl City Public Library
Mililani Public Library
Gentry Homes, Ltd.

1. INTRODUCTION AND PROJECT DESCRIPTION

1.1 Introduction

The State of Hawaii Department of Accounting and General Services (DAGS) proposes to build a 200-bed KASHBOX Drug Rehabilitation Program Compound at the Department of Public Safety's (PSD) minimum-security Waiawa Correctional Facility (WCF) at Waiawa, Oahu, Hawaii (See Figure 1). In addition, DAGS has determined that various facilities constructed by the State at WCF since 1985, after the State acquired the property and converted it from a military reservation to a correctional facility, were not assessed and reviewed pursuant to Chapter 343, HRS. Interim infrastructure improvements currently under construction were also not assessed and reviewed. Therefore, this environmental assessment encompasses three general components: facilities constructed since 1985, which are assessed after-the-fact; the interim infrastructure improvements, some of which are currently under construction; and, the proposed 200-bed KASHBOX Program Compound (See Table 1). KASHBOX stands for Knowledge, Attitude, Skills, Habits, Behaviors, Opinion and X - The Unknown Factors.

The WCF currently houses approximately 280 minimum-security inmates in former Army barracks and as well as two temporary tent structures. Of this population, 34 inmates are currently participating in the existing KASHBOX program. By the time that the 200-bed KASHBOX Compound is scheduled to be occupied in January of 1999, the maximum inmate population at WCF will be 334. This will be achieved as inmates are relocated, released or absorbed into the KASHBOX program to be housed in the 200-bed addition. The remaining 134 inmates in the general population will occupy the existing facilities. Two temporary tent structures currently housing 40 inmates in the Domestic Violence Program and 50 inmates in the general population will be converted to other programs. Domestic Violence inmates who are not absorbed into the KASHBOX program or into the general inmate population at WCF will be returned to Oahu Community Correctional Center (OCCC). No further expansion of the WCF is planned at this time.



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**WAIAWA
 CORRECTIONAL FACILITY
 IMPROVEMENTS**

LOCATION MAP

Fig. 1

Prepared for:
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Prepared by:
**WILSON OKAMOTO &
 ASSOCIATES, INC.**

Table 1 Waiawa Correctional Facility Improvements		
Facilities Constructed Between 1985 and 1996	Interim Infrastructure Facilities (Some currently under construction)	Proposed Facilities
<ul style="list-style-type: none"> • Guard shack • Medical services building • Dining facility and kitchen • Wastewater treatment system and evaporation pond • Education building • Pavilion/multi-purpose area • Recreational court and support building • Chapel • Operations building • Wastewater treatment plant upgrade • Administration building • 20-bed housing unit conversion • Two tents and shower/toilet facilities • Second 20-bed housing unit conversion • Staff Support Facility • Equipment storage facilities • Water treatment and distribution system upgrade • Electrical improvements • Roadway and parking improvements 	<p><u>Water System</u></p> <ul style="list-style-type: none"> • Expansion of water filtration facility • Modification to filter backwash system • 500,000 gallon potable water reservoir • Fire protection lines and hydrants • Untreated surface water system upgrade <p><u>Wastewater System</u></p> <ul style="list-style-type: none"> • Wastewater treatment plant upgrade • Conversion of an existing sewage pond to serve in a reclaimed water treatment system • Reclaimed water storage and distribution system with pump and forcemain • 16 acre agricultural irrigation reuse area for reclaimed water <p><u>Utilities</u></p> <ul style="list-style-type: none"> • Electrical system upgrade • Communication system upgrade 	<p>200-Bed KASHBOX Compound including:</p> <ul style="list-style-type: none"> • Two 100-bed housing structures • Future playcourt • Classroom facilities • Office structures • Parking • Fencing

1.2 Project Location

The WCF is located in the Ewa District of Oahu, about 1.5 miles east of Interstate Freeway H-2 and west of Waiawa Stream. It occupies the former Waiawa Military Reservation which encompasses 192 acres of land identified as Tax Map Keys (TMK): 9-6-05: 11 and 12 (See Figure 2). The project site was acquired by the State of Hawaii from the federal government through a 30-year quitclaim deed which it entered into in 1985. During the 30-year period, the federal government can reclaim title to the property should the State fail to meet the terms of the deed.

The proposed improvements will be situated on Parcel 11, the larger of the two parcels, adjacent to the existing WCF structures and facilities. Isolated at the foot of the Ewa Forest Reserve, the WCF is located approximately 1.2 miles from the Pacific Palisades residential area to the southeast, 1.7 miles from Mililani Memorial Park to the west, 3.2 miles from Mililani Town to the west, 5.3 miles from Wahiawa to the north and 3 miles from Pearl City to the south. The site of the planned Gentry Waiawa development is located immediately west and south of the WCF and would extend over three miles southward to the Interstate H-1 and H-2 interchange. Vehicular access to the project site is via Plantation Road, approximately 1.2 miles from its intersection with Ka Uka Boulevard.

1.3 Existing and Surrounding Uses

For the purposes of this environmental assessment, the existing use of the project site dates back to when the State acquired it in 1985 and converted the former military reservation into a minimum-security correctional facility. As illustrated in Figures 3 and 4, existing facilities at that time included:

1. The former Commanding Officer's Quarters which was converted in 1985 for use as the Administration Building;
2. Three two-story structures formerly used for Dependent Housing which were converted in 1985-86 into dormitories containing 122 beds;

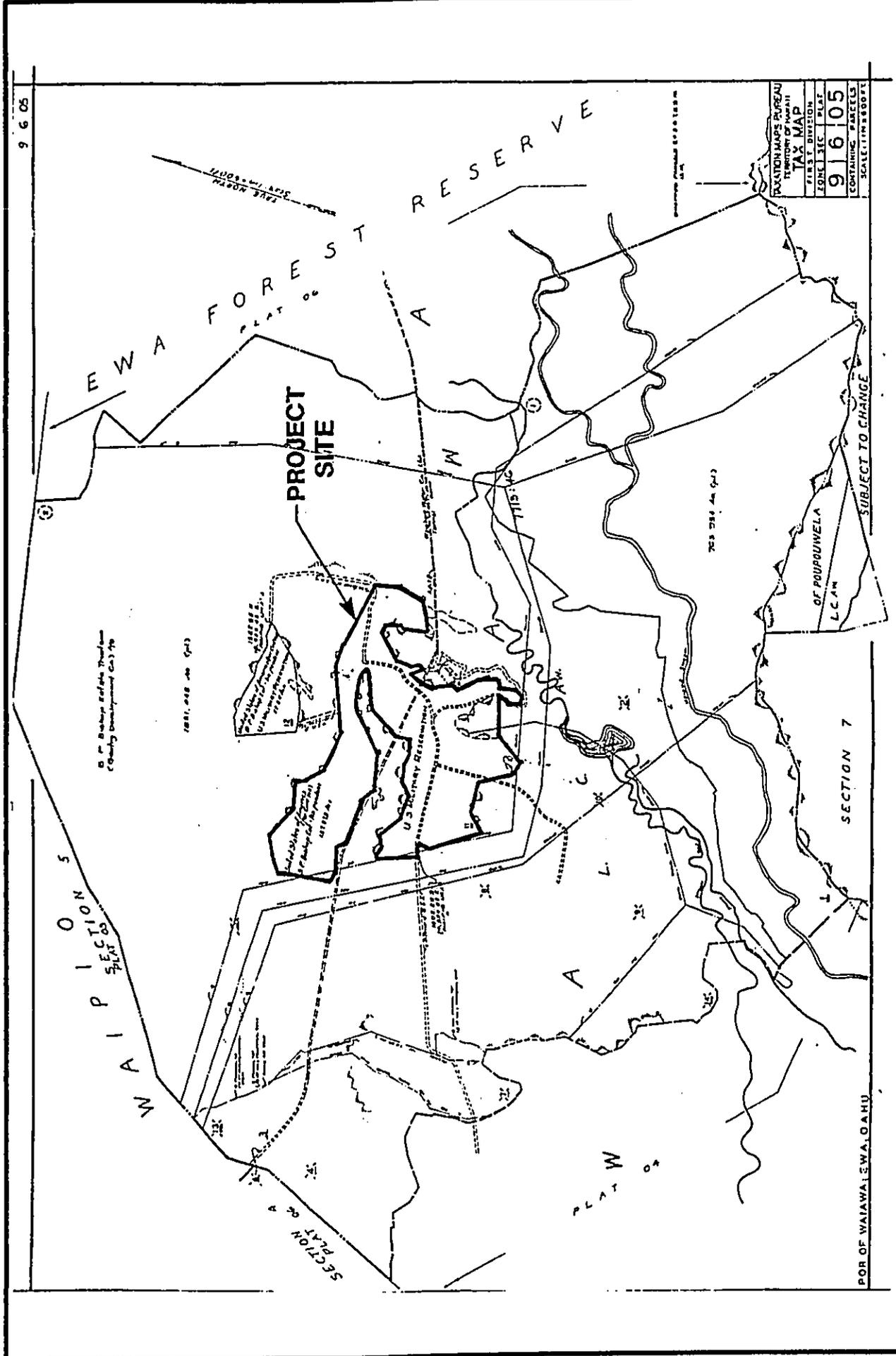


Fig. 2

**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

TMK 9-6-05

Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES, STATE OF HAWAII

Prepared by:
**WILSON OKAMOTO &
ASSOCIATES, INC.**

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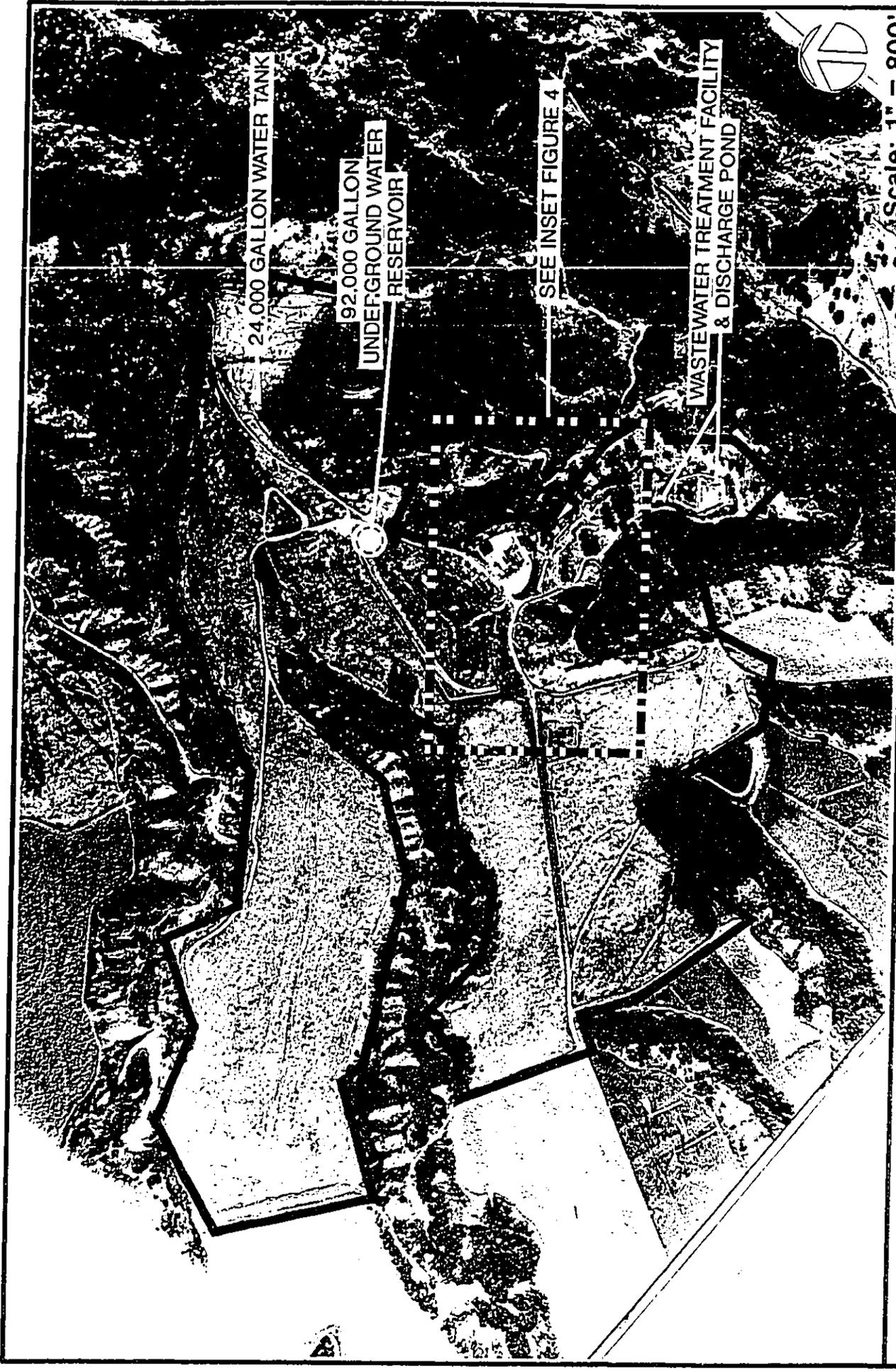


Fig. 3

**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

AERIAL PHOTO - 1973

Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES, STATE OF HAWAII

Prepared by:
WILSON OKAMOTO &
ASSOCIATES, INC.

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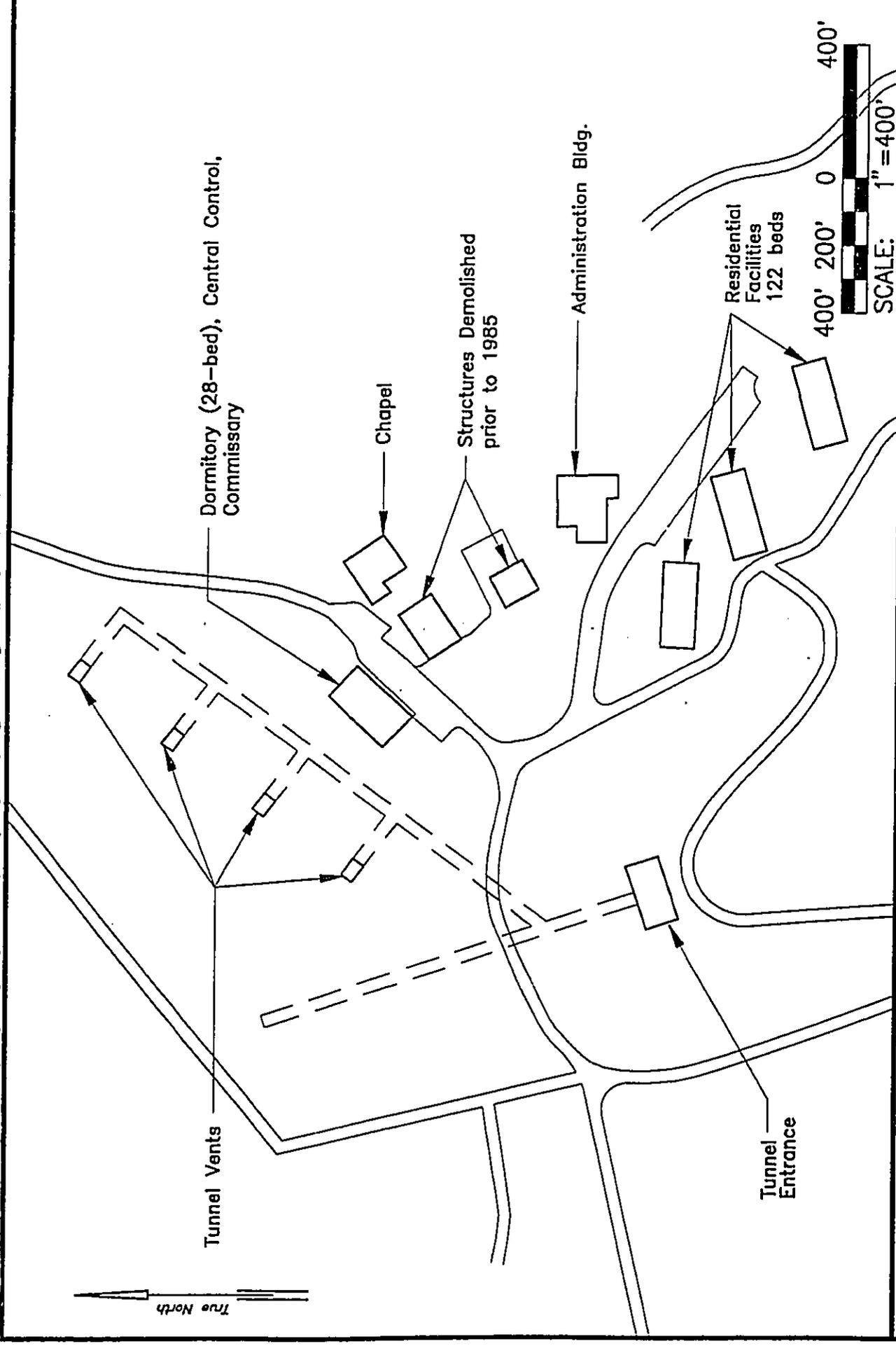


Fig. 4

**INSET
AERIAL PHOTO - 1973**

**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES, STATE OF HAWAII

WILSON OKAMOTO &
ASSOCIATES, INC.

3. A three-story building formerly serving as the Enlisted Men's Barracks which was converted in 1987 into a 28-bed dormitory, Central Control Facility, Commissary, and Intake Area;
4. A 24,000-gallon potable water tank and treatment facility processing surface water drawn from the Waiahole Ditch for domestic use;
5. A 92,000 gallon underground reservoir used to hold untreated surface water drawn from Waiahole Ditch;
6. A wastewater collection system, septic treatment facility and discharge pond; and,
7. A tunnel which was used to house communication antennas. The tunnel has two forks, one approximately 180 feet long aligned in a north-south direction and the other branching to the northeast for a length of approximately 500 feet. The longer tunnel has ventilation shafts with above-ground vents.

The gullies adjacent to the WCF are wooded. Nearby uses include the Mililani Memorial Park cemetery. The nearest developments include the Pacific Palisades residential development to the east, the Mililani Community to the west, Pearl City to the south, and Wahiawa, Wheeler Army Airfield and Schofield Barracks to the north. In the future, the planned Gentry Waiawa development would be located adjacent to the WCF to the west and south.

1.4 Project Need

1.4.1 Ten-Year Corrections Master Plan (1991)

The Ten-Year Corrections Master Plan was prepared by the Public Safety Department (PSD) in June, 1991. The document examined trends over the preceding 15 years and summarized the "Current Conditions and Needs" at that time as follows:

- **Crime** *The Crime Rate in Hawaii has fluctuated some over the past fifteen years. However, the decade of the Eighties ended with virtually the same rate of crime as existed in the mid-1970's -- slightly more than 60 reported Index Crimes per 1,000 State residents.*

- **Arrests** *From the mid-1970's through the end of the 1980's, the rate at which law enforcement personnel made arrests grew steadily, increasing over 60 percent during the period. Likewise, the rate at which criminal cases were filed in the State's court grew by almost 75 percent.*

- **Corrections** *During the same fifteen year period, there has been a four-fold increase in the rate at which offenders are incarcerated in the State. In the mid-1970's, there was only about one-half an inmate per 1,000 State population. By the end of the Eighties, the State was incarcerating 2 inmates per 1,000 State population.*

The 1991 Plan further stated that *"The direction of the State's criminal justice policy is clear - to lock up a larger percentage of the people who commit crime in Hawaii...This policy direction is the most important factor pointing to the most important conditions and needs facing the State and the Public Safety Department in the area of corrections."*

Inmate Population Projections

The 1991 Plan projected the total inmate headcount for all prison and jail facilities in the State at 2,904 in 1997 and 2,994 in the Year 2000. The net new bed space requirement for this projected population was estimated at 230 beds by 1997 and 333 by the Year 2000. By comparison, the total statewide inmate headcount as of September 30, 1997 was 3,947, excluding the 600 inmates transferred to correctional facilities in Texas. This figure already exceeds the projection of the 1991 Plan for the Year 2000 by 1,500 inmates.

The WCF was described in the 1991 Plan as having been designed as a 94-bed facility although, by that time, its operating capacity had been increased to 134 beds. Due to the "general quality

and condition of the facility," however, the consultants recommended that the facility "be phased out of operation during this decade." The PSD did not accept this recommendation.

Instead, the WCF has continued to be used as a minimum-security facility due to the high demand for prison space. With the addition of various support facilities, the inmate population grew from 134 to 240. In 1996, a 5,000-square foot tent and a toilet/shower facility were erected to house 50 inmates at WCF. Then, in 1997, a 4,000 square foot tent was erected and six portable toilets installed to house 40 Domestic Violence inmates who were moved from OCCC due to overcrowding at that facility. These inmates have less than a year left in their prison term and meet the criteria for being held at a minimum-security facility. The inmates currently occupying these temporary facilities will be among those who will be transferred among other facilities, released or absorbed into the KASHBOX drug rehabilitation program when the proposed KASHBOX Compound is ready for occupancy. At that time, the temporary facilities will be used for other programs.

Management and Operation Plan

The 1991 Plan also included a Management and Operations Plan for the Public Safety Department. Within this context, several goals related to Classification, Case Management and Programs are stated relating to Inmate Management, Substance Abuse, Sex Offenders, Women's Issues, Academic Education, Vocational Education, Correctional Industries, Work Lines, Library Services, Recreation, Volunteer Programs, Religious Services and Release Preparation. The need for the facility improvements at WCF are based on several of these goals, as discussed below:

Substance Abuse

Goal: The goal of the PSD in the provision of substance abuse programming is:

- *Institution of an effective continuum of drug and alcohol education, prevention, general population, and residential treatment services for inmates with histories of substance abuse.*

- *Provide particular focus on transition back into the community and linkage to appropriate community-based resources.*

The proposed 200-bed expansion is to accommodate the KASHBOX program which has been at WCF since 1990. KASHBOX is a long-term (9-15 month) comprehensive program that utilizes a holistic approach to evaluate and treat individuals through a global change in lifestyle. The Therapeutic Community it provides is a 24-hour learning experience in which individual changes in conduct, attitude, and emotions are monitored and mutually reinforced in a daily regimen. KASHBOX staff encourages family interaction and participation in the inmates' recovery process.

Based on PSD data, inmates who clinically completed the KASHBOX program had a recidivism rate of 29.8 percent while those who failed to complete the program had a recidivism rate of 36.4 percent. In contrast, non-KASHBOX parolees recidivate at a 50 percent rate.

Vocational Education

Goal: The goals of the PSD in the provision of vocational training are, in coordination with the University of Hawaii, Department of Education, and Department of Labor:

- *To provide certified and competency based vocational training programs for sentenced inmates that serve as part of a continuum of academic education, vocational training, and industrial work opportunities to teach skills relevant to employment opportunities in the community.*

The Educational Building houses vocational training programs offered at WCF, including Visitor Industry and Computer. With on-going infrastructure improvements for agricultural irrigation and reclaimed water irrigation, agriculture-related vocational education opportunities will be expanded.

Work Lines

Goal: The goals of the PSD in the utilization of inmate labor on work lines are:

- *To provide full-time equivalent work assignments for 25 percent of the general inmate population in each correctional facility that gives participants the opportunity to acquire and practice job skills and develop good work habits and attitudes that can apply to jobs after they are released.*

The WCF provides full-time equivalent work assignments for 100 percent of the inmate population. Several of the facilities at WCF such as the Food Service Kitchen provide work line opportunities. Also, the various equipment storage and maintenance facilities support the work line goal. Work line programs include facilities construction and maintenance as well as a tropical agriculture program. Many of the structures and infrastructure improvements at WCF were and are being constructed by inmates as part of the work line program. With on-going infrastructure improvements for agricultural irrigation and reclaimed water irrigation, the agriculture aspects of the work line program can also be expanded.

Library Services

Goal: The goal of the PSD for the provision of library services is:

- *To provide inmates in each institution access to law, general reference, and recreational library materials according to the American Correctional Association Standards. (Pursuant to a 1977 U.S. Supreme Court ruling, inmates must be provided with access to the courts.)*

The Library, which is housed in the Education Building, is intended to help achieve this goal. The Library also participates in the State Department of Education's Bookmobile program.

