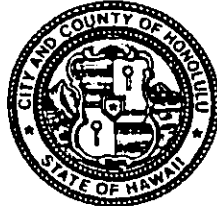


DEPARTMENT OF DESIGN AND CONSTRUCTION  
**CITY AND COUNTY OF HONOLULU**

850 SOUTH KING STREET, 11<sup>TH</sup> FLOOR  
HONOLULU, HAWAII 96813  
Phone: (808) 523-4564 • Fax: (808) 523-4567  
Web site: [www.co.honolulu.us](http://www.co.honolulu.us)

JEREMY HARRIS  
MAYOR



January 10, 2003

RECEIVED RAE M. LOUI, P.E.  
DIRECTOR

GEORGE T. TAMASHIRO, P.E.  
ASSISTANT DIRECTOR  
'03 JAN 10 P2:21

IN REPLY REFER TO:  
DK-561

OFFICE OF ENVIRONMENTAL  
QUALITY CONTROL

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
State Office Tower  
235 South Beretania Street, Room 702  
Honolulu, Hawaii 96813-2437

Dear Ms. Salmonson:

**Subject: Finding of No Significant Impact (FONSI)  
For the Aiea Town Center  
TMK:9-9-78: Parcels 1 through 15; (Oahu, Hawaii)**

The Department of Design and Construction has reviewed the comments received during the 30-day public comment period, which began on June 8, 2002. The Department of Design and Construction has determined that this project will have no significant environmental effect and has issued a Finding of No Significant Impact (FONSI) determination. Please publish a notice of this determination in the January 23, 2003 edition of The Environmental Notice.

We have enclosed four (4) copies of the Final EA/FONSI and a completed OEQC Bulletin Publication Form. If you have any questions regarding the Final EA, please have your staff contact the planning consultant Group 70 International, Inc. (Jeff Overton) at (808) 523-5866, ext. 104.

Very truly yours,

A handwritten signature in black ink, appearing to read "Rae M. Loui", written over a circular stamp or mark.

RAE M. LOUI, P.E.  
Director

RML:lk  
Enclosures

970 North Kalaheo Avenue  
Suite C-316  
Kailua, Oahu, HI 96734  
808.531.6708  
Fax 808.537.4084



**Remedial Action Report  
for  
Lead Impacted Soil**

**Former Aiea Sugar Mill  
99-193 Aiea Heights Road  
Aiea, Oahu, Hawaii  
TMK: [1] 9-9-5:Parcel (25)**

Clayton Project No. 85-01222.03  
October 17, 2002

---

*Prepared for:*

**BANK OF HAWAII  
Honolulu, Hawaii**

*Prepared by:*

**CLAYTON GROUP SERVICES, INC.  
970 North Kalaheo Avenue  
Suite C-316  
Kailua, Hawaii 96734  
808.531.6708**

## EXECUTIVE SUMMARY

The Bank of Hawaii retained Clayton Group Services, Inc. (Clayton) to conduct a remedial action that involved the excavation and disposal of lead-impacted soil at a portion (Lots 6 through 14) of the former Aiea Sugar Mill located at 99-193 Aiea Heights Drive, Aiea, Oahu, Hawaii. The Bank of Hawaii and State of Hawaii, Department of Health (DOH) entered into a Voluntary Response Program (VRP) Agreement for the former Aiea Sugar Mill on November 30, 2001. As part of the VRP Agreement, the Bank of Hawaii agreed to perform a remedial action to mitigate and manage risks at the site.

Under contract with the Bank of Hawaii, Clayton previously performed Remedial Investigations, a Human Health Risk Assessment, a Remedial Alternatives Analysis, and a Work Plan for Remedial Activities for the former Aiea Sugar Mill (Lots 6 through 14). The Remedial Investigations determined the nature and extent of contamination at the site. Health risks were evaluated in the Risk Assessment for various current and proposed future uses of the site. Remedial alternatives that protect public health, welfare and the environment by eliminating and controlling risk were evaluated in the Remedial Alternatives Analysis Report and its addendum.

The selected remedial action in accordance with both the State and National Contingency Plans involved the excavation and disposal of lead-impacted soils containing lead concentrations equal to or greater than 810 milligrams per kilogram (mg/kg) based on bulk, unsieved soil analysis. This remedial action was selected to achieve site exposure point concentrations (EPCs) less than 400 mg/kg, which is both the United States Environmental Protection Agency (EPA) residential Preliminary Remediation Goal (PRG) and the DOH Tier 1 Soil Action Level (SAL) for lead. Remediation goals meet clean-up standards as described in the Hawaii Environmental Response Law Chapter 128 D Part II, Voluntary Response Program.

A Draft Response Action Memorandum for the site was published by the DOH on July 15, 2002. After a thirty (30) day public comment period and a public meeting held on August 19, 2002, the DOH published the Final Response Action Memorandum on August 21, 2002. A work plan detailing the remedial action was submitted to the DOH by Clayton on July 26, 2002.

This report documents the remedial action conducted by Clayton that involved the excavation and disposal of lead-impacted soil at a portion (Lots 6 through 14) of the former Aiea Sugar Mill. The purpose of this project was to perform a remedial action at the former Aiea Sugar Mill that would achieve acceptable levels of risk as defined and described in the Risk Assessment, the Remedial Alternatives Analysis and its addendum, and the Final Response Action Memorandum. In accordance with EPA guidance, an acceptable level of risk is defined as post-remedial EPCs in site soils that would result in a less than 5% probability that childhood/fetal blood lead concentrations would exceed 10 micrograms per deciliter ( $\mu\text{g}/\text{dl}$ ).

Five primary tasks were involved in the remedial action: site survey, soil profiling, excavation of lead-impacted soil, disposal of lead-impacted soil, and post-remediation confirmation sampling.

Clayton retained a licensed surveyor to survey and mark former sampling points, as necessary to identify areas to be excavated. After excavation and backfilling, the surveyor returned to stake the post-remediation confirmation sampling points.

Twenty-one profile samples were collected from the areas to be excavated at the site and analyzed for Toxicity Characteristics Leaching Procedure (TCLP)- lead using EPA Method 6010B-TCLP, as directed by DOH. In eighteen (18) of the profile samples, lead was not detected above the