Recreation

Goal: The goals of the PSD in the provision of recreation programs for the inmate population are:

- *To maintain the physical health of inmates while they are incarcerated.*
- *To promote team participation and cooperation with others while teaching self-discipline and responsiveness to authority.*
- *To teach inmates positive leisure skills that are transferable to the community post-release.*

Recreational facilities at WCF include a recreational court and supporting building providing office space and equipment storage. The proposed 200-bed KASHBOX Compound also includes space for a future recreational playcourt.

Religious Services

Goal: The goal of the PSD in the provision of religious services for the inmate population is:

- *To ensure that all inmates are provided with the opportunity to exercise their constitutional right to religious freedom to the extent that it does not interfere with the order and security of the institution.*

To achieve this goal, the PSD intends to:

4. *Establish a multi-denominational chapel and adequate facilities for the delivery of religious services, individual and group counseling, and teaching in all correctional institutions.*

This goal is achieved by the chapel at the WCF.

Release Preparation

Goal: The goal of the PSD in the provision of release preparation programming is:

- *To provide inmates with an orientation to the demands of living, learning, and working in the community. This includes pre-release orientation and training, community service, gradual work release, and community furlough that will facilitate the successful transition of inmates from the institution to the community. It also includes an adequate system of support, continuity, and linkage to community-based resources for special needs offenders.*

As the only minimum-security facility on Oahu, WCF provides a critical step in release preparation. Programs at WCF that are relevant to release preparation include drug rehabilitation and vocational training. As discussed previously, facility needs for both of these programs are addressed at WCF. Following their stay at WCF, which averages one to two years, the inmates are either released or enter the Laumaka Work Furlough Program at OCCC prior to their release.

Support and Operations

The 1991 Plan also presents goals and action plans for Support and Operations of the PSD. Included are topics relating to Human Resources Management, Health Services, Visitation, Food Services, Commissary, Laundry, Facility Management, Transportation and Warehousing. The need for the facility improvements at WCF are based on several of these goals, as discussed below:

Medical Health Services

Goal: The goals of the PSD in the provision of medical health services to the inmate population are:

- *In coordination with security and other sections of the PSD, to provide inmates with ready access to a comprehensive continuum of quality medical care services.*

The Medical Services Building at WCF provides medical services to inmates. This responds to the PSD's stated intent in the 1991 Plan to *"Develop an appropriate health care clinic and observation beds in all facilities."*

Visitation

Goal: The PSD's goal is to provide inmates with the privilege of visitation with relatives, friends, and attorneys without compromising the safety and security of the institutions. Visitation privileges will be in accordance with State of Hawaii Department of Social Services and Housing, Title 17, Administrative Rules of the Corrections Division-Inmate Handbook, October 1983.

Visitation areas have been provided in the vicinity of the Medical Services Building and the Pavilion/Multi-Purpose Area. This responds to the PSD's stated intent in the 1991 Plan to *"Provide sufficient space for processing of visitors at each facility."*

Food Services

Goal: The PSD's goal is to prepare and serve nourishing balanced meals to all inmates.

The Dining Facility and Food Service Kitchen was constructed to achieve this goal at WCF as well as to provide a work line opportunity for the inmates. In addition to serving the inmate population, the kitchen currently prepares food delivered through the "Meals on Wheels" program to the elderly. Due to the limited availability of water and wastewater treatment capacity, however, the PSD is considering relocation of food preparation to the State's Waimano Training School and Hospital. Inmates would be transported on a daily basis to work in the kitchen at that facility.

Commissary

Goal: The PSD's goal is to provide inmates with the opportunity to purchase items that are not provided by the facility, including cigarettes, snack foods, magazines and newspapers, and toiletries. Space for commissary items will be provided at each facility where the inmate population is large enough to justify commissary storage. Where the inmate population is too small for an in-house commissary operation, a local vendor will provide this service. All inmates in the PSD system will be given equal opportunity to purchase commissary items.

The Commissary in the Central Control Facility provides an area where inmates may place their orders and pick-up commissary items.

Laundry

Goal: The PSD's goal is to ensure the right of all inmates to a healthy environment. Laundry services will provide inmates with clean clothing and towels daily. Bedding should be laundered at least weekly. Facilities should provide cleaning and decontamination of mattresses, bedding, and clothing before reissue.

Although the PSD's stated intent in the 1991 Plan is to "Furnish each facility with sufficient laundry equipment to allow regular exchanges for clean bedding, clothing, linen and towels," the limited availability of water and wastewater treatment at the WCF requires laundry services to be provided at the Halawa Correctional Center.

1.4.2 Preliminary Engineering Report - Waiawa Correctional Facility Interim Infrastructure Improvements

In October 1996, the DAGS issued a *Preliminary Engineering Report for Interim Infrastructure Improvements at WCF*. Prepared by M&E Pacific, Inc., the report identified various infrastructure deficiencies, particularly with respect to water and wastewater, based on a projected inmate population of 334, a corrections staff of 100, fire protection requirements and

agricultural irrigation needs. A number of improvements were recommended. Several of the major improvements pertaining to water and wastewater are intended as interim measures until the WCF can be served by municipal water and wastewater facilities. Currently, these services are not available. The planned Gentry Waiawa development will eventually extend service lines to the WCF. At this time, there is no schedule for hooking-up WCF to the municipal systems.

1.5 Project Components

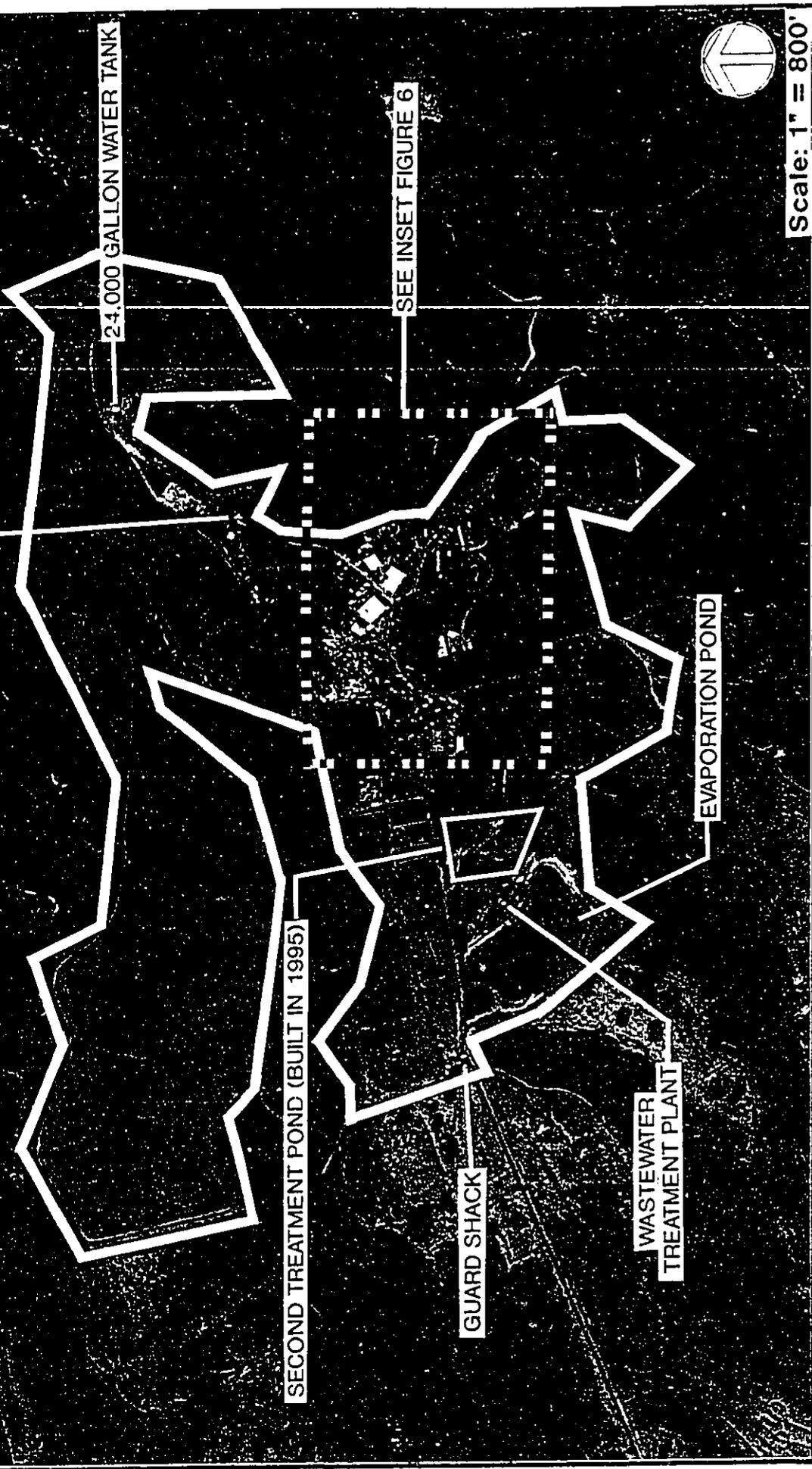
The components of the proposed action fall into three general categories: 1) Facilities built since 1985; 2) Interim infrastructure facilities currently under construction; 3) The planned 200-bed addition (See aforementioned Table 1).

1.5.1 Facilities Built Since 1985

After acquiring the property in 1985, the PSD converted the existing military structures to establish a 150-bed minimum-security correction facility. This conversion provided 30 beds more than the 120-bed conversion discussed in the 1985 environmental assessment (EA) prepared by DAGS. Over the subsequent twelve years, the following facilities were constructed that were not mentioned in the 1985 EA (See Figures 5 and 6):

1. A 480-square foot Guard Shack at the front gate in 1986;
2. A single-story, 2,432-square foot Medical Services Building constructed in 1987;
3. A single-story, 7,980-square foot Inmate Dining Facility, including Food Service Kitchen, constructed in 1987;
4. A 30,000-gallon per day capacity Complete-Mix Activated Sludge Wastewater Treatment system in 1987, including lift stations (pumps) and a lined evaporation pond;
5. A single-story, 7,344-square foot Educational Building with Library constructed in 1988;

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Scale: 1" = 800'

Fig. 5

**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

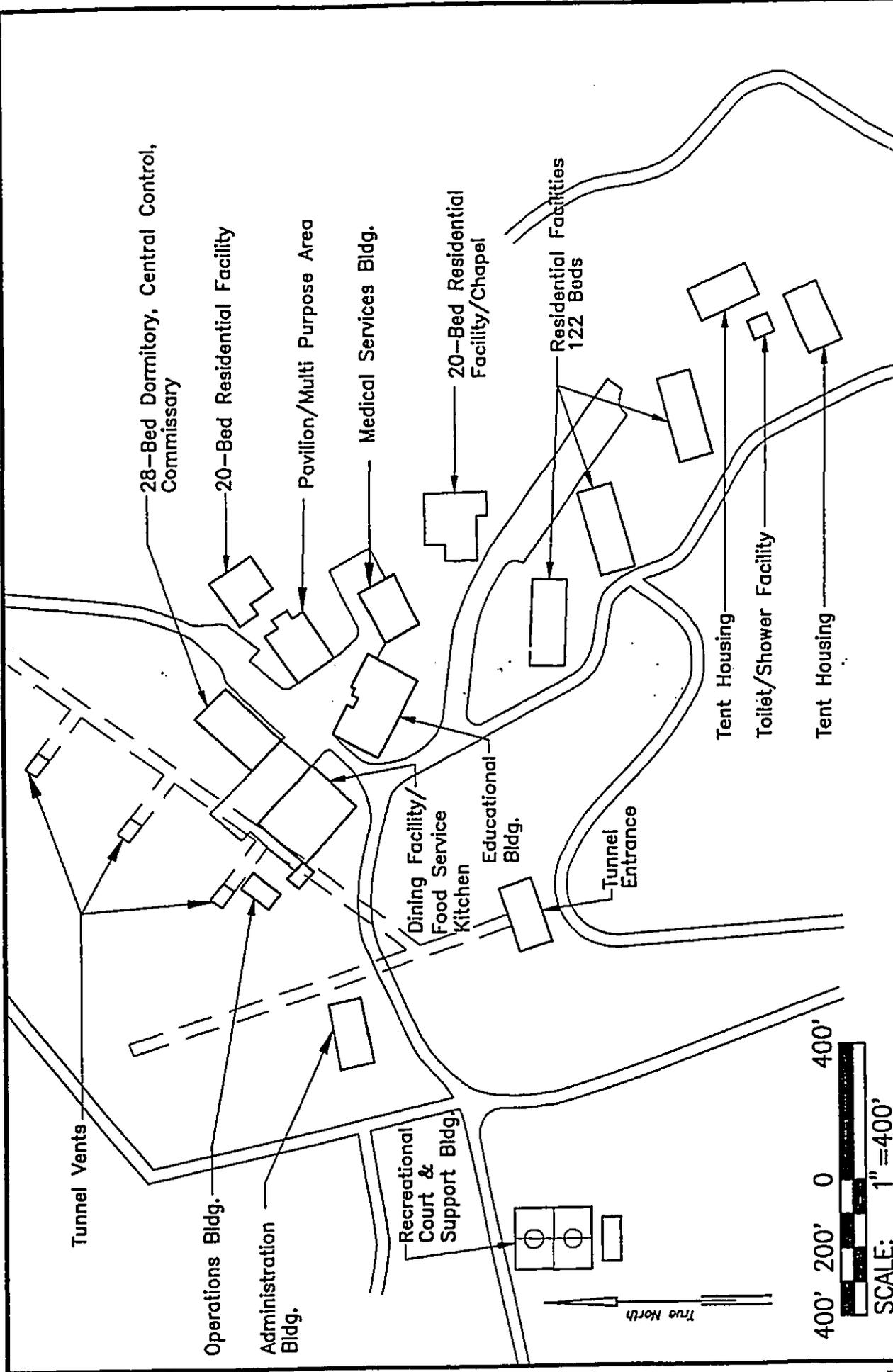
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Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES, STATE OF HAWAII

Prepared by:
WILSON OKAMOTO &
ASSOCIATES, INC.

August 1992

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**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

**INSET
AERIAL PHOTO - 1992**

Fig. 6

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6. A pavilion and multi-purpose area constructed in 1988 and used by the Operations Section;
7. A Recreational Court and 1,200-square foot support building constructed in 1988;
8. A 1,488-square foot Chapel constructed in 1988;
9. A 1,350-square foot Operations Building constructed in 1989;
10. Conversion of the evaporation pond to an unlined seepage pond and excavation of a nearby second seepage pond;
11. A 3,050-square foot Administrative Building constructed in 1995.
12. Conversion of an existing building in 1995 to a 20-bed residential facility;
13. A 5,000-square foot tent and a toilet/shower building to house 50 inmates erected in 1996;
14. A 4,000-square foot tent and six portable toilets to house 40 Domestic Violence inmates erected in 1997;
15. Conversion of the Administration Building (former Commanding Officers Quarters) in 1997 to a 20-bed residential facility;
16. A 1,148-square foot Staff Support Facility constructed next to the Guard Shack in 1997;
17. Various equipment storage structures and overhead structures sheltering agricultural vehicles and equipment;
18. Various water treatment system improvements for processing water drawn from the Waiahole Ditch and distribution system for the newly constructed facilities;

19. Various water distribution and wastewater collection lines to serve the existing and newly constructed facilities;
20. Various electrical power and communication system improvements; and
21. Various roadway pavement and parking area improvements.

The cost of these various improvements is unavailable. Inasmuch as substantial portions of many of these facilities were constructed by the inmates as well as the National Guard, there is no clear accounting of the labor costs involved.

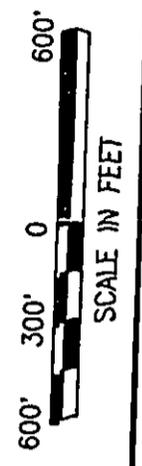
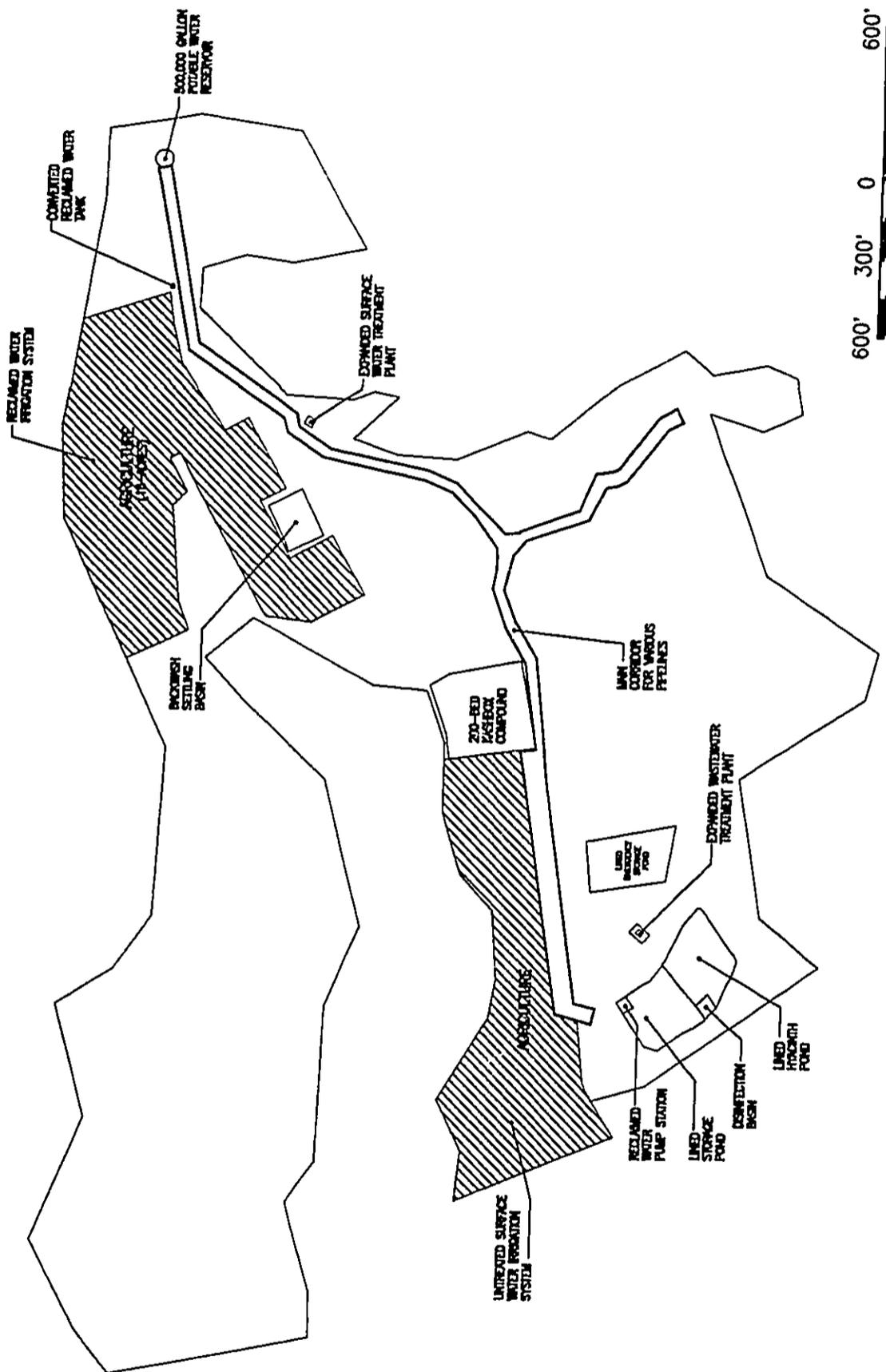
1.5.2 Interim Infrastructure Facilities Currently Under Construction

Based upon the October 1996 *Preliminary Engineering Report - WCF Interim Infrastructure Improvements* a number of infrastructure improvements were proposed, some of which are currently under construction (See Figure 7). As mentioned previously, improvements pertaining to potable water and wastewater, treatment and reuse are intended to serve the WCF on an interim basis until the WCF can be served by municipal water and wastewater facilities. Infrastructure improvements include:

1. Water System improvements required to accommodate the projected inmate, staff, fire flow and irrigation demand. It is anticipated that the domestic water requirements for WCF will be met in the future through the municipal water system. Improvements include:
 - a. Expansion of the water filtration system capacity to process up to 73,440 gallons per day of potable water (this is an interim facility);
 - b. Modification of the water filtration system backwash process with disposal of backwash redirected from the sewer system into a new settling basin (this is an interim facility);

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True North



**WAIAWA
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Fig. 7

INTERIM INFRASTRUCTURE IMPROVEMENTS

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- c. A new 500,000 gallon steel potable water storage tank to accommodate domestic demand and fire flow requirements;
 - d. Installation of a 12-inch water line and new fire hydrants spaced at 250 feet to provide fire protection for all occupied structures except the Guard House and Staff Support Facility near the front gate; and
 - e. Modifications to the existing untreated surface water distribution system to meet a projected future demand of up to 67,500 gallons per day for up to 10 acres of crop production.
2. Wastewater System improvements include those required to accommodate the projected inmate population and correction facility staff. All improvements are interim until the WCF can be served by the municipal wastewater collection system. Notably, the design of the wastewater treatment system includes provisions for reclaiming the water and reusing it for irrigating approximately 16 acres of trees, crops and grass such as California Grass. The quality of the reclaimed water will meet the standards of the State Department of Health's *Guidelines for the Treatment and Use of Reclaimed Water*, specifically the R-2 classification. Proposed improvements include:
- a. Upgrading the existing wastewater treatment plant to efficiently process an average daily flow of 56,100 gallons of sewage.
 - b. Conversion of the larger existing seepage pond on the west side of the wastewater treatment plant into a treatment and storage pond. The existing pond will be lined and divided by a weir with the southern portion stocked with water hyacinths (or other floating aquatic vegetation) to provide biological reduction of organics. The floating hyacinths will also limit light and, hence, algae growth and associated biological oxygen demand (BOD). Treated effluent overflowing the weir will enter a disinfection basin to be treated with chlorine before entering the polishing/storage section. A pump station will transmit the reclaimed water to the existing 24,000-gallon water tank. The pond is designed to accommodate

emergency discharges of untreated and partially treated wastewater in the event of a plant upset. The water reclamation system is designed to provide up to 20-days of storage during wet-weather conditions when reclaimed water may not be applied.

- c. Use of a smaller existing unlined seepage pond on the east side of the wastewater treatment plant to provide emergency temporary storage for fully treated reclaimed water. Inasmuch as the water reclamation system will provide for up to 20-days of storage during wet-weather conditions, the storage pond would rarely, if ever, be used. The pond will remain unlined since it would normally be empty and sunlight would damage the exposed liner.
 - d. Installation of approximately 3,000 feet of 3-inch forcemain leading from the storage pond to the existing 24,000 gallon water tank which will be converted from potable to reclaimed (non-potable) water storage.
 - e. Development of a 16-acre agricultural area to accommodate the projected disposal of 56,100 gallons per day of reclaimed water. The area will be planted with species such as pine trees, papayas, bananas and grass such as California grass.
 - f. Development of a reclaimed water reuse system, including monitoring, to assure proper reuse practices. Specific provisions include continuous flow measurement and record keeping, continuous on-line disinfection, installation of two lysimeters to monitor any percolation of reclaimed water below the root zone, quarterly analysis of reclaimed water for nitrates and TDS (total dissolved solids), and five samplings per month to monitor fecal coliform (fecal bacteria).
3. Electrical System improvements will primarily involve hooking-up the proposed 200-bed KASHBOX Compound to the existing system serving WCF. No off-site improvements will be required. All electrical improvements will utilize the existing on-site utility poles.

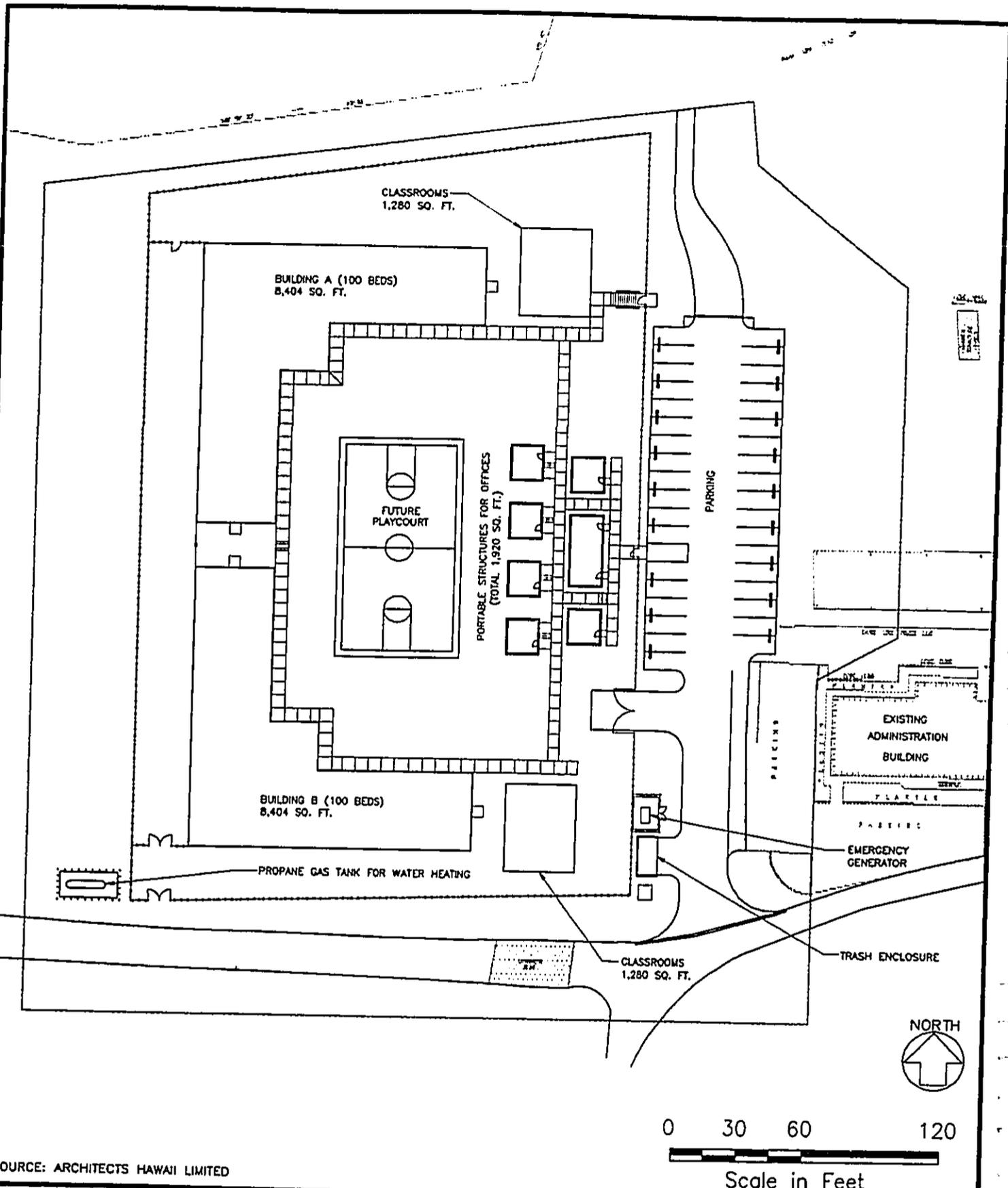
4. Communication System improvements (primarily telephone) will be required within the WCF among the various operational areas. A new cable providing more service connections will be required. All improvements will utilize the existing utility poles on-site.
5. Television System will continue to be off-the-air as there is no cable service to the WCF. At some future date, the development of Gentry Waiawa will extend cable service to the vicinity of WCF.

The on-going construction of the interim infrastructure improvements was initiated on May 12, 1997 and is estimated to be completed in March, 1998. The construction cost of the interim infrastructure improvements is estimated to be \$1.3 million, of which State funds account for approximately \$1 million and Federal funds account for approximately \$0.3 million.

1.5.3 200-Bed Addition

The proposed 200-bed KASHBOX Compound will be comprised of the following components (See Figures 8 through 10):

1. Two mirror-image L-shaped buildings, currently referred to as Building A and Building B, each providing 100-beds within approximately 8,404 square feet of floor area. Each of the two wings will contain sleeping areas while the central area will contain restrooms and showers as well as two day rooms and support areas;
2. Future play court (basketball) between Buildings A and B;
3. Two classroom areas of approximately 1,280 square feet each that are currently envisioned to be occupied by four shipping container modules;
4. Seven office structures which are converted shelters formerly used to house the homeless;
5. An approximately 37-stall at-grade parking lot and access driveways; and
6. Chain-link fencing surrounding the facility.



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SOURCE: ARCHITECTS HAWAII LIMITED

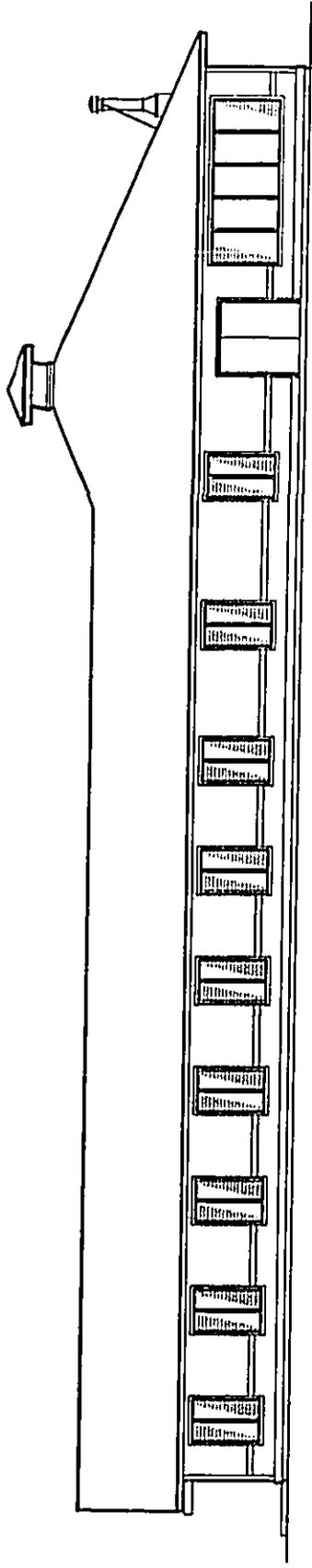
**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

**200-BED KASHBOX COMPOUND
SITE PLAN**

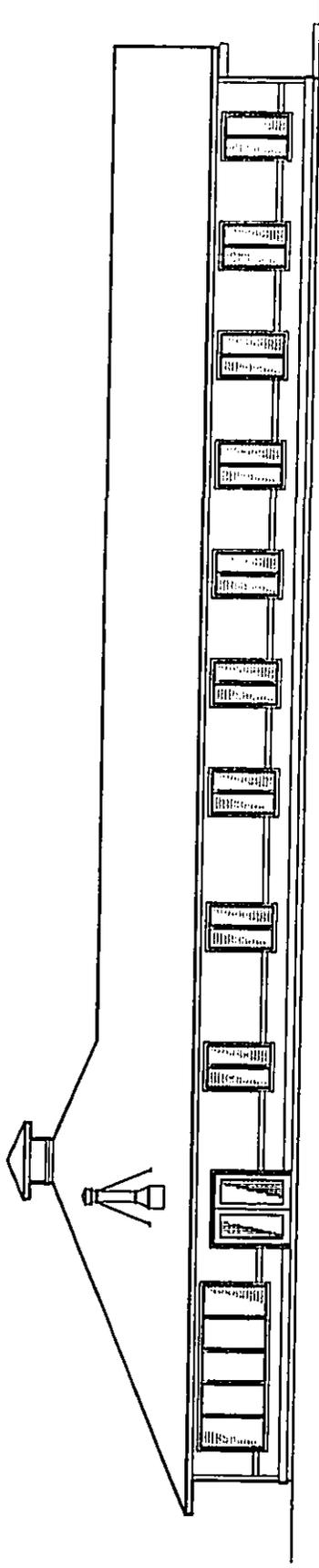
Fig. 8

Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Prepared by:
WILSON OKAMOTO &
ASSOCIATES, INC.



**BUILDING 'A'
NORTH ELEVATION**
SCALE: 1/8" = 1'-0"



**BUILDING 'A'
WEST ELEVATION**
SCALE: 1/8" = 1'-0"

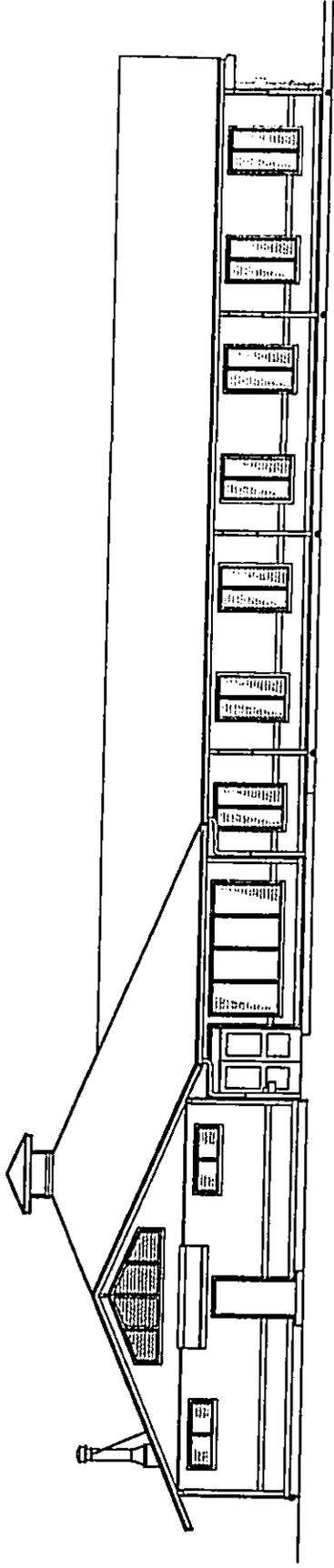
SOURCE: ARCHITECTS HAWAII LIMITED

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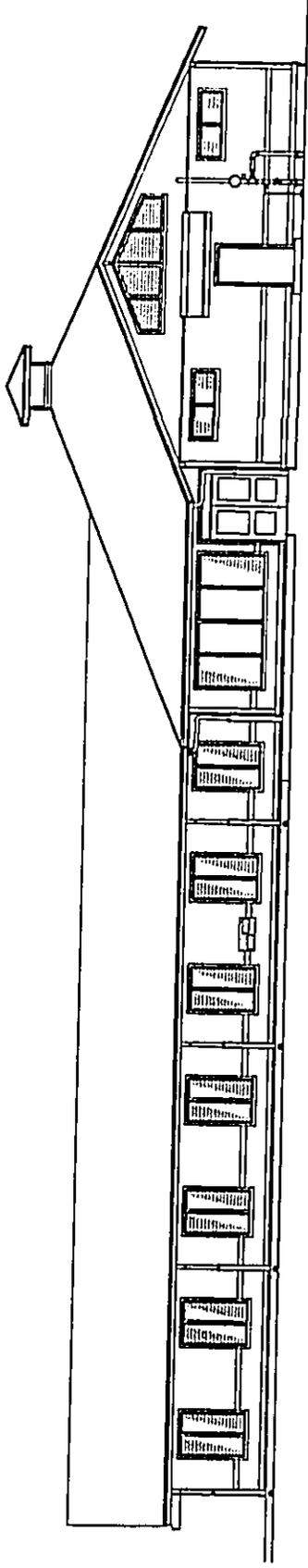
Prepared for:
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Fig. 9

Prepared by:
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**BUILDING 'A'
SOUTH ELEVATION**
SCALE: 1/8" = 1'-0"



**BUILDING 'A'
EAST ELEVATION**
SCALE: 1/8" = 1'-0"

SOURCE: ARCHITECTS HAWAII LIMITED

**WAIAWA
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Fig. 10

BUILDING "A" EXTERIOR ELEVATIONS

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The electrical design for the 200-bed KASHBOX facility meets the Hawaii Model Energy Code. The main housing structure will be naturally ventilated with ceiling fans. Only the classroom structures, which are modified storage containers, will be air-conditioned. The toilets and urinals will be low flush fixtures and the lavatories, sinks and shower heads will have flow restrictors.

Construction of the 200-bed KASHBOX facility is anticipated to be begin in January, 1998 and should be completed approximately one year thereafter. The 200-bed KASHBOX facility is estimated to cost \$2.4 million, of which State funds account for approximately \$0.5 million, and Federal funds account for approximately \$1.9 million.

2. DESCRIPTION OF THE EXISTING ENVIRONMENT, IMPACTS, AND MITIGATION MEASURES

The following is an assessment of the existing environment, potential impacts, and measures to mitigate potential impacts resulting from the various improvements.

2.1 Climate

The climate of the Waipio-Ewa area of the Ewa district is cool with moderate rainfall. Average temperatures range from a low of approximately 70 degrees in the coolest month, to a high of approximately 79 degrees in the warmest month. Average annual rainfall is about 40 inches. Light northeasterly trade winds of about 12 knots are present most of the year.

Impacts

The past, on-going and planned improvements at WCF have not and will not impact the area's general climate.

2.2 Geology and Topography

The island of Oahu is a volcanic doublet formed by the Waianae Range to the west and the younger Koolau Range to the east. Both are the remnants of great shield volcanoes, but the term "range" indicates that they have lost most of the original shield outlines and are now long narrow ridges shaped largely by erosion.

The WCF is located on a broad ridge in the western slopes of the Koolau Range at a mean elevation of 800 feet. The physiographic classification of the area is the Kawailoa deeply dissected upland, which consists of slopes incised by large deep valleys where some ridge crests reflect the former slope of the original Koolau Volcano. The WCF site is underlain by rocks of the Koolau Volcanic Series. These rocks were formed by a rapid succession of pahoehoe and aa flows accompanying the formation of the main shield of the Koolau Volcano. The basalt

exceeds 3,500 feet in thickness and the individual beds have dips as steep as 15 degrees. Its high permeability accounts for it being one of the more significant aquifers of Oahu.

Impacts and Mitigation Measures

The past, on-going and planned improvements at WCF have not and are not anticipated to impact the geology of the site. Grading and excavation required for the construction of structure foundations, installation of underground pipelines, and construction of the ponds has and will have an insignificant impact on the topography of the site. In most cases, excavated areas have and will be built over, paved over, or backfilled to its previous contours. To achieve required elevations for structures, grading has and will slightly alter the topography in the immediate vicinity of the structures. Similarly, the excavation of the ponds has altered the topography in their immediate vicinity.

2.3 Soils

According to the U.S. Department of Agriculture Soil Conservation Service, within the project site boundaries most of the area is covered by soils of the Leilehua Series (LeB and LeC) and Manana Series (MoB and MoC).

Soils of the Leilehua Series are well drained soils found in the uplands of Oahu. These soils developed in material weathered from basic igneous rock. They are gently to moderately sloping and found at elevations of up to 1,200 feet in areas with rainfall from 60 to 80 inches per year. Soils in the Manana Series are well drained soils also found in the uplands of Oahu. These soils developed in material weathered from basic igneous rock. They are gently sloping to steep and found at elevations ranging from 500 to 1,200 feet in areas with rainfall from 40 to 60 inches per year.

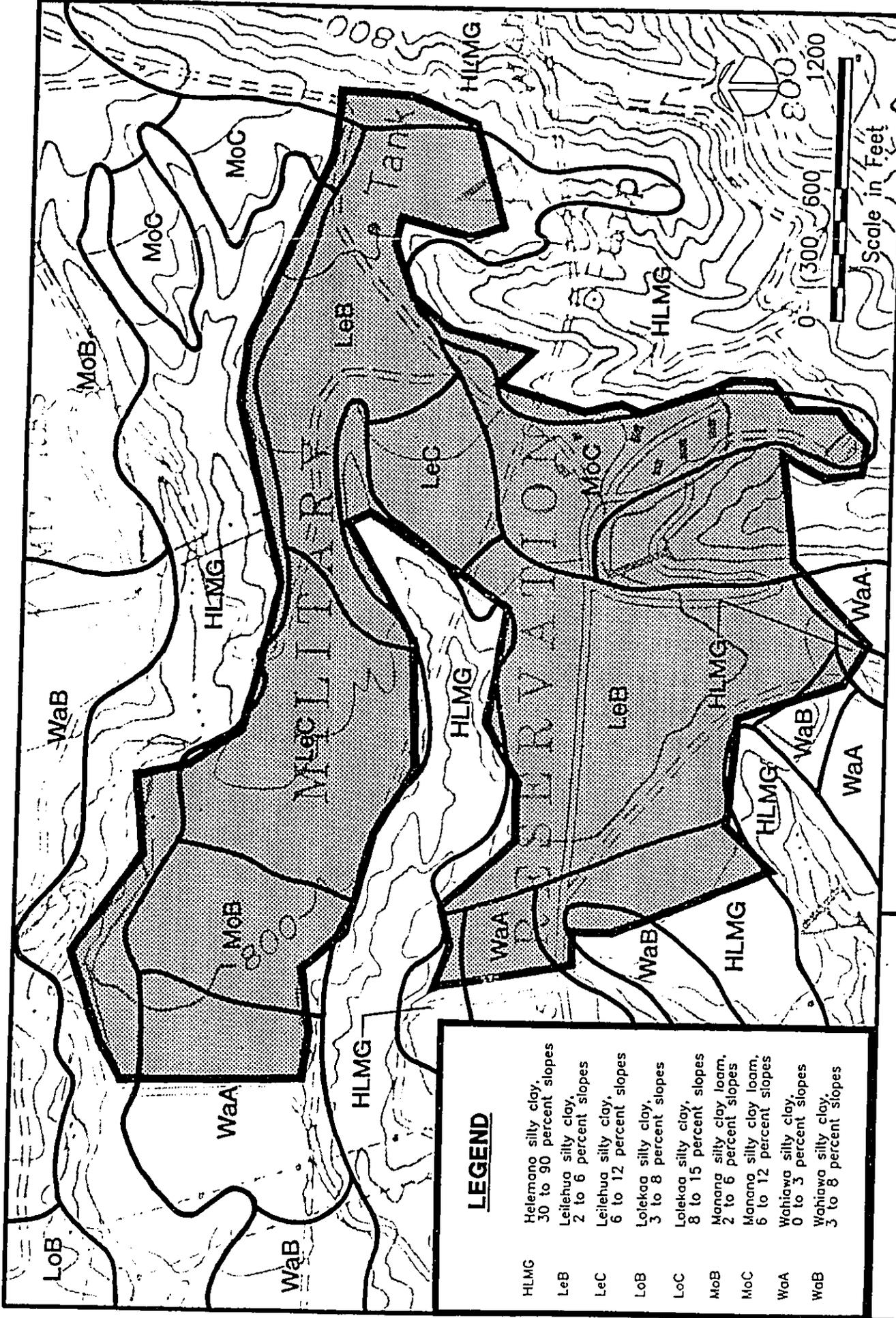
The portion of the WCF on which most of the proposed construction is to occur is classified as Leilehua silty clay with 2 to 6 percent slopes (LeB). This soil occurs as broad areas, as well as narrow areas bordered by gulches. The surface layer is dark reddish-brown silty clay about 12 inches thick. It contains concentrations of heavy minerals. The subsoil, about 36 inches

thick, is dark reddish brown and dusky-red silty clay and clay that has subangular blocky structure. The substratum is dark reddish-brown clay mixed with weathered gravel. Permeability is moderately rapid. Runoff is slow, and the erosion hazard is slight. The available water capacity is about 1.3 inches per foot of soil. The soil is extremely acid throughout the profile (See Figure 11). Other soils on the project site are:

1. The Leilehua silty clay, with 6 to 12 percent slopes (LeC) which is similar in profile to the LeB. Runoff is medium, the erosion hazard is moderate and workability is slightly difficult because of the slope. This soil is used for sugarcane, pineapple and pasture.
2. The Manana silty clay loam (MoC) with 6 to 12 percent slopes. This soil is on smooth slopes in the uplands. The surface layer is dark reddish-brown silty clay loam, about 8 inches thick. The subsoil, about 42 inches thick, is dusky-red, dark reddish-brown and dark reddish-brown silty clay that has subangular blocky structures. A nonporous, panlike sheet, 1/8 inch to 1/4 inch thick, occurs in the subsoil at depths ranging from 15 to 50 inches. The substratum is soft, weathered basic igneous rock. The soil is very strongly acid in the surface layer and very strongly to extremely acid in the subsoil. Permeability is moderately rapid above the pan and moderate below. Runoff is medium, and the erosion hazard is moderate. The available water capacity is about 1.2 inches per foot in the surface layer and 1.3 inches per foot in the subsoil.
3. The Manana silty clay loam with 2 to 6 percent slopes (MoB) which is similar in profile to the MoC, however, runoff is slow and the erosion hazard is slight. This soil is used for sugarcane, pineapple, and pasture.

Impacts and Mitigation Measures

The past, on-going and planned improvements at WCF have not and are not anticipated to significantly impact the soils at the project site. Grading and excavation required for the construction of structure foundations, installation of underground pipelines, and construction of the ponds have not resulted in any observable erosion problems.



LEGEND

HLMG	Helemano silty clay, 30 to 90 percent slopes
LeB	Leilehua silty clay, 2 to 6 percent slopes
LeC	Leilehua silty clay, 6 to 12 percent slopes
LoB	Lolekaa silty clay, 3 to 8 percent slopes
LoC	Lolekaa silty clay, 8 to 15 percent slopes
MoB	Manana silty clay loam, 2 to 6 percent slopes
MoC	Manana silty clay loam, 6 to 12 percent slopes
WaA	Wahiawa silty clay, 0 to 3 percent slopes
WaB	Wahiawa silty clay, 3 to 8 percent slopes

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Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES, STATE OF HAWAII

SOILS MAP

Fig. 11

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Similarly, such problems are not anticipated to result from on-going infrastructure improvements and the proposed construction of the 200-bed KASHBOX Compound.

2.4 Groundwater

The WCF overlies the Waipahu-Waiawa aquifer, one of five systems within the Pearl Harbor aquifer sector (See Figure 12). There are several wells within this aquifer currently producing potable water, among these are the City and County of Honolulu Board of Water Supply's (BWS) Waipio Heights Wells III (State Well Nos. 2659-02 and 03) and Waipio Heights Wells II (State Well Nos. 2500-01 and 02) and the U.S. Navy's Waiawa Water Shaft (State Well No. 2558-10) (See Figure 13). New wells have also been constructed within 400 feet of the southwest boundary of the WCF, near the entrance gate. These wells (State Well Nos. 2658-04 and 05) were constructed by the Gentry Company and are planned to be dedicated to the City and County Board of Water Supply for production to serve the planned Gentry Waiawa development.

The BWS's Waipio Heights Wells III lie approximately two miles west of the WCF and the Waipio Heights Wells II lie approximately three miles to the southwest. In a study entitled *A Demonstration Project to Estimate the Vulnerability of Central Oahu's Groundwater to Anthropogenic Contaminants* (October 20, 1995), the U.S. Environmental Protection Agency and the State of Hawaii Department of Health developed a method to determine the cumulative vulnerability of groundwater to point and non-point sources of contamination. The study identified wellhead protection areas for groundwater sources within the study area based on documented incidences of drinking water contamination. The wellhead protection area encompassing Waipio Heights Wells III and II is bounded on the east by an approximately north-south line that is approximately 1.5 miles east of the WCF. According to the study, groundwater flow in the region is principally southward toward Pearl Harbor.

The southerly direction of groundwater flow is supported by a demonstrated relationship between the aquifer underlying the WCF and the U.S. Navy's Waiawa Water Shaft, which is located approximately 2.1 miles to the south of WCF. The Shaft supplies approximately 15 million gallons per day (mgd) of potable water to the Pearl Harbor Shipyard, Hickam Air Force Base, the Moanalua Shopping Center, and various military housing installations. Concern over

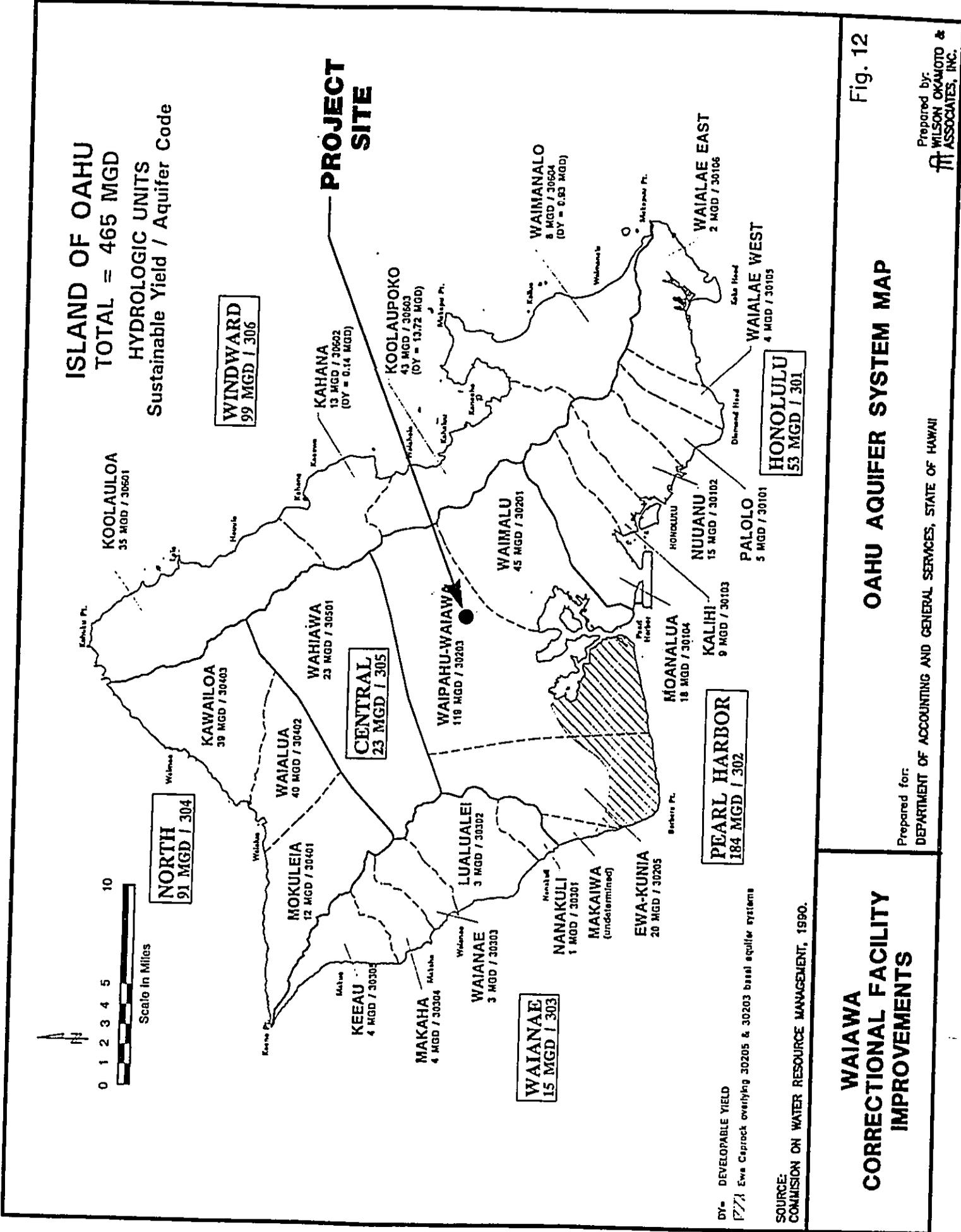
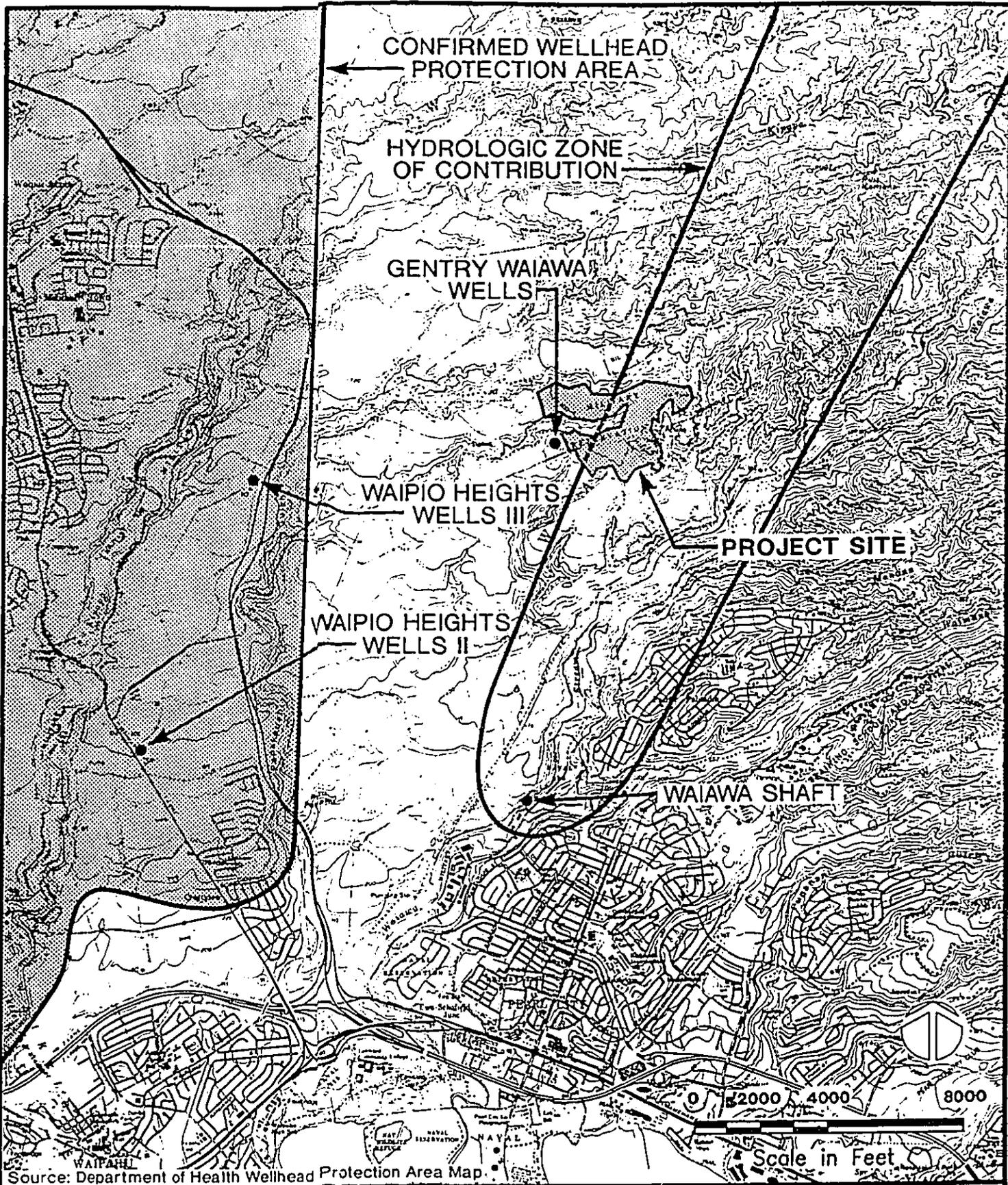


Fig. 12

OAHU AQUIFER SYSTEM MAP

**WAIKALOALO
CORRECTIONAL FACILITY
IMPROVEMENTS**

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Source: Department of Health Wellhead Protection Area Map.

**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

**POTABLE WELLS AND
PROTECTION ZONES**

Fig. 13

Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Prepared by:
WILSON OKAMOTO &
ASSOCIATES, INC.

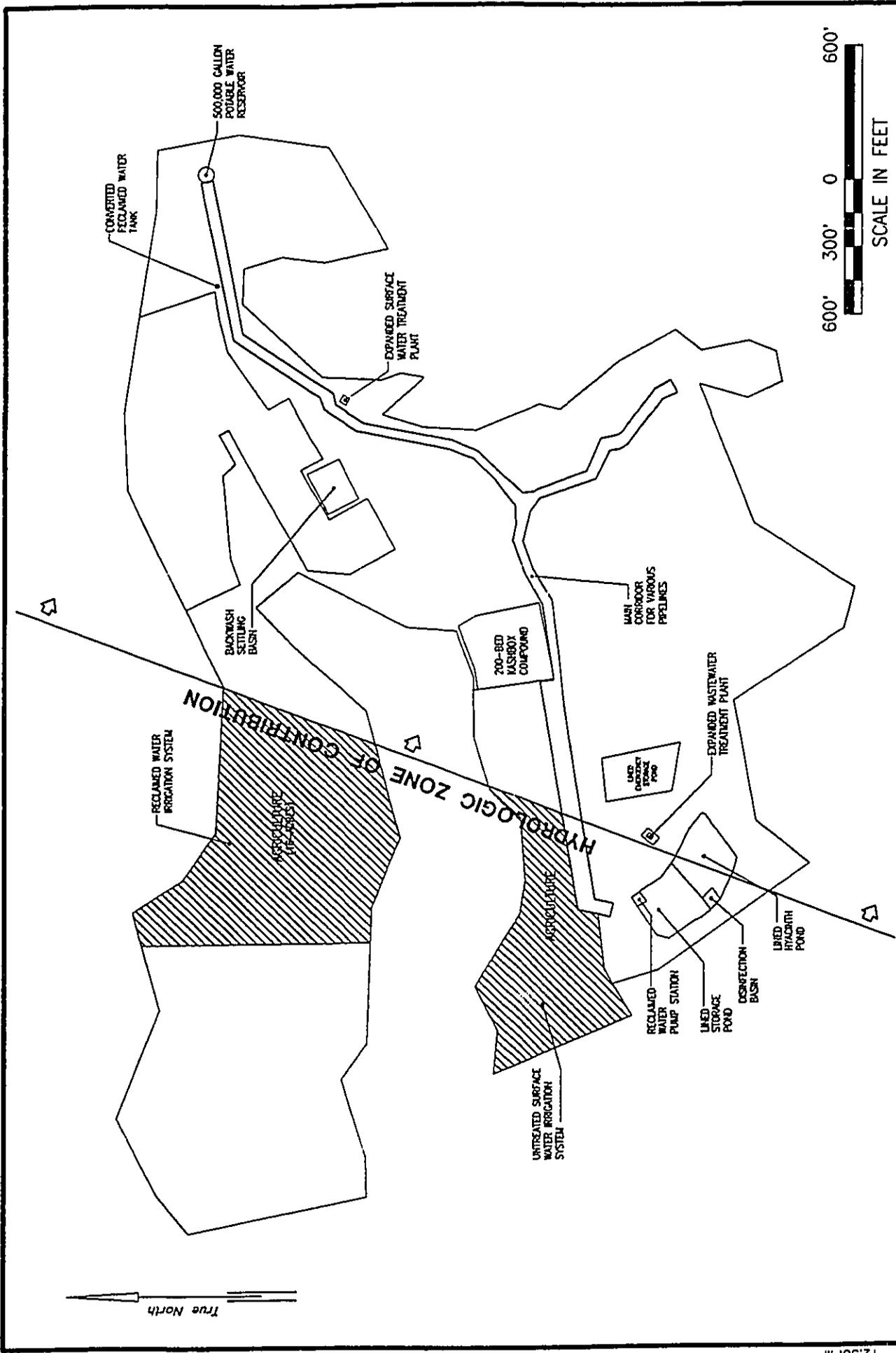
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fluctuations in chloride levels in the Waiawa Water Shaft prompted the Navy to co-fund a study with the U.S. Geological Survey to examine the effects of sugarcane irrigation practices on the Shaft. The resulting report entitled *"The Effect of Pumpage, Irrigation Return and Regional Groundwater Flow on the Water Quality at Waiawa Water Shaft, Oahu, Hawaii"* indicated that the Waiawa Water Shaft is vulnerable to contamination from agricultural activities on Waiawa lands. The Department of Health (DOH), in a special surveillance to nematicides (pesticides targeting nematodes) discovered trace levels of dibromochloropropane (DBCP) and trichloropropane (TCP) in the Shaft. While the levels found would not appear to pose a significant health threat, the presence of these chemicals demonstrated the Shaft's vulnerability to contamination.

In 1987, Gentry Pacific Ltd. petitioned the State Land Use Commission (Docket No. A87-610) to reclassify approximately 1,395 acres of land lying to the south of WCF from the Agricultural to Urban designation. The Urban designation is a land use entitlement required for the proposed Gentry Waiawa development. In response to DOH's concern that urban biocides could contaminate the Waiawa Water Shaft, the Land Use Commission required a study to define the hydrologic zone of contribution of water which is withdrawn from the Shaft. The zone of contribution was delineated based on the recommendations of an Ad Hoc Committee of technical experts from the U.S. Geological Survey, the University of Hawaii, the City and County of Honolulu Board of Water Supply, and the State Department of Land and Natural Resources and Department of Health. Portions of the Urban district designation granted to the Gentry Waiawa development lie with the zone of contribution. Any development within these areas is subject to approval by the State Department of Health.

The zone of contribution overlies a portion of the WCF as shown in Figure 13 and 14. Most of the structures built by the State at WCF preceded the delineation of the zone of contribution. The interim infrastructure improvements and the 200-bed KASHBOX Compound, however, are located in the zone of contribution and required the approval of the DOH. Among the interim infrastructure improvements, specific facilities approved by the DOH to be built within the zone of contribution are the lined treatment ponds, 500,000 gallon reservoir, unlined emergency reclaimed water storage pond, and various pipelines and pump stations. A 16-acre agricultural area to be irrigated with reclaimed water and an approximately 10-acre agricultural area to be

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



WAIAWA CORRECTIONAL FACILITY IMPROVEMENTS

HYDROLOGIC ZONE OF CONTRIBUTION

Fig. 14

Prepared for:
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irrigated with untreated surface water were also approved. The KASHBOX Compound was allowed because of its strategic location in relation to the Administration Building and other functions that will facilitate maintenance of security and provision of support services.

Impacts and Mitigation Measures

No significant impacts to groundwater resources in the vicinity of the WCF have been observed or are anticipated to occur as a result of construction and operation of the various improvements. In response to the U.S. Navy's objection to any agricultural uses within the hydrologic zone of contribution, including the reuse of reclaimed water for irrigation, the Public Safety Department (PSD) has agreed to relocate its agricultural activities. Neither the 16 acres proposed to be irrigated with reclaimed water nor the area proposed to be irrigated with untreated surface water drawn from the Waiahole Ditch will overlie the hydrologic zone of contribution. No agricultural activities will occur within the zone.

To assure that potable groundwater sources such as the Navy's Waiawa Water Shaft are not adversely affected, the State Department of Health is requiring that use of reclaimed water comply with its Guidelines for the Treatment and Use of Reclaimed Water (November 22, 1993) which allows the use of secondary treated, disinfected domestic wastewater (R-2 quality water) over potable water aquifers. Reuse under such conditions is scrutinized very closely and a number of conditions are placed on the reclamation project which provides protection to both public health and safety as well as the groundwater.

With regard to the protecting groundwater, the use of R-2 water over a potable aquifer is restricted to application rates with a zero percolation component. This requires that an adequate irrigation area be set aside such that the irrigation rates do not exceed plant/crop consumptive rates. Use of lysimeters within the irrigation areas as well as weather data are used to assure that the project's consumptive rate is not exceeded. Data gathered from monitoring of the site are used to confirm or adjust the irrigation

management practices. A monitoring system, including the lysimeters and existing wells, will detect any potential for the contamination of groundwater.

The DOH's approval is required for the WCF's reclaimed water agricultural irrigation plan. Specific requirements will include continuous flow measurement and record keeping, continuous on-line disinfection, installation of two lysimeters to monitor any percolation of reclaimed water below the root zone, quarterly analysis of reclaimed water for nitrates and TDS (total dissolved solids), and five samplings per month to monitor fecal coliform (fecal bacteria).

The continued use of untreated surface water for irrigation is not anticipated to adversely affect groundwater sources.

2.5 Flood Hazard and Drainage

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Number 150001-0000 (Revised September 30, 1995), the project site is designated Zone D, areas in which flood hazards are undetermined. Due to its location on a broad, sloped ridge of the Koolau Mountain Range, it is unlikely that the site is subject to flooding.

Due to its elevation and distance from shore, the project site is not subject to coastal hazards such as storm waves and tsunami inundation.

The WCF property straddles several natural drainage courses which flow into other drainage courses as well as man-made irrigation systems which eventually converge at Waiawa Stream and discharge into Middle Loch of Pearl Harbor. Most of the developed areas to the south of the property, which includes the converted military structures, the Dining Facility/Food Service Kitchen, Educational Building, Medical Services Building, and Pavilion/Multi-Purpose Area drain southward into either of two adjacent gullies that channel flows into an old agricultural irrigation system. That system leads to the Waiawa Stream mauka of the Interstate H-1 and H-2 interchange. Areas on the southwest portion of the project site, including the wastewater treatment plant and ponds, drain toward the two adjacent gullies that join further downstream

and terminate on the broad Waiawa ridge where infiltration presumably occurs. The topography of the area indicates that any remaining surface flows would enter the Panakauahi Gulch opposite the Crestview community. Panakauahi Gulch, in turn, forms a confluence with Waiawa Stream above the H-1/H-2 interchange. Drainage from the middle and northern portion of the WCF enter gullies leading westward to Panakauahi Gulch makai of Mililani Memorial Park.

Impacts and Mitigation Measures

Toward mitigating potential impacts on drainage courses, management practices will be employed during construction to reduce the potential for siltation and address discharges of chlorine-containing water during hydrotesting of piping systems. These management practices will include the following:

- A temporary silt fence will be installed to prevent sediment-laden runoff from leaving the project site.
- All slopes and exposed areas will be sodded or planted as soon as final grades have been established.
- Water discharged in conjunction with chlorinated hydrotesting will be directed into a temporary retention basin(s) to be constructed by the contractor outside of the construction area but within the project site. If it is determined that such discharges could enter State waterways, the contractor will be responsible for obtaining a National Pollutant Discharge Elimination System (NPDES) permit to allow such discharges prior to testing. Upon completion of testing, the retention basin will be filled and the site restored to the original condition.

The past, on-going and planned improvements at WCF have not and are not anticipated to result in flooding problems. None of the improvements are in low-lying areas that may be subject to ponding during large storms.

The various past, on-going and proposed improvements have and will reduce the area of open land available for rainfall infiltration, but this reduction is insignificant in relation to the large undeveloped watershed within which the WCF is located.

2.6 Flora and Fauna

Currently, vegetation on the project site is predominantly composed of exotic plant species. The most common species are broomsedge, koa-haole and Christmas berry. These species are also dominant in adjacent areas beyond the WCF boundaries. The project site appears to be located in a buffer zone between the predominantly native areas of the higher elevations and the disturbed lower slopes. It is highly unlikely that any rare or endangered native species would occupy the project site.

Mammal species likely to be found in the area include mongoose, feral cats, and mice and rats. Wild boar are occasionally observed according to WCF staff. Avifauna that may be found in the area include the myna, doves, sparrows, finches, and cardinals.

Impacts and Mitigation Measures

There are no known endangered or threatened species inhabiting the developed areas of WCF. While some loss of habitat has and will result from construction activities, none of the species affected are known to be threatened or endangered.

2.7 Archaeological/Historic Resources

An Archaeological Assessment for the proposed project was conducted by Cultural Surveys Hawaii on September 24, 1997 and is attached as Appendix A.

The assessment was conducted to locate archaeological resources within the project area. The study included a literature search including a review of archaeological reports related to the project area, and a field inspection of the project site to assess current conditions and the

likelihood of extant surface and subsurface archaeological sites. The survey inspected locations of proposed and in-progress facilities improvements.

No historic sites were observed within the project site. The potential for subsurface archaeological resources within the proposed project area are unlikely due to the previous commercial pineapple and sugar cane cultivation and military uses which would likely have destroyed any cultural remains that may have existed.

Impacts and Mitigation Measures

In a letter dated November 15, 1997, the Historic Preservation Division of the Department of Land and Natural Resources expressed the belief "that the impacts from the previous improvements and the current 200-bed KASHBOX project have 'no effect' on significant historic resources." (See Section 8 - Consultation) Should any archaeological, cultural or historic sites be uncovered during construction activities, all work in the vicinity will cease and the State of Hawaii Department of Land and Natural Resources Historic Preservation Officer will be notified immediately.

2.8 Traffic

Vehicular access to the WCF is gained from both north and south-bound Interstate Route H-2 via the Ka Uka Boulevard off-ramps. From north-bound Ka Uka Boulevard (toward Mililani Memorial Park and WCF), Plantation Road leads approximately 1.5 miles to the WCF. Due to the absence of any significant traffic generating land uses in the vicinity of the WCF, traffic along Ka Uka Boulevard to the WCF is generally very light at all times of day.

Impacts and Mitigation Measures

During construction, any temporary increase in traffic volume that could result from the movement of construction-related vehicles is unlikely to inconvenience motorists in the immediate vicinity of the project site. The Plantation Road extension of Ka Uka Boulevard provides vehicular access solely to the WCF. If necessary to mitigate

potential traffic congestion and delays on Interstate Route H-2, the movement of construction vehicles can be restricted during the morning and afternoon peak traffic hours. Such restrictions will probably be unnecessary, however, since peak-hour traffic is in the opposite direction of traffic going from Interstate Route H-1 to WCF. Flagmen or police officers will be employed, as needed, to direct traffic during the transport of larger construction vehicles to minimize traffic congestion. It is anticipated that all construction-related vehicles will park within the project site and, thus, not affect street parking or traffic flow in the vicinity.

In the long-term, the proposed 200-bed KASHBOX Compound will increase staffing from the current total of 98 (with a daily maximum staff of 45) to a projected total staff 142 (with a daily maximum staff of 60). The increased staffing will increase traffic to and from the WCF during shift changes. In addition, traffic associated with the transportation of inmates and delivery of supplies and materials will also increase, however, this increase will be minuscule in relation to the volume of traffic along Interstate Route H-2.

The impact upon peak-hour traffic will be insignificant as most traffic associated with the WCF will occur during off-peak hours. Administrative and other day-staff commuting during peak hours between the WCF and major population centers to the south, including Honolulu, Pearl City, Waipahu, Ewa, and Kapolei, would be travelling in the opposite direction of peak traffic and, therefore, would have little impact.

2.9 Noise

Noise in the vicinity of the project site is predominantly attributable to vehicular traffic traveling to and from the project site along Interstate H-2, Ka Uka Boulevard, Plantation Road. On-site agricultural and other operations within the WCF also generate noise. Isolated at the foot of the Ewa Forest Reserve, the nearest residential subdivision, Pacific Palisades is located approximately 1.2 miles southeast of the WCF.

Impacts and Mitigation Measures

Noise from construction activities will likely be unavoidable during the entire construction period. Unavoidable construction noise impacts will be mitigated to some degree by the contractor's compliance with provisions of the State DOH Administrative Rules, Chapter 11-46, "Community Noise Control." These rules require a noise permit if noise levels from construction activities are expected to exceed the allowable levels stated in Chapter 11-46. Construction equipment and on-site vehicles requiring an exhaust for gas and air must be equipped with mufflers. Also, the guidelines for the hours of heavy equipment operation and noise curfew times as set forth by the DOH noise control rules must be adhered to.

No significant noise impacts from the operation of the proposed improvements are anticipated. Ambient noise levels in the vicinity of the project site will increase slightly as a result of the associated increase in vehicular activity. No noise impacts upon the nearest residential community is anticipated due to the distance from the project site. Noise impacts on inmates at WCF will be subject to DOH noise control regulations. While noise levels may be a temporary nuisance, it will not pose a health concern.

2.10 Air Quality

Within the immediate vicinity of WCF, vehicular-related emissions are generated from traffic traveling along Interstate H-2, Ka Uka Boulevard and Plantation Road. However, as traffic operates generally well along these roadways throughout the day, and due to isolation of the project site, the associated vehicular emissions do not significantly affect ambient air quality in the area.

Impacts and Mitigation Measures

Potential air quality impacts during construction of the proposed facility will be mitigated by complying with the State of Hawaii DOH Administrative Rules, Title 11, Chapter 60, Air Pollution Control. During the construction phase, two potential types of air pollution

emissions will likely occur: 1) fugitive dust from vehicle movement and soil excavation; and 2) carbon monoxide and nitrogen oxide emissions from on-site construction equipment and from construction workers' vehicles and equipment traveling to and from the project work site. Compliance with State regulations will require adequate measures to control fugitive dust-generating equipment during construction. As may be deemed appropriate, paving and/or re-establishment of vegetated areas early in the construction schedule will also help to control dust. Exhaust emissions from construction vehicles are anticipated to have negligible impact on air quality in the project vicinity as emissions would be relatively small and readily dissipated.

In the long term, the operation of the proposed facility is not anticipated to significantly increase vehicular traffic to the project site and will have no significant impact on air quality in the vicinity.

2.11 Socio-Economic

Population

In 1990, the Central Oahu Development Plan (DP) area had a population of 130,474 or 15.6 percent of the total population for the City and County of Honolulu. Central Oahu will continue to provide moderate residential growth in master planned residential communities, however the regional growth management strategy will allow residential development to continue at a slower rate than in Ewa. The City and County of Honolulu's 2010 preliminary forecast for the Central Oahu DP area projects an increase in population to 169,815 or 17 percent of the island's population.

Economy

At present, Central Oahu has a much higher number of jobs than Ewa does. Within Central Oahu, Wahiawa is by far the largest employment center, reflecting civilian jobs at military bases and the town's role as a service center for military personnel and their dependents, as well as residents of the immediate vicinity and the North Shore. The share of jobs in older communities

such as Wahiawa and Waipahu is expected to decline by 2010, due primarily to the growth of employment in the newer commercial centers of Mililani and Waikele and the relative weakness of the agricultural and military sectors that have traditionally supported the older communities. Most employment for Central Oahu will continue to be located outside of the area, but some new jobs will be created in a revitalized Waipahu and Wahiawa and in commercial centers planned to serve the surrounding residential areas.

Housing

Most of the island's new housing stock is being built in the Ewa and Central Oahu region and this trend is projected to continue over the next couple of decades to accommodate the anticipated population growth. Market forces however, have been favoring residential growth in Central Oahu over Ewa. This may be due more to the substantial existing community core and services that tend to attract new development to Central Oahu. The regional growth management strategy will allow residential development with a greater emphasis on higher density housing to increase affordability, diversify the range of housing types and promote a less automobile-oriented development pattern.

Public Services

Police Protection: The WCF is within the area served by the Honolulu Police Department, District 3, Pearl City Station located approximately 6 miles away at 886 First Street.

Fire Protection: Fire protection service for the WCF is provided by the Honolulu Fire Department, Station 20, the Pearl City Station located approximately 6 miles away at 1100 Waimano Home Road.

Health Care Facilities: The major health care facility closest to the WCF is the St. Francis-West Medical Center located on Fort Weaver Road. Located approximately 6 miles away, St. Francis-West is a full service hospital providing emergency care and a heliport for medivac transport. Other medical facilities located within a 7 mile radius include Pali Momi Medical

Center in Pearlridge, Wahiawa General Hospital and Kaiser Permanente's Punawai Clinic in Waipahu.

Impacts and Mitigation Measures

Population:

The expansion of the WCF since 1985 has increased the inmate population in Central Oahu from the originally 120 to approximately 280. After the establishment of the proposed 200-bed KASHBOX compound, the design and operational capacity of WCF will be 334 inmates. This increase is insignificant in relation to the population in the Central Oahu DP area.

Economy:

The WCF has and will have generally positive economic impacts in the region. During construction of the various improvements, construction jobs created will stimulate that sector of the economy. Direct economic benefits will result from construction expenditures both through the purchase of material from local suppliers and through the employment of local labor. Indirect economic impacts may include benefits to local retail businesses resulting from construction activities.

In the long-term, the expansion of the WCF will create employment through increased staffing and support services as well as result in expenditures for food and other goods through local suppliers to maintain the facility.

Housing:

As a correctional facility, the housing created by the expansion of the WCF is not generally considered part of the State's housing inventory or viewed as having an impact on the availability of housing.

Public Services:

Police Protection: The expansion of WCF has a potential implication on the provision of police protection with respect to inmate escapes. The inmates at WCF, however, pose a low risk to the public as they are in the final stage of their term and are being prepared for release. An inmate who commits a misconduct could be transferred to the Halawa Correctional Facility, a more secure facility which affords inmates fewer privileges than WCF. To qualify for placement at WCF, an inmate must have no more than four years left in his term and is evaluated based upon his:

- mental and emotional stability
- escape history/risk
- behavior record during incarceration
- medical status
- enemies of record

Inasmuch as they are nearing release, the inmates are less likely to risk longer imprisonment by attempting to escape. In the one-year period from October, 1996 to September, 1997 there were seven escapees from Waiawa, all of whom have since been apprehended or have turned themselves in. None of the escapes resulted in harm to any member of the public.

In the long-term, the 200-bed KASHBOX Compound increases the capacity of the prison system to keep offenders off the street by reducing the need for early release due to prison over-crowding. It also offers the opportunity to provide inmates with programs and services to help them adjust their lifestyle prior to being released. These are positive impacts with respect to the ability of the police to protect the public.

In a letter dated October 24, 1997, the Police Department indicated that it does not anticipate any significant impact on its operations as a result of the project (See Section 8 - Consultation).

Fire Protection: The expansion of WCF increases the number of structures within the area served by the Fire Department. On the other hand, the upgraded fire protection being achieved through water system improvements will enhance the ability of the Fire Department to respond to any fire at the WCF. In a letter dated October 29, 1997, the Fire Department indicated that it foresaw no adverse impact on its facilities or services as a result of the project (See Section 8 - Consultation).

Health Care Services: The projected increase in the inmate population and staffing at WCF implies a potentially greater demand on health care services. The WCF has its own health care facility, however, and there is no known shortage of emergency health care services in the region.

2.12 Hazardous Waste

According to WCF staff, there are potentially hazardous materials such as asbestos, lead-based paint, freon and petrochemicals that were left by the Army in the communications tunnel when the facility was abandoned. Removal of such materials could be the responsibility of the Army inasmuch as the WCF appears to be a Formerly Used Defense Site (FUDS) under P.L. 99-190-December 19, 1985.

Impacts and Mitigation Measures

None of the past, on-going or proposed improvements at WCF will disturb any known hazardous materials on site. If such materials are encountered during construction, they will be dealt with in accordance with applicable Federal and State laws and rules.

2.13 Utilities

Water System: The WCF draws surface water from the Waiahole Ditch which traverses WCF in a tunnel. The water is treated on-site for domestic use. Raw surface water is also used for irrigation of agricultural crops.

Sewer System: The project site is served by an on-site wastewater treatment system.

Electricity: Electrical service in the area is provided by Hawaiian Electric Company (HECO). The project site is served by aerial electrical lines leading from Kamehameha Highway.

Telephone: Telephone service in the area is provided by GTE Hawaiian Telephone Company (HTCO). The project site is served by aerial telephone lines leading from Kamehameha Highway.

Gas: BHP Gas Company does not provide gas-line service to the project site.

Cable Television: The project site currently has no cable television service.

Impacts and Mitigation Measures

Water System: The WCF will continue to use surface water from Waiahole Ditch for domestic and irrigation use. Currently, there is no specific withdrawal allotment for WCF, however, an allotment of 0.15 million gallons per day has been requested from the State Commission on Water Resources Management. In the future, when the Gentry Waiawa development is implemented, the WCF will tie into the municipal water system for its domestic water needs. The PSD and DAGS will be discussing the water needs of the WCF with the Gentry Company to assure that adequate design capacity is provided in the Gentry Waiawa development.

Sewer System: The WCF will continue to rely on its on-site wastewater treatment system. Currently under construction is a system to reclaim wastewater for irrigation reuse. The system has been approved by the State Department of Health, including the treatment system and the proposed method of agricultural irrigation reuse. In the future, when the Gentry Waiawa development is implemented, the WCF will tie into the municipal wastewater system for sewage disposal. The PSD and DAGS will be discussing the wastewater needs of the WCF with the Gentry Company to assure that adequate design capacity is provided in the Gentry Waiawa development.

Electricity, Telephone and Cable Television: A proposal for the placement of additional poles and lines that will improve telephone service to the facility is currently pending a utility easement. Cable TV service may become available in the future through the proposed Gentry Waiawa development.

2.14 Aesthetics

Due to its relative isolation, the WCF is not readily visible from areas generally accessible to the public. Most of the structures are single-story and are obscured by the hilly terrain and trees.

Impacts and Mitigation Measures

The facilities constructed at the WCF have had no significant visual impact. The largest proposed structures are the 500,000 gallon potable water reservoir and the 200-bed KASHBOX Compound. Neither facility will be visible from Interstate Route H-2. Due to its size and elevation, the reservoir may be visible in the distance from lower elevations, however, its visual impact would be insignificant.

3. RELATIONSHIP TO PLANS, POLICIES AND CONTROLS

3.1 State Land Use District

The Hawaii Land Use Law of Chapter 205, Hawaii Revised Statutes (HRS), classifies all lands in the State into four land use districts: Urban, Agricultural, Conservation and Rural. The project site is designated within the Agricultural District. Although the correctional facility use is not consistent with the Agricultural classification, the WCF is allowed in the Agricultural district based on its agriculture component.

3.2 City and County of Honolulu General Plan

The General Plan for the City and County of Honolulu (adopted 1977) was amended by the City Council in 1992. The plan is a statement of the long-range social, economic, environmental and design objectives for the general welfare and prosperity of the people of Oahu. The Plan is also a statement of broad policies which facilitate the attainment of the objectives of the plan. Eleven subject areas provide the framework for the City's expression of public policy concerning the needs of the people and functions of government. These areas include population; economic activity; the natural environment; housing; transportation and utilities; energy; physical development and urban design; public safety; health and education; culture and recreation; and government operations and fiscal management. The relationship of the proposed project to the relevant objectives and policies of the General Plan are as follows:

VIII. Public Safety

Objective A: To prevent and control crime and maintain public order.

Policy 2: Provide adequate criminal justice facilities and staffing for City and County law-enforcement agencies.

Policy 9: Encourage the improvement of rehabilitation programs and facilities for criminals and juvenile offenders.

3.3 City and County of Honolulu Development Plan

The City and County of Honolulu's Development Plan (DP) program provides a relatively detailed framework for implementing the objectives and policies of the General Plan on an areawide basis. Eight Development Plans have been adopted covering the entire island. Each Development Plan Ordinance consists of Common Provisions applicable to all Development Plan areas, Special Provisions for each area, Land Use Map, and Public Facilities Map. The DP Land Use Maps depict land use patterns which are consistent with the objectives and policies of the General Plan.

The project site is located within the Central Oahu DP area which encompasses the plateau between the Waianae and the Koolau mountain ranges. The Central Oahu DP area is bounded to the north by the North Shore DP area, to the southeast by the Primary Urban Center DP area, to the southwest by the Ewa DP area and to the west by the Waianae DP area. The Central Oahu DP Land Use Map designates the project site as "Public Facility". The DP Common Provisions identifies public and quasi-public areas as "*those areas designated for general governmental activities; schools, colleges, and universities; airports, harbors, bus yards, and other terminals; major health care facilities; major utility plants and substations; landfill sites, corporation yards, and maintenance yards of public agencies; religious, social, and social services institutions; and other public services.*" The WCF is permitted as a public facility.

DP Special Provisions for Central Oahu

The proposed project is not located within one of the Central Oahu Special Areas, and is consistent with the Central Oahu DP Special Provisions Section 25-5.2.

Central Oahu DP Public Facilities Map

The DP Public Facilities Map identifies public and private proposals for parks, street and highways, major public buildings, utilities, terminals, and drainage. The Central Oahu DP Public Facilities Map designates a privately funded proposed water system, water well and water reservoir with no timing schedule (See Figure 15).

Central Oahu Development Plan Revision Program

The Central Oahu Development Plan (DP) is under review by the City and County of Honolulu's Planning Department as part of the Development Plan Revision Program initiated in 1993. The DP Revision Program entails comprehensive revisions of the eight DPs in response to a 1992 City Charter amendment to change the definition of DPs from "relatively detailed" plans to "conceptual schemes" for implementing General Plan development objectives and policies.

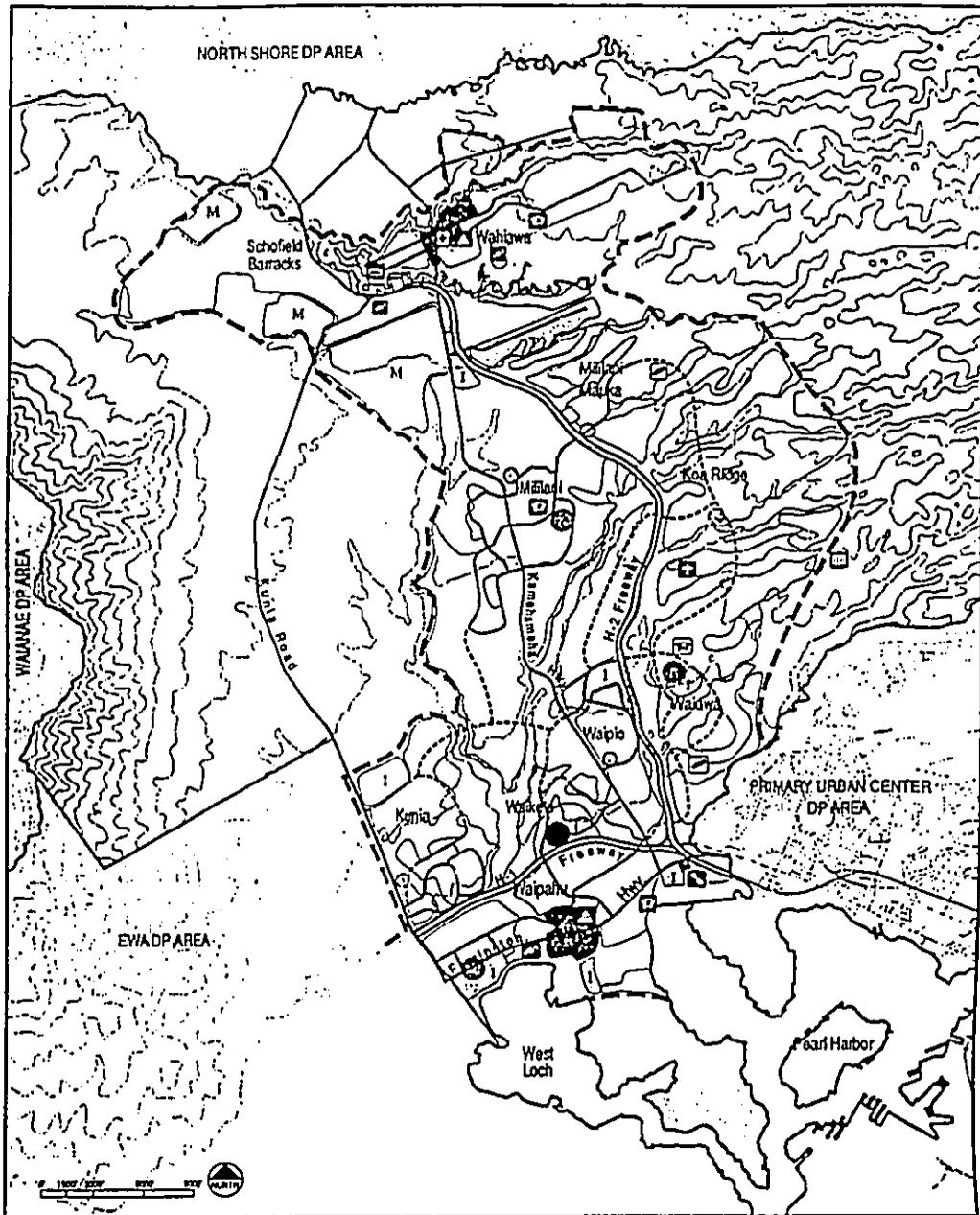
The Central Oahu DP public review draft sets forth general policies, planning principles, and guidelines to be applied to development primarily within the Central Oahu Urban Growth Boundary. Section 15 of the public review draft establishes principles for the development and location of new community facilities, as well as identifying existing facilities. The WCF is identified as an existing correctional facility located outside of the Central Oahu DP Urban Growth Boundary (See Figure 16). According to Planning Department staff, the WCF was not a significant issue during the Central Oahu DP Revision Process (Personal Communication, September 19, 1997).

3.4 City and County of Honolulu Land Use Ordinance and Zoning

The City and County of Honolulu Land Use Ordinance (LUO) regulates land use in accordance with adopted land use policies, including the Oahu General Plan and Development Plans. The provisions are also referred to as the zoning ordinance. Zoning designations are shown on the zoning maps for the City.

The project site is zoned F-1 Military and Federal Preservation District. The purpose of creating the F-1 district is to identify areas in military or federal government use and permit the full range of military and federal activities. Within the F-1 district, all military and federal uses and structures are permitted.

The LUO states that should lands be removed from either the state-designated conservation district or from federal jurisdiction, all uses, structures and development standards shall be as specified for the P-2 general preservation district. Public uses and structures are permitted



CENTRAL OAHU DEVELOPMENT PLAN

Urban Land Use Map

Planning Department
City & County of Honolulu
June 1995

<ul style="list-style-type: none"> Community Commercial Center Major Community Commercial Center Regional Commercial Center Low and Medium Density Residential Town Center Technology Park Industrial Military Park/ Golf Course, Military Training Area, Agriculture & Preservation 	<ul style="list-style-type: none"> Urban Growth Boundary Highways, Arterial & Major Collector Streets Transit Node Intermediate School High School Community College 	<ul style="list-style-type: none"> Civic Center Hospital Cemetery Correctional Facility Wastewater Treatment Plant
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**WAIAWA
CORRECTIONAL FACILITY
IMPROVEMENTS**

**PROPOSED DEVELOPMENT PLAN
URBAN LAND USE MAP**

Fig. 16

Prepared for:
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

Prepared by:
**WILSON OKAMOTO &
ASSOCIATES, INC.**

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principal uses and structures in the P-2 general preservation district. The LUO defines public uses and structures as:

Uses conducted by or structures owned or managed by the federal government, the State of Hawaii or the city to fulfill a governmental function, activity or service for public benefit and in accordance with public policy. Excluded are uses which are not purely a function, activity or service of government and structures leased by government to private entrepreneurs or to nonprofit organizations. Typical public uses and structures include: libraries, base yards, satellite city halls, public schools and post offices.

The City and County of Honolulu LUO requires plan review use (PRU) approval for prison uses. Due to the time requirements associated with processing the PRU and the immediate need for the improvements, however, the State of Hawaii will be exercising its authority over County ordinances to proceed without this approval.

3.5 City and County of Honolulu Special Management Area

The Coastal Zone Management Act contains the general objectives and policies upon which all counties within the State have structured specific legislation which created Special Management Areas (SMA). Any development within the SMA requires a SMA permit, which is administered by the City and County of Honolulu, Department of Land Utilization (DLU) pursuant to Ordinance No. 84-4.

The project site is located outside of the boundaries of the City and County's SMA. Therefore, development of the proposed project is not subject to the provisions of the SMA Use Permit.

4. ALTERNATIVES TO THE PROPOSED ACTION

4.1 No Action Alternative

The No-Action alternative would preclude expansion of the WCF. Currently, the water and wastewater systems at WCF are inadequate with regard to current drinking water, fire protection and wastewater treatment standards. Therefore, it is doubtful that operation of the facility could continue in the long-term. Without the WCF, prison overcrowding would require the construction of facilities elsewhere or result in the early release of inmates from the system. If the KASHBOX program could not be expanded, fewer inmates would benefit from the adjustment in lifestyle fostered by the program. If these needs cannot be met elsewhere, there could be a negative social impact on communities with regard to the potential increase in the incidence of crime.

4.2 Alternative Location

Alternative sites for the 200-bed KASHBOX Compound, including at other correctional facilities, are possible but over-crowding of virtually all correctional facilities throughout the State requires careful consideration of priorities for the allocation of available space. The WCF is ideally suited as a minimum-security facility with adequate space and proximity to the major correctional facilities, which are located on Oahu.

4.3 Alternative Design

Various alternatives were considered for the proposed infrastructure requirements, including extended transmission lines for connecting the WCF to municipal water and wastewater systems. The costs of such pipeline connections are prohibitive and construction of the lines would have potentially greater environmental impacts along the pipeline routes. The opportunity to continue using on-site water and to reclaim wastewater is cost-effective. The proposed wastewater system also advances State DOH policy to encourage reclamation and reuse of wastewater.

Alternative locations for the 200-bed KASHBOX Compound were considered within the WCF, particularly for a site outside of the hydrologic zone of contribution. The KASHBOX Compound was allowed to be located within the zone of contribution by the DOH because of its strategic location in relation to the Administration Building and other functions that will facilitate maintenance of security and provision of support services.

5. PERMITS AND APPROVALS

The following is a list of permits and approvals that may be required for the construction of the interim infrastructure improvements and the 200-bed KASHBOX Compound. Information on permits and approvals required for facilities constructed since 1985 are unavailable.

State of Hawaii

Department of Health

- Approval of wastewater treatment system - approved
- Approval of reclaimed water irrigation plan - pending approval

Department of Land and Natural Resources Historic Preservation Division

- Chapter 6E, HRS Historic Preservation - approved

City and County of Honolulu

Building Department

- Approval of building plans - pending approval

6. DETERMINATION

This Final EA was prepared for review in accordance with the consultation process of Chapter 343, Hawaii Revised Statutes. Based on the significance criteria set forth in Section 11-200-12 of Title 11 Chapter 200, Administrative Rules, Department of Health, State of Hawaii, the State Department of Accounting and General Services has determined that the proposed project will not have a significant effect on the environment, and that a Finding of No Significant Impact (FONSI) will be filed with the State Office of Environmental Quality Control (OEQC).

A. Findings and Reasons Supporting Anticipated FONSI Determination

The effect of the proposed action on the environment is anticipated to be insignificant. In general, construction and use of the proposed correction facility improvements will not:

1. *Involve the loss or destruction of any natural or cultural resource.*

The proposed action will not involve any construction activity which might lead to a loss or destruction of any natural or cultural resource.

2. *Curtail the range of beneficial use of the environment.*

The proposed project will not curtail the beneficial uses of the environment. The project site is currently occupied by the correctional facility.

3. *Conflict with the State's long-term goals or guidelines as expressed in Chapter 344, HRS.*

The proposed project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii. Temporary impacts associated with construction activity of the proposed project can be adequately mitigated.

4. *Substantially affect the economic or social welfare of the community or state.*

The proposed project would provide short-term economic benefits in the form of construction jobs. In the long-term, the expansion of WCF will create employment through increased staffing and support services as well as result in expenditures for food and other goods to maintain the facility.

The expansion of the WCF has a potential implication on the provision of police protection with respect to inmate escapes. The inmates, however, pose a low risk to the public due to their custody status of entering the final step of their term. During the period from October 1996 to September 1997, there were seven escapees from the facility, all of whom have since been apprehended or have turned themselves in. None of the escapes resulted in harm to any member of the public.

Expansion of WCF will increase the capacity of the prison system to keep offenders off the street by reducing the need for early release due to prison overcrowding. It also offers the opportunity to provide inmates with programs and services to help them adjust their lifestyle prior to being released.

5. *Substantially affect public health.*

The proposed project will not affect public health.

6. *Involve substantial secondary effects, such as population changes or infrastructure demands.*

No substantial secondary effects are anticipated with the construction or operation of the proposed facility.

7. *Involve a substantial degradation of environmental quality.*

Construction and operation of the improvements at WCF are not anticipated to significantly impact the surrounding environment of the site.

8. *Cumulatively have considerable effect upon the environment.*

The proposed project is not anticipated to have a considerable cumulative effect upon the environment.

9. *Substantially affect a rare, threatened or endangered species or its habitat.*

There are no known rare, threatened or endangered flora or fauna on the property that could be adversely affected by the construction and operation of WCF.

10. *Detrimentially affect air or water quality or ambient noise levels.*

No significant impacts to groundwater in the vicinity of the WCF are anticipated to occur as a result of construction and operation of the various improvements

Two potential types of air pollution emissions will likely occur including fugitive dust from vehicular movement and soil excavation, and carbon monoxide and nitrogen oxide emissions from on-site construction equipment and from construction workers' vehicle. State regulations require adequate measures to control fugitive dust-generating equipment during construction.

Noise associated with construction activities will likely be unavoidable during the entire construction period. Such impacts will be mitigated by the contractor's compliance with Department of Health Administrative Rules regarding noise control.

No significant air or noise impacts from the operation of the proposed improvements are anticipated.

11. *Affect or is likely to suffer damage by being located in an environmentally sensitive area, such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, freshwater area, or coastal waters.*

The Department of Health has reviewed and approved the reclaimed water agricultural irrigation plan which will also occur over the hydrologic zone of contribution. The project is otherwise not located in an environmentally sensitive area.

12. *Substantially affect scenic vistas and viewplanes identified in county or state plans or studies.*

The proposed WCF improvements will not affect any scenic vistas and viewplanes identified in county or state plans or studies.

13. *Require substantial energy consumption.*

The electrical design for the 200-bed KASHBOX facility meets the Hawaii Model Energy Code. The main housing structure will be naturally ventilated with ceiling fans. Only the classroom structures, which are modified storage containers, will be air-conditioned.

7. REFERENCES

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City and County of Honolulu. *Central Oahu Development Plan: Public Review Draft.* July 1995

City and County of Honolulu. *Central Oahu/North Shore Regional Plan.* July 1993.

City and County of Honolulu. *Ewa and Central Oahu Development Plans Revision Program: Phase I Report.* April 1994.

City and County of Honolulu. *General Plan.* 1992.

M&E Pacific, Inc. *Preliminary Engineering Report: Waiawa Correctional Facility Interim Infrastructure Improvements.* October 1996.

State of Hawaii, Department of Accounting and General Services, Division of Public Works. *Negative Declaration: Waiawa Correctional Facility.* September 1985.

State of Hawaii, Department of Health, Safe Drinking Water Branch. *Report to the Office of State Planning on the Delineation of the Hydrologic Zone of Contribution for the U.S. Navy Waiawa Shaft.* September 1990.

University of Hawaii at Manoa Water Resources Research Center and Department of Meteorology. *Rainfall Atlas of Hawaii, Report R76.* Prepared for the State of Hawaii Department of Land and Natural Resources, Division of Water and Land Development. June 1986.

University of Hawaii, Department of Geography. *Atlas of Hawaii*. The University Press of Hawaii. Honolulu. 1973.

United States Department of Agriculture Soil Conservation Service. *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai, State of Hawaii*. U.S. Government Printing Office.

8. CONSULTATION

8.1 Pre-Assessment Consultation

The following agencies were consulted during the pre-assessment phase of the Environmental Assessment. All written comments and responses are reproduced herein.

State of Hawaii

Department of Public Safety

City and County of Honolulu

Planning Department

Others

Waipahu Neighborhood Board No. 22

Mililani/Waipio/Melemanu Neighborhood Board No. 25

Wahiawa Neighborhood Board No. 26

At the September 16, 1996 Wahiawa Neighborhood Board No. 26 regular meeting, Ted Sakai, Department of Public Safety (PSD) Chief of Staff and Phil Tumminello, WCF Warden provided an update on the WCF expansion project. Mr. Sakai and Mr. Tumminello informed the board members the Governor had released \$1 million in funding for infrastructure improvements (sewers, water, power) for the expansion. The PSD and the Department of Accounting and General Services (DAGS) are working together to expedite the expansion process. Until permanent facilities are constructed, temporary "tent" structures will be erected to house the additional inmates. Appropriations for the expansion of the KASHBOX drug treatment program have been released providing funding for an additional 50 inmates to enroll in the program. Reproduced herein is the Wahiawa Neighborhood Board No. 26, September 16, 1996 regular meeting minutes.

8.2 Comments on the Draft EA

Notice of availability of the Draft EA was published in the October 23, 1997 issue of the Office of Environmental Quality Control's Environmental Notice. The agencies and parties listed below were sent copies of the Draft EA with a request for their comments on the project.

Copies of the document were also made available to the public at the Pearl City Public Library and Mililani Public Library. Of the agencies who formally replied during the EA review period, one had no comment while others provided substantive comments as indicated by the ✓ and ✓✓ respectively. All written comments and responses are reproduced herein.

Federal

- ✓ U.S. Department of Agriculture
- ✓✓ U.S. Navy

State of Hawaii

- ✓✓ Department of Land and Natural Resources
 - Historic Preservation Division
 - Commission on Water Resource Management
- ✓✓ Land Division
- ✓✓ Office of Environmental Quality Control
- ✓✓ Department of Health
 - Environmental Management Division

City and County of Honolulu

- ✓✓ Police Department
- ✓✓ Fire Department
- ✓✓ Department of Wastewater Management
- ✓✓ Department of Public Works
- ✓✓ Department of Land Utilization
- ✓✓ Board of Water Supply
- ✓✓ Planning Department

Other

- ✓✓ Gentry Homes, Ltd.
 - Waipahu Neighborhood Board No. 22
 - Mililani/Waipio/Melemanu Neighborhood Board No. 25
 - Wahiawa Neighborhood Board No. 26
 - Pearl City Neighborhood Board No. 21
 - Councilmember Mufi Hannemann
 - Councilmember Rene Mansho

Pre-Assessment Consultation



WAIPAHU NEIGHBORHOOD BOARD NO. 22

94-450 Lianu Place - Waipahu, Hawaii 96797

October 31, 1996

The Honorable Ben Cayetano
Governor, State of Hawaii
State Capital
Honolulu, Hawaii 96813

Dear Governor Cayetano,

At the October 17th, Waipahu Neighborhood Board Meeting, there was a presentation of the current expansion program proposed for the Waiawa Community Correctional Center. Expansion of the successful Kashbox Program, which has reduced the incidences of recidivism among community drug offenders was especially noteworthy.

This letter serves to recognize the leadership at the Waiawa Community Correctional Center. The initiative of Mr. Ted Sakai and Mr. Phil Tumminello in keeping the community informed of the centers needs and achievements is outstanding. An invitation was extended to Waipahu Neighborhood Board members to attend the Waiawa Expansion dedication program on October 30th and five members attended.

The Waipahu Neighborhood Board is very supportive of the Correctional Programs that offer inmates training and education which may enhance opportunities for successful completion of their obligation to the courts and then have the ability to mainstream into society for a better future.

Sincerely,

Annette Yamaguchi, Chair
Waipahu Neighborhood Board #22

cc: Senators Kanno/Kawamoto and Representatives Takumi/Garcia

- Comment/Recommendation (required)
- Appropriate attention
- Direct reply (cc/bcc: Governor)
- Your information/file
- Direct reply for Governor's signature
- Copy to/report
- Copy of response (if any)
- Enclosure(s)
- Return enclosure(s)
- Other

NOV 6 1996
In working days from
if is encountered in meeting suspense
date advise by telephone immediately
only, please refer to: 96-651631





MILILANI/WAIPIO/MELEMANU NEIGHBORHOOD BOARD NO. 25

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

Marilyn Lee, Chair
Mililani Neighborhood Board #25
95-170 Newe Place
Mililani, Hawaii 96789
March 28, 1996

Warden William Tuminello
Waiawa Correctional Facility
P.O. Box 1839
Pearl City, Hawaii 96782

Dear Warden Tuminello,

Thank you very much for speaking at our Neighborhood Board meeting in February. We were impressed by the plans for Waiawa. We also enjoyed Mr. Sakai's talk.

At the March meeting of the Mililani Waipio Melelmanu Neighborhood Board No. 25, the attached motion was passed by the Board by a unanimous vote. We hope you will keep us up to date on the plans for expansion as they develop.

Sincerely,

Marilyn B. Lee

Marilyn B. Lee, Chair

cc: Mayor Jeremy Harris
Council Member Mansho
Senator Randall Iwase
Representative Ron Menor
Representative Sam Lee
Police Chief Mike Nakamura

*c: Tel
Clayton*



Oahu's Neighborhood Board System - Established 1973



MILILANI/WAIPIO/MELEMANU NEIGHBORHOOD BOARD NO. 25

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

N.B. #25 Motion Regarding Proposed Expansion of Waiawa Prison

Neighborhood Board No. 25 fully supports the proposed expansion of Waiawa prison, provided that Waiawa remains a minimum-security facility and that its specific expansion plans are presented to the community for review and comment prior to implementation. The Board also continues to appreciate the various community service projects undertaken by the Waiawa inmates and the openness and spirit of cooperation shown by the Waiawa warden and other prison administrators in working with nearby neighborhood boards and community associations.



Oahu's Neighborhood Board System - Established 1973

Comments on the Draft EA

United States
Department of
Agriculture
Natural
Resources
Conservation
Service
P.O. Box 50004
Honolulu, HI
96850



Our People...Our Islands...In Harmony

November 25, 1997

Mr. Earl Matsukawa
Project Manager
Wilson Okamoto & Associates, Inc.
1907 South Beretania Street, Suite 400
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

Subject: Draft Environmental Assessment (DEA) - Pre-Assessment Consultation,
Haleiwa Well II, Proposed Exploratory Well Site, Waialua, Oahu, Hawaii

We have reviewed this document and have no comments to offer at this time.

Thank you for the opportunity to review this document.

Sincerely,

KENNETH M. KANESHIRO
State Conservationist

6140-01
December 17, 1997

Mr. Kenneth M. Kaneshiro
State Conservationist
USDA
P. O. Box 50004
Honolulu, Hawaii 96850

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Mr. Kaneshiro:

Thank you for your letter dated November 25, 1997 expressing that you have
no comments to offer at this time on the subject Draft EA.

Your letter, along with this response will be reproduced in the forthcoming
Final Environmental Assessment. We appreciate your interest and participation
in the consultation phase of the environmental review process.

Sincerely,

Earl Matsukawa, AICP, Project Manager
EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Oto, PSD

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS
1907 S. BERETANIA STREET
HONOLULU, HAWAII 96826
PH. (808) 946-2222
FAX. (808) 946-2233



DEPARTMENT OF THE NAVY
 COMNAVDELH
 NAVAL BASE PEARL HARBOR
 BOX 110
 PEARL HARBOR, HAWAII 96350

COPIES RECEIVED
 Ser #401231/4545
 December 2, 1987

Mr Eric Hishimoto
 State of Hawaii
 Department of Accounting and General Services
 Project Management Division
 P. O. Box 119
 Honolulu, HI 96810-0119

Dear Mr Hishimoto:

Subj: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR MAIAWA CORRECTIONAL FACILITY
 HONOLULU, MAIAWA, OAHU

Thank you for providing us with the opportunity to review and comment on the subject Draft EA. Please direct all future correspondences on this subject to Commander, AltN: (H40), Box 110, Naval Base, Pearl Harbor, HI 96860-5020. The Navy's review comments are provided below for your use in preparing the Final EA.

Based on a study by the U. S. Geological Survey in 1981 and 1982 and a study by the Water Resources Center, University of Hawaii in 1983, there exists a potential for ground water contamination of the Navy Shaft under certain conditions. In the past, pesticides used for agriculture have been found in the Navy's Maiawa Water Shaft. Accordingly, the Navy objects to the following: (1) the use of reclaimed wastewater within the hydrologic zone of contribution to the Navy's Maiawa Water Shaft; and (2) the development of agricultural operations within the hydrologic zone of contribution to the Maiawa Shaft.

The Maiawa Shaft is a critical facility which is required for the operation of the Pearl Harbor Naval Complex and Hickam Air Force Base. The proposed uses cited in the EA are not compatible with the continued use of the Maiawa Shaft as a potable water source.

An alternative is to convey the wastewater generated from the Maiawa Correctional Facility to the nearest sewer system and to site agricultural operations outside the hydrologic zone of contribution to the Navy's Maiawa Shaft. Potential impacts to the Navy's Maiawa Shaft should also be closely monitored.

Should you have any questions please contact Ms. Karen Sumida, Head, Water and Wastewater Section, Pacific Division, Naval Facilities Engineering Command (PACNAVFACENGCOM) at 474-7047 or Mr. Helvin Kaku, Director, Environmental Planning Division, PACNAVFACENGCOM at 471-9338.

Sincerely,

Shafiq Bujuan
 Facilities Engineer
 By Direction of
 Commander, Naval Base, Pearl Harbor

Copy to:
 Mr. Earl Hatsuoka, AICP
 Project Manager
 Wilson Okamoto and Associates, Inc.
 Engineers, and Planners
 P.O. Box 3530
 Honolulu, HI 96811

COPIES FOR
 Ser #401231/4545
 December 2, 1987

Copy to (See next page)

WILSON
OKAMOTO
& ASSOCIATES, INC.

6140-01
December 17, 1997

Commander
Naval Base Pearl Harbor, Attn: (N40)
Box 110
Pearl Harbor, Hawaii 96860-5020

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Sir:

Thank you for your letter of December 2, 1997 (5090P.1)ob, Ser
N40(23)/4545) expressing your objection to the following:

1. The use of reclaimed wastewater within the hydrologic zone of contribution to the Navy's Waiawa Water Shaft; and,
2. The development of agricultural operations within the hydrologic zone of contribution to the Waiawa Shaft.

In response to your objections, the Public Safety Department (PSD) and the Department of Accounting and General Services (DAGS) have decided to move both activities described above to areas outside of the hydrologic zone of contribution. This change will be documented in the Final EA and the maps in the Final EA (Figures 7 and 13) depicting agricultural activities will be revised to show this change. Neither the 16 acres proposed to be irrigated with reclaimed water nor the area proposed to be irrigated with untreated surface water drawn from the Waiahole Ditch will overlie the hydrologic zone of contribution. No agricultural activities will occur within the zone.

The alternative of conveying wastewater to a municipal collection system is economically unfeasible at this time but is planned in the future as the Gentry Waiawa development proceeds.

6140-01
Letter to Commander
Naval Base Pearl Harbor
Page 2
December 17, 1997

To assure that potable groundwater sources such as the Navy's Waiawa Water Shaft are not adversely affected, the State Department of Health is requiring that use of reclaimed water comply with its Guidelines for the Treatment and Use of Reclaimed Water (November 22, 1993) which allows the use of secondary treated, disinfected domestic wastewater (R-2 quality water) over potable water aquifers. Reuse under such conditions is scrutinized very closely and a number of conditions are placed on the reclamation project which provides protection to both public health and safety as well as the groundwater.

With regard to the protecting groundwater, the use of R-2 water over a potable aquifer is restricted to application rates with a zero percolation component. This requires that an adequate irrigation area be set aside such that the irrigation rates do not exceed plant/crop consumptive rates. Use of lysimeters within the irrigation areas as well as weather data are used to assure that the project's consumptive rate is not exceeded. Data gathered from monitoring of the site are used to confirm or adjust the irrigation management practices. A monitoring system, including the lysimeters and existing wells, will detect any potential for the contamination of groundwater.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,

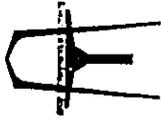


Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
3075 BERGANA STREET
DOWNEY HAWAII 96525
PH (808) 945-2277
FX (808) 945-2253

BENJAMIN CASTLENO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

November 5, 1997
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

Earl Matsukawa, Project Manager
Wilson Okamoto & Associates
1907 S. Beretania Street
Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Draft Environmental Assessment (DEA) for the Waiawa Correctional Facility Improvements
Waiawa, Ewa, O'ahu
TMK: 9-6-05:11

LOG NO: 20437
DOC NO: 9710EJ37

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

CLERK COLONIA AGUIAR

ADULTER DEVELOPMENT PROGRAM

AQUATIC RESOURCES

CONSERVATION AND

RESOURCES DEVELOPMENT

CONVEYANCES

GALLERY AND WILDLIFE

HISTORIC PRESERVATION

DIVISION

LAND USE

STATE PARKS

WATER AND LAND DEVELOPMENT

**WILSON
OKAMOTO
& ASSOCIATES, INC.**



**ENGINEERS
PLANNERS**

ONE S. BERETANIA STREET
HONOLULU HAWAII 96813
PH: (808) 946-2222
FAX: (808) 946-2223

614D-01
December 17, 1997

Mr. Don Hibbard, Administrator
Historic Preservation Division
State of Hawaii
Division of Land and Natural Resources
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Waiawa Correctional Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Mr. Hibbard:

Thank you for your letter dated November 15, 1997 (Log No. 20437, Doc. No. 9710EJ37) expressing your belief "that the impacts from the previous improvements and the current 200-bed KASHBOX project have 'no effect' on significant historic resources."

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,

Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

Thank you for the opportunity to comment on the proposed improvements consisting of a 200-bed KASHBOX housing compound. The DEA also provides an after-the-fact assessment of various construction activities that were conducted by the State since 1985, but were not previously assessed.

A review of our records shows that there are no known historic sites at the project location. An *Archaeological Assessment of a Portion of the Waiawa Correctional Facility* by Cultural Surveys Hawaii submitted with the DEA is not an archaeological survey, nor does it meet our minimal standards for survey. However, from the assessment and the photos included in the report, we are able to render a review conclusion.

It clearly appears that no archaeological sites are likely to be present in the project area because of past development and past land use for pineapple and sugarcane cultivation. Thus, we believe that the impacts from the previous improvements and the current 200-bed KASHBOX project have "no effect" on significant historic sites.

Aloha,

Don Hibbard, Administrator
Historic Preservation Division

EJ:jk

BENJAMIN J. CAYETANO
COMPTROLLER



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
278 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4112
FACSIMILE (808) 586-4118

November 12, 1997

Sam Callejo
Department of Accounting and General Services
Division of Public Works, Project Management Branch
P.O. Box 119
Honolulu, Hawaii 96810

Attention: Eric Nishimoto

Dear Mr. Callejo:

Subject: Draft Environmental Assessment (EA) for Waiawa Correctional Facility

We have the following comments to offer:

1. Permits and approvals: In the final EA list all required permits and approvals for this project and their status.
2. Timeframe: What are the anticipated start and end dates of this project?
3. Project cost: Funding for infrastructure is given at \$1.0 million. What is the total project cost? All state or county funds involved must be disclosed.
4. Resource conservation measures: Please describe any element or material being used in this project to promote environmentally sensitive and energy efficient design, such as low-flush toilets, solar panels or energy-efficient fixtures.

If you have any questions please call Nancy Heinrich at 586-4185.

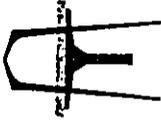
Sincerely,


GARY GILL
Director

c: Earl Matsukawa, Wilson Okamoto

6140-01
December 17, 1997

WILSON
OKAMOTO
A ASSOCIATES, INC.



ENGINEERS
PLANNERS

1805 BERETANIA STREET
HONOLULU HAWAII 96825
PH: (808) 946-2277
FAX: (808) 946-2253

Mr. Gary Gill, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Mr. Gill

Thank you for your letter dated November 12, 1997 commenting on the subject Draft EA. We offer the following responses in the respective order of your comments:

1. The Final EA will list the required permits and approvals for this project and their status.
2. The start and end dates for the facilities constructed since 1985 are not available, however, the Draft EA cites the year when they were completed. The Final EA will note that the on-going construction of the interim infrastructure improvements was initiated on May 12, 1997 and is estimated to be completed in March, 1998. Construction of the 200-bed KASHBOX facility is anticipated to begin in January, 1998 and should be completed approximately one year thereafter.
3. The project costs for the facilities constructed since 1985 are unavailable. Inasmuch as substantial portions of many of these facilities were constructed by the inmates as well as the National Guard, there is no clear accounting of the labor costs involved. The Final EA will note that the construction cost of the interim infrastructure improvements is now estimated to be \$1.3 million, of which State funds account for approximately \$1.0 million and Federal funds account for \$0.3 million. The 200-bed KASHBOX facility is estimated to cost \$2.4 million, of which State funds account for approximately \$0.5 million, and Federal funds account for \$1.9 million.

WILSON
OKAMOTO
& ASSOCIATES, INC.

6140-01

Letter to Mr. Gary Gill

Page 2

December 17, 1997

4. The Final EA will note that the electrical design for the 200-bed KASHBOX facility meets the Hawaii Model Energy Code. The main housing structure will be naturally ventilated with ceiling fans. Only the classroom structures, which are modified storage containers, will be air-conditioned. The toilets and urinals will be low flush fixtures and the lavatories, sinks and shower heads will have flow restrictors.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,



Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



STATE OF HAWAII
 DEPARTMENT OF LAND AND NATURAL RESOURCES
 LAND DIVISION
 P.O. BOX 611
 HONOLULU, HAWAII 96809

November 21, 1997

LD-NAV

Earl Matsukawa, Project Manager
 Wilson Okamoto & Associates, Inc.
 1907 S. Beretania Street
 Honolulu, Hawaii 96826

Dear Mr. Matsukawa:

SUBJECT: Review : Draft Environmental Assessment
 Applicant: State of Hawaii, Department of Accounting
 and General Services
 Project : Waiawa Correctional Facility Improvements
 Proposal : Construct a 200-bed (KASHBOX) drug
 Rehabilitation facility and other
 Infrastructure improvements
 Location : Waiawa, Island of Oahu, Hawaii
 TMK : 1st/ 9-9-05: 11

Thank you for the opportunity to review and comment on the
 subject Draft Environmental Assessment.

Our Land Division Engineering Branch confirms that the
 proposed project site is located in Zone D. This is an area in
 which flood hazards are undetermined.

Attached herewith is a copy of our State Historic Preservation
 Divisions' comments (dated 11/5/97), related to archaeological
 sites at the project location.

The Department of Land and Natural Resources has no other
 comments to offer on the subject matter at this time. Should you
 have any questions, please feel free to contact Nicholas Vaccaro of
 the Land Division's Support Services Branch at 587-0438.

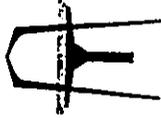
Very truly yours,

Dean Y. Uchida
 DEAN Y. UCHIDA
 Administrator

cc: Oahu Land Board Member
 At-Large Land Board Member
 Oahu District Land Office

CONSULTING ENGINEERS
 ADAPTIC RESOURCES
 PLANNING AND DESIGN
 CORPORATION INC.
 1000 KALANIAN'OLEKI DRIVE
 SUITE 1000
 HONOLULU, HAWAII 96813
 PHONE: 808-941-1111
 FAX: 808-941-1111

WILSON
 OKAMOTO
 & ASSOCIATES, INC.



ENGINEERS
 PLANNERS
 1907 S. BERETANIA STREET
 HONOLULU, HAWAII 96826
 PH (808) 946-2277
 FAX (808) 946-2233

6140-01
 December 17, 1997

Mr. Dean Y. Uchida, Administrator
 State of Hawaii
 Department of Land and Natural Resources
 Land Division
 P. O. Box 621
 Honolulu, Hawaii 96809

Subject: Draft Environmental Assessment for Waiawa Correctional
 Facility Improvements
 Waiawa, Ewa, Oahu, Hawaii
 TMK 9-6-05:11

Dear Mr. Uchida:

Thank you for your letter dated November 21, 1997 (Ref.:WCFLRCM)
 confirming that the proposed project site is located in Zone D, an area in which
 flood hazards are undetermined. Also, we have attached a copy of our
 response that is being sent to the State Historic Preservation Division.

Your letter, along with this response will be reproduced in the forthcoming
 Final Environmental Assessment. We appreciate your interest and participation
 in the consultation phase of the environmental review process.

Sincerely,

Earl Matsukawa

Earl Matsukawa, AICP, Project Manager

EM/ry

attachment

cc: Mr. Eric Nishimoto, P.E., DAGS
 Mr. Mark Ota, PSD



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

November 28, 1997

97-238/epo

LAWRENCE WAKE
DIRECTOR OF HEALTH

PHONE: 548-4444

Mr. Eric Nishimoto
Department of Accounting
and General Services
Project Management Division
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishimoto:

Subject: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
Project: Waiawa Correctional Facility Improvements
Location: Waiawa, Ewa, Oahu, Hawaii
TRK: (1) 9-6-05: 11

Thank you for allowing us to review and comment on the subject project. We have the following comments to offer:

Hazardous Waste Branch

Although not specifically mentioned in the DEA, it is possible that underground storage tanks (USTs) may be installed at the subject facility for storage of motor fuel, emergency generator fuel, etc. The Department of Accounting and General Services (DAGS) should note that USTs are subject to federal and state requirements covering: design, construction, installation, and notification; general operating requirements; release detection; release reporting, investigation, and confirmation; release response and corrective action; changes-in-service and closure; and financial responsibility requirements. Owners of newly installed USTs must notify our UST Section of the existence of such USTs within 30 days of installation. Also, permits must be obtained from the applicable building and fire safety authorities before installation of any USTs.

Should you have any questions regarding this matter, please contact Mr. Eric Sadoyama of the Hazardous Waste Branch, UST Section at 586-4226.

Mr. Eric Nishimoto
November 28, 1997
Page 2

97-238/epo

Safe Drinking Water Branch

The final operations plan for the Waiawa Correctional Facility's surface water treatment facility has not been submitted for Department of Health (DOH) review and approval. Please refer to the DOH's letter dated March 12, 1997 for related details.

If you should have any questions regarding these comments, please contact Ms. Queenie Komori of the Safe Drinking Water Branch, Engineering Section, at 586-4258.

Noise, Radiation, and Indoor Air Quality

Noise Concerns

Compliance with Hawaii Administrative Rules (HAR), Chapter 11-43, "Community Noise Control for Oahu" is referenced in the DEA. Chapter 11-43 has been superseded by HAR, Chapter 11-46, "Community Noise Control."

Asbestos

The Federal Register, 40 CFR Part 61, National Emission Standard for Hazardous Air Pollutants, Asbestos NESHAP Revision; Final Rule, November 20, 1990, requires inspection of all affected areas to determine whether asbestos is present.

Under the NESHAP regulation, the project would be required to file an Asbestos Demolition/Renovation notification ten working days prior to demolition of each building or the disturbance of regulated asbestos-contaminating materials. All regulated quantities and types of asbestos-contaminating materials would be subject to emission control, proper collection, containerizing, and disposal at a permitted landfill.

Questions concerning asbestos requirements should be directed to Mr. Robert H. Lopes at 586-5800. Should there be additional concerns, please contact Mr. Jerry Haruno, Environmental Health Program Manager of the Noise, Radiation and Indoor Air Quality Branch at 586-4701.

Sincerely,

BRUCE S. ANDERSON, Ph.D.
Deputy Director for Environmental Health

c: Wilson Okamoto & Associates, Inc. ✓
SHWB
SDWB
NR&IAQB

WILSON
OKAMOTO
& ASSOCIATES, INC.

6140-01
Letter to Dr. Bruce S. Anderson
Page 2
December 17, 1997

Bruce S. Anderson, Ph.D.
Deputy Director for Environmental Health
State of Hawaii
Department of Health
P. O. Box 3378
Honolulu, Hawaii 96801

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Dr. Anderson:

Thank you for your letter of November 28, 1997 commenting on the subject
Draft EA. We offer the following responses in the respective order of your
comments:

1. Hazardous Waste Branch

The Public Safety Department has not installed or is planning to install
any underground storage tanks (UST) at the Waiawa Correctional
Facility (WCF). The information you provided regarding the
requirements for USTs is appreciated. If any USTs are needed in the
future, all applicable federal and State requirements will be complied
with.

2. Safe Drinking Water Branch

The final operations plan will be submitted for DOH review an approval
shortly.

3. Noise Radiation and Indoor Air Quality

We appreciate your correction of the citation for the noise control
regulations. The Final EA will be revised accordingly.

4. Asbestos

Presently, there are no plans to demolish or renovate structures within
the WCF. The information you provided regarding the requirements for
asbestos inspection, handling and disposal is appreciated. If any future
demolition or renovation of existing structures is require, all applicable
federal and State requirements will be complied with.

Your letter, along with this response will be reproduced in the forthcoming
Final Environmental Assessment. We appreciate your interest and participation
in the consultation phase of the environmental review process.

Sincerely,



Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Ota, PSD

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1925 BEECHVALE STREET
HONOLULU, HAWAII 96822
P - 523-846-2277
FAX - 523-846-2253

10/29/97 11:08 DAGE (PAJ PROJ) H311

001

CITY AND COUNTY OF HONOLULU

POLICE DEPARTMENT
801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 935-3111



JEREMY HARRIS
MAYOR

RECEIVED - DAGE
DIV. OF PUBLIC WORKS
1971 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813

LEE BONDURUS
WILLIAM B. CLARK
DEPUTY CHIEF

OUR REFERENCE BS-DL

October 24, 1997

Mr. Eric Nishimoto
Project Management Division
Department of Accounting and
General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishimoto:

This is in response to Mr. Earl Matsukawa's letter of October 22, 1997, requesting comments on the Draft Environmental Assessment for the Waiawa Correctional Facility Improvements.

This project should have no significant impact on the operations of the Honolulu Police Department.

Thank you for the opportunity to review this document.

Sincerely,

MICHAEL G. NAKAMURA
Chief of Police

By *James Penia*
JAMES PENIA, Assistant Chief
Administrative Bureau

10/29/97
FAX COPY: WILSON OKAMOTO ASSOC., LAHANA HIMA
PUBLIC SAFETY, CALVIN NIEMINEN

FROM: OMS, ERIC NISHIMOTO

61-10-01
December 17, 1997

Mr. Michael Nakamura
Chief of Police
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TNK 9-6-05:11

Dear Mr. Nakamura:

Thank you for your letter dated October 24, 1997 (Reference: BS-DL) indicating that you anticipate no significant impact on the operations of your Department as a result of the project.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,

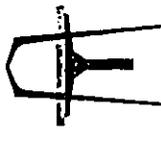
Earl Matsukawa

Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGE
Mr. Mark Oto, PSD

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1907 S. BERETANIA STREET
HONOLULU, HAWAII 96813
PH: (808) 946-2222
FAX: (808) 946-2225

DEPARTMENT OF WASTEWATER MANAGEMENT
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET, 2ND FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 525-1000 • FAX: (808) 525-1001

RECEIVED - DAGS
DIV. OF PUBLIC WORKS



NOV 17 A 3 37
KENNETH E. SPRAGUE, P.L.P.D.
DIRECTOR
CHERYL GONZALES
DEPUTY DIRECTOR

In reply refer to:
WCC 97-258

November 14, 1997

Mr. Eric Nishimoto
State of Hawaii
Department of Accounting and General Services
Project Management Division
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishimoto:

Subject: DRAFT ENVIRONMENTAL ASSESSMENT
WAIAWA CORRECTIONAL FACILITY IMPROVEMENTS
WAIAWA, OAHU
TMK: 2-6-005:011

We have no objections to the proposed improvements at the Waiawa Correctional Facility (WCF). The State of Hawaii proposes to build a 200-bed KASHBOX Drug Rehabilitation Program Compound at the Department of Public Safety's minimum-security WCF. The municipal wastewater system does not serve the subject parcel. Wastewater will be treated by an on-site wastewater treatment system.

The report states that the WCF will connect to the municipal wastewater system through the Waiawa Gentry development. However, the WCF is not included in the approved Wastewater Master Plan for Waiawa by Gentry dated December 1995. Please coordinate with Gentry Development Company to ensure that the sewer system can accommodate the WCF.

If you have any questions, please contact Mr. Scott Gushii of the Service Control Branch at 523-4886.

11/17/97
EX COPY: • WILSON OKAMOTO & ASSOC.
LAUREN WILSON
• DEPT. OF PUBLIC SAFETY
CALVIN NEKONOHU

Sincerely,

KENNETH E. SPRAGUE
Director

FROM: DAGS, ERIC NISHIMOTO

6140-01
December 17, 1997

Kenneth E. Sprague, Ph.D., Director
Department of Wastewater Management
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Waiawa Correctional Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Dr. Sprague:

Thank you for your letter of November 14, 1991 (WCC 97-258) indicating that you have no objections to the proposed improvements at the Waiawa Correctional Facility (WCF).

Pursuant to your recommendation, the Department of Accounting and General Services and the Public Safety Department will be initiating informal discussions with Gentry Homes, Ltd. shortly, regarding the accommodation of the WCF in their planned sewer facilities.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,

Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
420 SOUTH KING STREET, 11TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-5341 • FAX: (808) 527-5837



JONATHAN K. SHIMADA, PH.D.
DIRECTOR OF PUBLIC WORKS
ROLAND LIBERT, JR.
DEPUTY DIRECTOR
ENV 97-249

November 17, 1997

Project Management Division
Department of Accounting and
General Services
State of Hawaii
1151 Punchbowl Street
Honolulu, Hawaii 96813

Attention: Eric Nishimoto

Gentlemen:

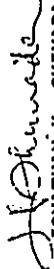
Subject: Draft Environmental Assessment (DEA)
Waiawa Correctional Facility Improvements
TMK: 9-6-05: 11

We have reviewed the subject DEA and have the following comments:

1. Under Section 2.5, Flood Hazard and Drainage, please describe the pattern of runoff from the facility and what best management practices (BMPs) will be used to minimize discharge of pollutants to State waters.
2. Describe provisions to insure untreated effluent from the wastewater treatment plant will not reach nearby streams.

Should you have any questions, please contact Alex Ho at 523-4150.

Very truly yours,


JONATHAN K. SHIMADA, PhD
Director and Chief Engineer

cc: Wilson Okamoto & Associates, Inc.
(Earl Matsukawa)

6140-01
December 17, 1997

Jonathan K. Shimada, Ph.D.
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

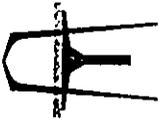
Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Dr. Shimada:

Thank you for your letter of November 17, 1997 (ENV 97-2-9) commenting on the subject Draft EA. We offer the following responses in the respective order of your comments:

1. In the Final EA, a more detailed description of the natural drainage patterns at the Waiawa Correctional Facility (WCF) will be provided in Section 2.5. The following Best Management Practices will also be described in the Impacts and Mitigation Measures section:
 - A temporary silt fence will be installed to prevent sediment-laden runoff from leaving the project site.
 - All slopes and exposed areas will be sodded or planted as soon as final grades have been established.
 - Water discharged in conjunction with chlorinated hydrotesting will be directed into a temporary retention basin(s) to be constructed by the contractor outside of the construction area but within the project site. If it is determined that such discharges could enter State waterways, the contractor will be responsible for obtaining a National Pollutant Discharge Elimination System (NPDES) permit to allow such discharges prior to testing. Upon completion of testing, the retention basin will be filled and the site restored to the original condition.

WILSON
OKAMOTO
& ASSOCIATES, INC.



ENGINEERS
PLANNERS
1925 BERETANA STREET
POCULAU HAWAII 96815
PH: (808) 946-7277
FAX: (808) 946-7253

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
620 SOUTH KING STREET, THIRD FLOOR • HONOLULU, HAWAII 96813
PHONE (808) 523-4414 • FAX (808) 527-8743



JEREMY WARREN
MAIL ROOM

JAN MAO SULLIVAN
DIRECTOR
LORETTA C. CHEE
SENIOR DEPUTY DIRECTOR

97-07873 (ST)
'97 EA Comments Zone 9

November 24, 1997

Mr. Eric Nishimoto
Department of Accounting and General Services
Project Management Division
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishimoto:

Draft Environmental Assessment (DEA) For
Waiawa Correctional Facility Improvements
Waiawa, Ewa, Oahu
Tax Map Key: 9-6-05i por. 11

We have reviewed the DEA for the above-referenced facility transmitted by Earl Matsukawa's letter dated October 22, 1997. Relative to Section 3.4 of the DEA, "City and County of Honolulu Land Use Ordinance and Zoning":

- We confirm that pursuant to Section 5.10(d) of the Land Use Ordinance (LZO), this facility, which has been removed from Federal Jurisdiction, shall comply with all uses, structures and development standards as specified for the P-2 General Preservation District.
- We also confirm that prisons are a permitted use within this District, subject to the approval of a Plan Review Use (PRU), as stated on page 3-6.
- We recognize the Public Safety Department's (PSD) need to proceed in a timely manner, inasmuch as the proposed improvements and those already constructed since the last EA (1985) may be necessary in the interest of public safety. However, insofar as the continual growth and development of this facility has the potential to result in major regional land use impacts affecting anticipated (Gentry Waiawa) and existing residential, as well as mixed-use developments, we strongly recommend that a PRU be obtained.

Mr. Eric Nishimoto
Page 2
November 24, 1997

We appreciate that opportunity to comment on this matter. Should you have any questions, please contact Steve Tagawa of our staff at 523-4817.

Very truly yours,

JAN MAO SULLIVAN
Director of Land Utilization

JNS:am

cc: Earl Matsukawa, Wilson Okamoto & Assoc., Inc.
State Office of Environmental Quality Control

9:ppd106wsl1997.nht

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813
PHONE (808) 527-6160
FAX (808) 533-2712



November 24, 1997

COPY

JEREMY HARRIS, Mayor
WALTER C. WATSON, Jr., Chairman
MAURICE W. YAMASATO, Vice Chairman
KAZUO S. ASHIDA
MELISSA LUM
FORREST L. MURPHY
JOYANTHAK SHARADA, P.E.
DARBUK RAMSTADT, P.E.
RAYMOND H. SATO
Manager and Chief Engineer

State of Hawaii
Department of Accounting
and General Services
Project Management Division
P. O. Box 119
Honolulu, Hawaii 96810

Attention: Eric Nishimoto

Gentlemen:

Subject: Your Transmittal of October 22, 1997 of the Draft Environmental Assessment for the Waiaua Correctional Facility Improvements, Waiaua, Oahu, TMK: 2-6-05-11

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (EA) for the completed and proposed improvements at the Waiaua correctional facility.

We provide the following response to the draft EA:

1. According to the draft EA, the original 30,000 gallon per day (gpd) system included a lined evaporation pond which was subsequently converted to a unlined seepage pond. The conversion to an unlined seepage pond is in conflict with our No-Pass Zone regulations prohibiting any ground disposal of wastewater. In addition, a second unlined seepage pond was recently constructed. We understand the lining of both ponds will be a part of the proposed improvements.
2. The proposed improvements include the use of over 56,000 gpd of R-2 treated wastewater for irrigation of 16 acres of agricultural land. We have significant concerns on the use of reclaimed wastewater within the No-Pass Zone due to the potential for groundwater contamination of downgradient potable wells. In addition to the Navy's Waiaua Staff, our Waipio Heights Wells III, (State Well No. 2655-02 and 03) and Waipio Heights Wells II, (State Well No. 2500-01 and 02) and future Waiaua Wells lie down gradient from the facility.

Our Waipio Heights wells, which serve the Waipio area, have the presence of agricultural pesticides in the water. In April 1997, the Waipio Heights Wells II source was shut down due to rising TCP levels. Pesticide treatment facilities are currently being designed and are very costly.

Our experience with elevated nitrate levels in our Kunia Wells I & II, clearly shows a relationship between surface activities and groundwater quality. Hawaiian volcanic geology has permeable characteristics.

Reclaimed sewage effluent used in the No-Pass Zone and above potable drinking water wells should be treated to tertiary levels and demineralized to remove salts and nitrates.

State of Hawaii
Page 2
November 24, 1997

3. The EA should include a map showing the agricultural areas where reclaimed effluent is proposed. The map should include groundwater flow directions and all potable wells in the vicinity and downgradient of the application. The well head protection area of those wells should also be shown. Our estimates indicate the groundwater flow direction is southwest from the facility which is normal to the trend of the Koolau range.

4. The EA should include a full discussion on the responsible parties that will be liable for the cost of water treatment systems which may be necessary should the groundwater become contaminated.

5. The proposal to use reclaimed effluent above drinking water wells should be presented to the neighborhood boards within the affected areas. The community's concerns should be fully addressed and documented.

6. The EA should discuss an action plan if the treatment plant process, and the water quality monitoring mitigative measures fail.

If you have any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,

RAYMOND H. SATO
Manager and Chief Engineer

cc: Department of Health, Safe Drinking Water Branch
Office of Environmental Quality Control
William Okamoto and Associates, Inc.

WILSON
OKAMOTO
ASSOCIATES, INC.

6140-01
December 17, 1997

WILSON
OKAMOTO
ASSOCIATES, INC.



ENGINEERS
PLANNERS
1925 BERETANIA STREET
HONOLULU, HAWAII 96813
P.O. BOX 216-217
TEL: (808) 946-2171
FAX: (808) 946-2173

Mr. Raymond Sato
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96843

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Mr. Sato:

Thank you for your letter of November 24, 1997 commenting on the subject Draft EA. We offer the following responses in the respective order of your comments:

1. The Final EA will include a correction to the effect that the smaller emergency discharge pond to the east of the treatment plant will be unlined as you have noted in your comment. The larger treatment and storage pond to the west of the treatment plant will be lined. In the event of a plant upset, overflows of raw or treated wastewater from the plant will be discharged into that pond, which has been designed to accommodate such emergency discharges.
The smaller, unlined pond east of the treatment plant will be used only for emergency storage of fully-treated reclaimed water. Inasmuch as the water reclamation system will provide for up to 20-days of storage during wet-weather conditions, the unlined storage pond would rarely, if ever, be used. Lining the pond would be an unjustifiable cost since the lining of an empty pond would be damaged by exposure to sunlight.
2. According to the State Department of Health, Wastewater Branch, the Department's Guidelines for the Treatment and Use of Reclaimed Water (November 22, 1993) the use of secondary treated, disinfected domestic wastewater (R-2 quality water) is allowed over a potable water aquifer.

6140-01
Letter to Mr. Raymond Sato
Page 2
December 17, 1997

Reuse under such conditions is scrutinized very closely and a number of conditions are placed on the reclamation project which provides protection to both public health and safety as well as the groundwater.

With regard to the protecting groundwater, the use of R-2 water over a potable aquifer is restricted to application rates with a zero percolation component. This requires that an adequate irrigation area be set aside such that the irrigation rates do not exceed plant/crop consumptive rates. Use of lysimeters within the irrigation areas as well as weather data are used to assure that the project's consumptive rate is not exceeded.

Unwanted or unsafe chemicals are not expected to be a serious source of concern. Both agricultural pesticides and herbicides in the wastewater are considered negligible or non-existent as the collection system serves a correctional facility. Wastewater from such a source is characterized as domestic without industrial or agricultural sources.

The volume of wastewater generated at the Waiawa Correctional Facility (WCF) is less and its quality is better than it would be at a comparably-sized facility since, as discussed in Section 1.4.1 of the Draft EA, laundry service for WCF is provided at the Halawa Correctional Center. Moreover, relocation of food preparation to the State's Waimano Training School and Hospital is also being considered. This would limit wastewater generation to personal hygiene activities associated with showers, lavatories and toilets. These measures would also improve the quality of the wastewater.

With regard to nitrate and TDS levels, both of these concerns are factors considered in determining irrigation application rates. The Reuse Guidelines address TDS levels in the aquifer and places restrictions on the mass loading rates over the irrigated area. Nitrogen levels are similarly analyzed and controlled by estimating the specific nutrient uptake rates of the plant/crop used in the irrigation area. Both nitrogen uptake rates and the TDS loading rates are factors used to adjust the consumptive application rates.

WILSON
OKAMOTO
ASSOCIATES, INC.

6140-01
Letter to Mr. Raymond Sato
Page 3
December 17, 1997

All of these factors and the data gathered from monitoring of the site are used to confirm or adjust the irrigation management practices. A monitoring system will be in place consisting of lysimeters and existing wells to monitor any contamination to the groundwater. As such, the Department of Health has expressed confidence that the use of R-2 water over a potable aquifer in the WCF project is safe and environmentally sound and a significant improvement over the existing wastewater system. Based on the safeguards described, treatment to tertiary levels and demineralization to remove salts and nitrates would, in consideration of the high cost of such treatment, be unnecessary and unjustifiable.

3. The Draft EA includes a map (Figure 13) showing the agricultural areas where the application of reclaimed effluent is proposed. The map in the Final EA will be revised to show a change in the location of agricultural areas to avoid the "Hydrologic Zone of Contribution" associated with the Navy's Waiawa Shaft. Neither the 16 acres proposed to be irrigated with reclaimed water nor the area proposed to be irrigated with untreated surface water drawn from the Waiahole Ditch will overlie the zone of contribution. No agricultural activities will occur in this zone.

A map showing the potable wells and associated well head protection areas in the vicinity of the project site will be included in the Final EA. The project site is located east of Well Head Protection Area I. According to a report by the U.S. Environmental Protection Agency and the State Department of Health entitled A Demonstration Project to Estimate the Vulnerability of Central Oahu's Groundwater to Anthropogenic Contaminants (October 20, 1995), the flow direction of groundwater on the regional scale "is principally southward and roughly follows the topography." Within the project area of the study, "groundwater generally flows from the northwest to the southeast." This will be noted in the Final EA.

4. No significant impacts on groundwater are anticipated. If the proposed monitoring system should detect any potential for groundwater contamination associated with agricultural use of reclaimed water, the practice will be terminated before any contamination can occur. The Public Safety Department is fully responsible for the operation of the water reclamation system.

WILSON
OKAMOTO
ASSOCIATES, INC.

6140-01
Letter to Mr. Raymond Sato
Page 4
December 17, 1997

5. The proposed water reclamation and reuse system, as documented in the Draft EA has been distributed to the various neighborhood boards in the area for review and comment. A copy of the Final EA will also be distributed to the boards.

6. Should irrigation reuse of reclaimed water be necessary, as described in our response to item no. 4, above, then measures will be taken to immediately reduce the generation of wastewater. This would include reducing the frequency of showering and, if necessary, use of portable toilets. Further, if the treatment pond and emergency discharge pond reach their design capacity, reclaimed water or effluent could be transported by truck for discharge into a municipal wastewater collection system. Inasmuch as the need for such measures is unlikely, they are not regarded as mitigation measures to be included in the EA.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,



Earl Matsukawa, AICP, Project Manager

EM/ry

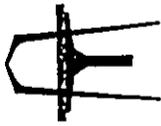
cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

573559

PE

3140-01
October 22, 1997

WILSON
OKAMOTO
ASSOCIATES, INC.



ENGINEERS
PLANNERS
2015 BERETANIA STREET
HONOLULU HAWAII 96810
P (808) 948-2277
F (808) 948-2253
JANUARY 1988
C O R P O R A T I O N
A LIMITED LIABILITY COMPANY

Mr. Raymond Sato, Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street, Room 311
Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment
Waiawa Correctional Facility Improvements
Waiawa, Oahu

Dear Mr. Sato:

On behalf of the State of Hawaii Department of Accounting and General Services we are transmitting the subject Draft EA for your review and comment. Notice of the availability of this document will be published in the October 23, 1997 issue of the Office of Environmental Quality Control's Environmental Notice. Any comments you may have must be postmarked by November 24, 1997 to the following address:

State of Hawaii
Department of Accounting and General Services
Project Management Division
P.O. Box 119
Honolulu, Hawaii 96810
Attention: Mr. Eric Nishimoto

Thank you for your participation in the EA public review process.

Sincerely,

Earl Matsukawa, AICP
Project Manager

cc: Mr. Eric Nishimoto, Department of Accounting and General Services

PE

11/25/97

08:47

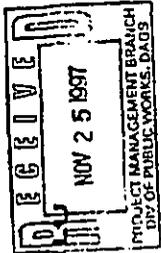
DACS PROJ NIGHT

001

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
 850 SOUTH KING STREET, 8TH FLOOR • HONOLULU, HAWAII 96813-2017
 PHONE: (808) 525-4311 • FAX: (808) 525-4880



JELENE MARIS
 MAYOR



PATRICK T. ONISHI
 CHIEF PLANNING OFFICER
 DORA L. HAMAIKE
 DEPUTY CHIEF PLANNING OFFICER

RR 10/97-2096

November 24, 1997

Department of Accounting and General Services
 Project Management Division
 State of Hawaii
 P.O. Box 119
 Honolulu, Hawaii 96810

Attention: Mr. Eric Nishimoto

Gentlemen:

Draft Environmental Assessment (EA)
 Waiawa Correctional Facility Improvements
 Tax Map Key (TMK) 9-6-05:11

We have reviewed the above EA with regard to the proposed improvements' impacts on the City and County of Honolulu's General Plan and the Central Oahu Development Plan and find the proposed improvements consistent with these Plans' objectives and provisions.

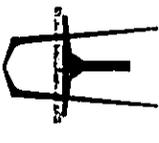
Should you have any questions, please contact Robert Reed of our staff 523-4402.

Yours very truly,

Patrick T. Onishi
 PATRICK T. ONISHI
 Chief Planning Officer

PTO:js
 11/25/97
 FAX COPY: • WILSON OKAMOTO & ASSOC.
 LAHANA HMM
 • DEPT. OF PUBLIC SAFETY
 CALVIN NEKOHUHI

WILSON
 OKAMOTO
 & ASSOCIATES, INC.



ENGINEERS
 PLANNERS
 1015 BEEHIVE STREET
 HONOLULU, HAWAII 96813
 PH: (808) 546-7211
 FAX: (808) 546-7233

6140-01
 December 17, 1997

Mr. Patrick T. Onishi
 Chief Planning Officer
 Planning Department
 City and County of Honolulu
 650 South King Street, 8th Floor
 Honolulu, Hawaii 96813

Subject: Draft Environmental Assessment for Waiawa Correctional
 Facility Improvements
 Waiawa, Ewa, Oahu, Hawaii
 TMK 9-6-05:11

Thank you for your letter dated November 24, 1997 (RR 10/97-2096) expressing your finding that the proposed improvements are consistent with the objectives and provisions of the City and County of Honolulu's General Plan and the Central Oahu Development Plan.

Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,
Earl Matsukawa
 Earl Matsukawa, AICP, Project Manager

EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
 Mr. Mark Oto, PSD

THE GENTRY COMPANIES



November 20, 1997

State of Hawaii
Department of Accounting
& General Services
Project Management Division
P.O. Box 119
Honolulu, Hawaii 96810
Attention: Mr. Eric Nishimoto

Dear Eric:

Subject: Draft Environmental Assessment (EA)
Waiawa Correctional Facility Improvements
Waiawa, Oahu

Thank you for the opportunity to review the draft EA for the proposed improvements to the Waiawa Correctional Facility (WCF). Our comments are as follows:

1. When Waiawa Correctional Facility was first established in 1985, it was proposed as a 94-bed temporary facility to provide extensive education and vocational programs for sentenced misdemeanor male inmates. Due to infrastructure inadequacies and the general condition of existing structures, the Ten-Year Corrections Master Plan prepared in June 1991 recommended phasing out WCF by the end of this decade. Yet, over time, WCF's operating capacity and inmate population have steadily grown. According to the EA, the current population of 282 will increase to 334 when the proposed KASHBOX compound is constructed. The EA should disclose what the ultimate plan is for WCF and address the potential environmental, economic and social impacts. Moreover, the existing, ongoing and proposed improvements assessed in this EA significantly increase the operating capacity of the facility and constitute a substantial commitment of State resources. The cumulative impact of these improvements are not insignificant and should be considered via an Environmental Impact Statement or alternative planning document.

2. Since most of the facilities will be constructed within the Zone of Contribution (ZOC) for the Navy's Waiawa Water Shaft, both the Department of Health and the U.S. Navy should be consulted with regard to the potential impact on the Navy Shaft. The EA should assess and disclose the risk of water quality degradation/contamination associated with the various urban and agricultural activities occurring onsite.

3. In Section 1.2, Project Location, the EA should state that the project is located adjacent to the Gentry Waiawa development which received State Land Use approval in 1988.

4. The statements on Page 2-7, Paragraph 1, pertaining to delineation of the zone of contribution are inaccurate. The ZOC was not used as the basis for delineating the Urban District boundary amendment for the Waiawa development. In fact, the ZOC itself was delineated several years after the redistricting occurred and portions of the Urban District fall within the ZOC. Development activities within this zone are subject to the review and approval of the Department of Health.

5. The EA should assess and disclose the potential impact of the proposed activities on the Gentry Waiawa development with respect to the following:

a. The impact of sewage treatment and disposal facilities and use of reclaimed effluent and untreated surface water for irrigation purposes on the potable water wells which have been drilled at elevation 785', immediately makai of the WCF.

b. The impact of increased surface runoff due to development of the WCF site. What is the drainage plan for the site?

c. The current and projected number of vehicular trips generated to and from the facility.

d. The visual impact on adjoining properties. Is perimeter landscaping being considered?

6. Finally, on pages 2-18 and 2-19, the EA states that in the future, WCF will tie into municipal sewer and water systems when the Gentry Waiawa development is implemented. Current master plans for this development do not reflect sewer and water requirements to serve the facility.

Should you have any questions with regard to these comments, please feel free to call me at 599-8345.

Very truly yours,

GENTRY HOMES, LTD.

Patrice Tottori Liu

Patrice Tottori Liu
Waiawa Project Director

cc: Earl Matsukawa
Wilson Okamoto & Associates

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& ASSOCIATES, INC.**

6140-01

Letter to Ms. Patrice Tottori Liu

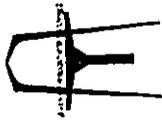
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December 17, 1997

**WILSON
OKAMOTO
& ASSOCIATES, INC.**



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Ms. Patrice Tottori Liu
Waiawa Project Director
The Gentry Companies
560 N. Nimitz Highway
Honolulu, Hawaii 96817

Subject: Draft Environmental Assessment for Waiawa Correctional
Facility Improvements
Waiawa, Ewa, Oahu, Hawaii
TMK 9-6-05:11

Dear Ms. Tottori Liu:

Thank you for your letter of November 20, 1997 commenting on the subject
Draft EA. We offer the following responses in the respective order of your
comments:

1. The Waiawa Correctional Facility (WCF) was never operated by the
Public Safety Department (PSD) as a temporary facility. When the
State entered into the 30-year Quitclaim Deed with the Federal
government, the intent was to operate a permanent facility. While
closure of the facility has been discussed, no such action has ever been
pursued.

The Ten-Year Corrections Master Plan prepared in 1991 recommended
phasing out the facility, alluding to the infrastructure and fire safety
concerns identified at that time. The PSD, however, never accepted the
recommendation. As described in Section 1.4 Project Need, under
Inmate Population Projections, the inmate population has increased at
a rate far exceeding the projections of the Master Plan. Had a phase-
out been implemented, the prison overcrowding problem would be
worse than it currently is. The interim infrastructure improvements
described in the Draft EA address the infrastructure and fire safety
concerns mentioned in the Master Plan.

The EA provides a cumulative assessment of all facilities constructed
since 1985, facilities currently under construction as well as the
proposed 200-bed KASHBOX facility and finds no significant impacts.
As stated in the Draft EA, the PSD has no plans for further expanding
the WCF.

2. The U.S. Navy and the Department of Health (DOH) are among the
parties included in the consultation phase of the EA. The EA disclosed
the purpose of the establishing the Hydrologic Zone of Contribution and
that the approval of DOH was required for the various facilities and
activities to be located within the zone. Based on the concerns of the
U.S. Navy, all agricultural activities, including the application of
reclaimed water for irrigation have been relocated outside of the zone,
as will be discussed in the Final EA.

3. We will include your recommended reference to the Gentry Waiawa
development in Section 1.2 of the Final EA.

4. We appreciate your clarification regarding the relationship of the State
Land Use District Boundary Amendment for the Gentry Waiawa
development to the establishment of the Hydrologic Zone of
Contribution. This clarification will be reflected in the Final EA.

5a. As discussed in the Draft EA, use of reclaimed water will not have a
significant effect on potable groundwater resources. According to the
State Department of Health, Wastewater Branch, the Department's
Guidelines for the Treatment and Use of Reclaimed Water (November
22, 1993) the use of secondary treated, disinfected domestic wastewater
(R-2 quality water) is allowed over a potable water aquifer. Reuse
under such conditions is scrutinized very closely and a number of
conditions are placed on the reclamation project which provides
protection to both public health and safety as well as the groundwater.

With regard to the protecting groundwater, the use of R-2 water over a
potable aquifer is restricted to application rates with a zero percolation
component. This requires that an adequate irrigation area be set aside
such that the irrigation rates do not exceed plant/crop consumptive rates.
Use of lysimeters within the irrigation areas as well as weather data are
used to assure that the project's consumptive rate is not exceeded. All
of these factors and the data gathered from monitoring of the site are
used to confirm or adjust the irrigation management practices. A
monitoring system will be in place consisting of lysimeters and existing
wells to monitor any contamination to the groundwater. As such, the

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Department of Health has expressed confidence that the use of R-2 water over a potable aquifer in the WCF project is safe and environmentally sound and a significant improvement over the existing wastewater system.

The continued use of untreated surface water for agricultural irrigation is not anticipated to have a significant impact on groundwater resources. The Final EA will include a statement to this effect.

The Final EA will include a map depicting the location of existing potable wells in the vicinity of the project site.

- 5b. Drainage from the WCF will continue to follow natural drainage courses. As discussed in Section 2.5 of the Draft EA, while built-up areas have and will reduce the area of open land available for rainfall infiltration, this reduction is insignificant in relation to the large undeveloped watershed within which the WCF is located.
- 5c. As discussed in the Draft EA in Section 2.8, the traffic impacts associated with the WCF are insignificant in relation to the capacity of the freeway, off-ramps and roads used to access the facility. Therefore, a traffic assessment is not warranted. Traffic counts in the absence of such an assessment would lack meaningful context.
- 5d. The visual impact of the WCF improvements is discussed in Section 2.14 of the Draft EA. Due to the abundance of open space and natural vegetation, perimeter landscaping would have negligible benefit.
6. The PSD and DAGS have indicated that they will be contacting Gentry Homes, Ltd. shortly to initiate discussion regarding the sizing of sewer and water lines to accommodate the WCF in the future.

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Your letter, along with this response will be reproduced in the forthcoming Final Environmental Assessment. We appreciate your interest and participation in the consultation phase of the environmental review process.

Sincerely,



Earl Matsukawa, AICP, Project Manager
EM/ry

cc: Mr. Eric Nishimoto, P.E., DAGS
Mr. Mark Olo, PSD

APPENDIX A
Archaeological Assessment

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September 24, 1997

Mr. Earl Matsukawa
Wilson Okamoto & Associates
Artesian Plaza
1907 S. Beretania St., Suite 400
Honolulu, Hawaii 96826

Subject: Archaeological Assessment of a Portion of the Waiawa Correctional Facility,
`Ewa, O`ahu, Hawai`i (TMK 9-06.05:11)

Introduction

Cultural Surveys Hawaii was contracted by Wilson Okamoto & Associates to provide an archaeological assessment for a portion of the Waiawa Correctional Facility. The assessment is in response to proposed improvements at the correctional facility. The scope of work for the assessment includes: (1) a brief historic and archaeological literature review; (2) field inspection of the proposed project-specific area; and (3) preparation of a brief report on the results of the literature search and field inspection.

The project area is situated within the Waiawa Military Reservation, a portion of which was converted to the State of Hawai`i's Waiawa Correctional Facility Minimum Security Prison. The facility is located on a broad plateau dissected by steep gulches at approximately 900 ft. above mean sea level (a.m.s.l.) on the western slope of the Koolau Range.

Historic Review

The literature review included four main sources: (1) *Sites of O`ahu* (Sterling and Summers 1978); (2) *Archaeological Reconnaissance and Inventory Survey of 3,600 Acres in Waiawa Ahupua`a, `Ewa, O`ahu* (Goodman *et al.* 1991); (3) *Archaeological Inventory Survey of a 1339 Acre Parcel at Castle and Cooke Lands within Portions of Waipi`o and Waiawa Ahupua`a, O`ahu* (Hammatt *et al.* 1996); and (4) *Hawaiian Traditional Customs and Practices Impact Assessment for the Development of a 1339 Acre Parcel at Castle and Cooke Lands within Portions of Waipi`o and Waiawa Ahupua`a, O`ahu* (Hammatt and Shideler 1996). The most pertinent document - Goodman *et al.* (1991) - focused on the *ahupua`a* of Waiawa and included portions of the Waiawa Correctional Facility.

The *ahupua`a* of Waiawa was claimed by Victoria Kamamalu, sister of Alexander Liholiho (Kamehameha IV) and Lot Kamehameha (Kamehameha V). Subsequently, through inheritance, Waiawa was passed to Bernice Pauahi Bishop and became part of her estate after her death.

Land use in Waiawa gradually shifted towards commercial agriculture during the late 1800s. By the 1890s the bulk of Waiawa was subleased to Oahu Sugar Co. In the early 1900s

commercial pineapple cultivation was initiated in the Waiawa area. In 1906, Dole's Hawaiian Pineapple Company opened a cannery with an associated camp in Waiawa, *makai* of the project area at approximately 600 ft. a.m.s.l. The pineapple fields were on the plateau lands including the project area.

In 1913 the Waiahole Water Co. was formed and the process of diverting water from Windward O`ahu to Central O`ahu was initiated. The ditch and tunnel system was completed in 1916. The Waiahole Ditch System (State Site 50-80-09-2268; Goodman *et al.* 1991) passes through the Waiawa Correctional Facility. With water now available to irrigate sugarcane, pineapple fields in upper Waiawa - presumably including the project area - were converted to cane cultivation.

After the United States entered World War II, a portion of upper Waiawa was taken over by the military for training purposes. "Between 1941 and 1945 [the Waiawa Military Reservation] was used as a training course for tanks and personnel. Other locations in [the Waiawa Reservation] were used as storage for munitions and supplies" (Goodman *et al.* 1991:102). After World War II, the Waiawa Training Area was converted to a communications center. Remaining structures of the communications center were given State Historic Site number 50-80-09-2272 and were described briefly:

The communications center consists of four buildings and a tunnel system: barracks (Feature 1), a residential building (Feature 2), a radio communication center (Feature 3), a building whose use is unknown (Feature 4), and a tunnel system (Feature 5) that extends under the radio communication center. Part of the tunnel was used for the antenna for the radio center. The use of the other part is unknown.

The old radio communication buildings and tunnel system (Features 1-5) have since been converted by the Waiawa Correctional Facility to residential housing, a chapel and security and operations facilities. (*Ibid.*:104)

Historic Summary

The project area was in pineapple cultivation *ca.* 1906-1930, followed by sugarcane cultivation, made possible by irrigation water from the Waiahole Ditch System (*i.e.* State Site 50-80-09-2268), until the beginning of World War II. From World War II until 1983 the project area was under the control of the U.S. military, first for tank and small arms training, then followed by a communications center (State Site 50-80-09-2272). Presently, the project area is utilized as the Waiawa Correctional Facility.

Field Inspection

On September 24, 1997 John Winieski of Cultural Surveys Hawaii conducted the field inspection portion of the assessment. Locations of proposed and in-progress facilities improvements were inspected and photographed. No historic sites of any kind were observed. An open trench for subsurface utilities revealed deep reddish brown sterile soil layers. Informal interviews with guards indicated that, occasionally, small spent cartridges and rocket launcher parts are found during subsurface excavations, evidence of World War II training

activities.

Recommendations

Based on the background literature research - which indicated extensive land modification related to commercial pineapple and sugarcane cultivation, followed by military utilization - and the negative field inspection results, no further archaeological research is recommended. The proposed and in-progress improvements to the existing Waiawa Correctional Facility should have no adverse effects on historic sites. However, in the unlikely event that any significant historic site is inadvertently discovered during the improvement process, all work should halt in the immediate area and an appropriate state agency (e.g. the State Historic Preservation Division/Department of Land and Natural Resources) should be notified.

References

- Goodman, Wendy and Richard C Nees
1991 *Archaeological Reconnaissance and Inventory Surveys of 3,600 Acres in Waiawa Ahupua`a, `Ewa, O`ahu*, with contributions by Gwen Hurst, Lisa Leimar, and Carolyn Orndoff, Supervising Archaeologist Jeffrey Pantaleo, Public Archaeology Section, Applied Research Group, Bishop Museum, Honolulu, HI.
- Hammatt, Hallett H., Leilani Pyle, Victoria Creed, Thomas Devereux, and Rodney Chiogioji
1996 *Archaeological Inventory Survey of a 1339-Acre Parcel at Castle and Cooke Lands within Portions of Waipi`o and Waiawa Ahupua`a O`ahu (TMK 9-4-06:01, 03 & 10 port.; and 9-5-03:01 port., 04 & 07; and 9-6-04:21)*, for Helber, Hastert and Fee, by Cultural Surveys Hawaii, Kailua, HI.
- Hammatt, Hallett H. and David Shideler
1996 *Hawaiian Traditional Customs and Practices Impact Assessment for the Development of a 1339-Acre Parcel at Castle and Cooke Lands Within Portions of Waipi`o and Waiawa Ahupua`a, O`ahu (TMK 9-4-06:01, 03 & 10 port. and 9-5-03:01 port., 04 & 07 and 9-6-04:21)*, prepared for Helber, Hastert, and Fee, by Cultural Surveys Hawaii, Kailua, HI.
- Sterling, Elspeth P. and Catherine C. Summers (comp.)
1978 *Sites of O`ahu*, Dept. of Anthropology, B.P. Bishop Museum, Honolulu, HI.

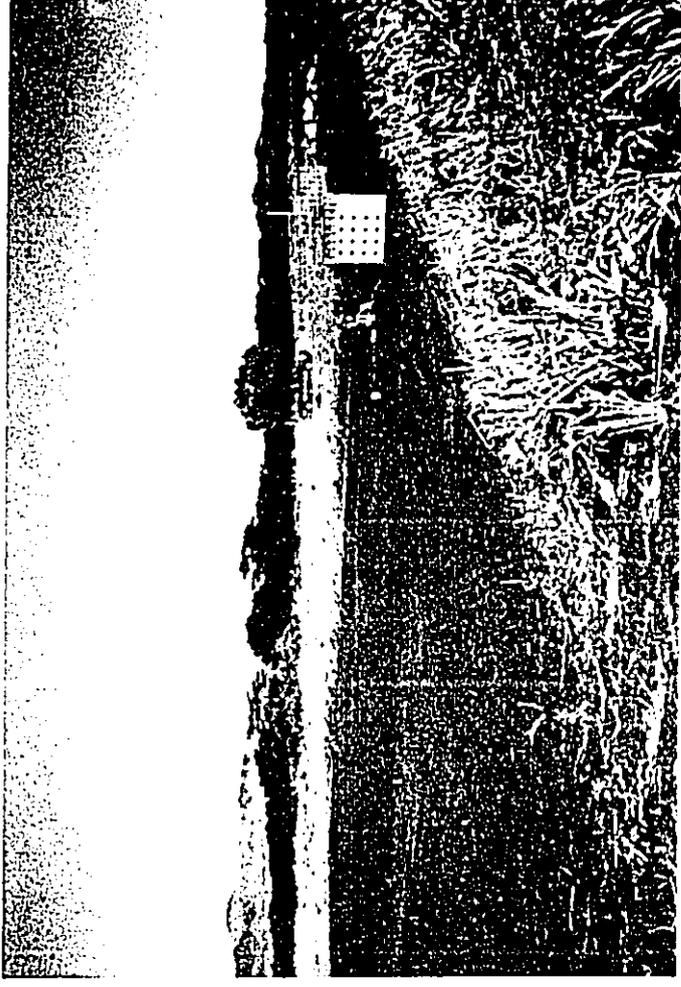
APPENDIX B

Photographs





1. Looking west at site for proposed 200-bed KASHBOX Program Facility.



2. Looking northwest at the north corner of Sewage Treatment Pond "B". Structure at right is the Reclaimed Water Pump Station.



3. Newly constructed Surface Water Treatment Plant.



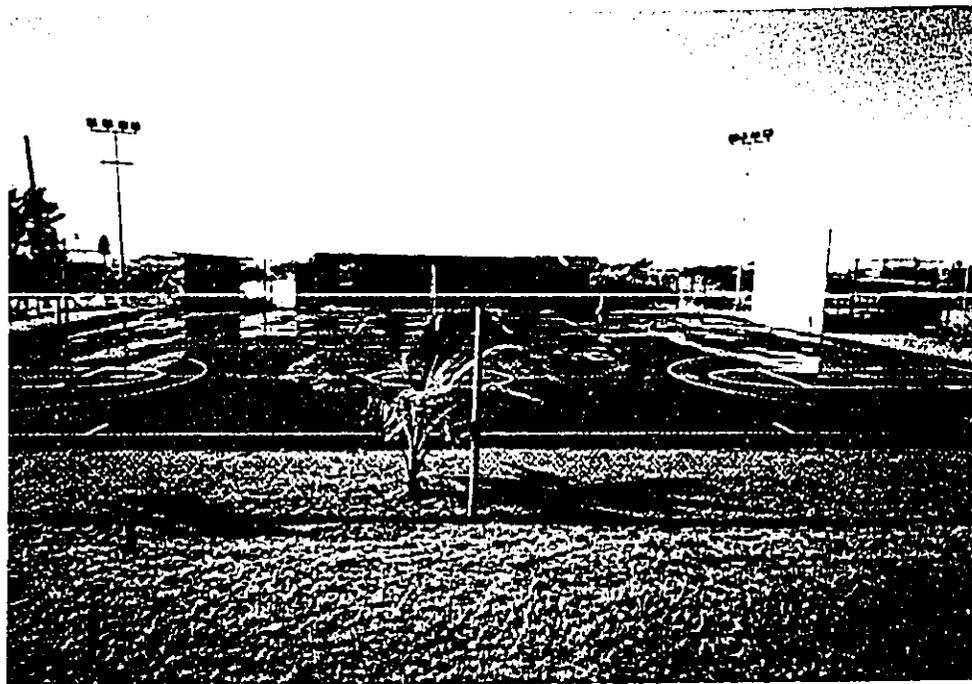
4. Tent structures housing 40 Domestic Violence Inmates.



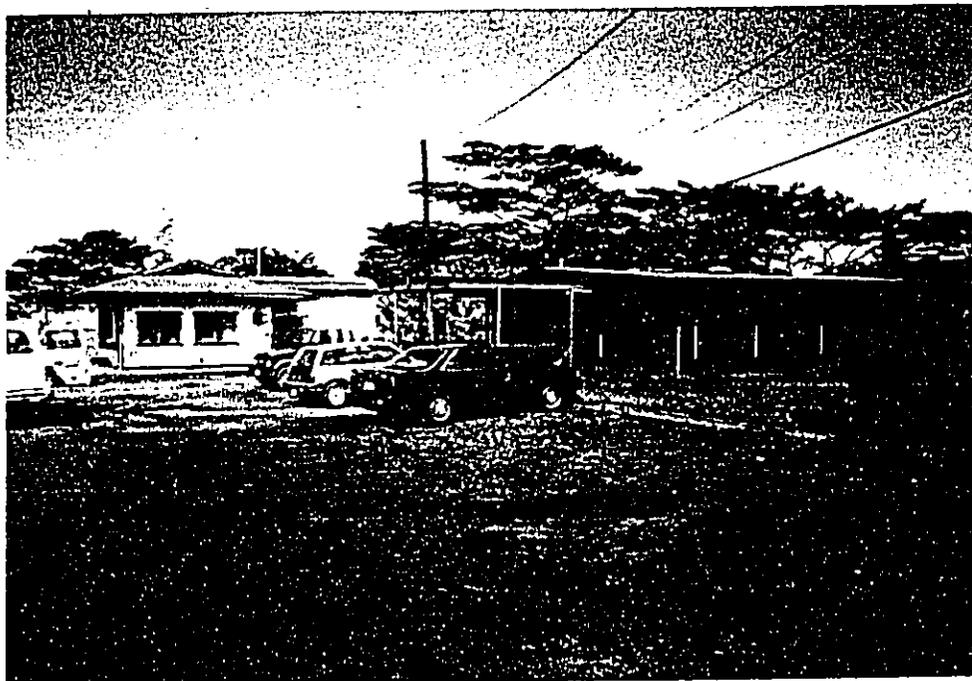
5. Administration building constructed in 1992. The 200-bed KASHBOX facility will be located beyond the left side of this photo.



6. Entrance to Educational Building constructed in 1988.



7. Recreational Court constructed in 1988.



8. Guard House at left and Staff Weight Training Room at right.
Entry Gate is visible to the left of the Guard House.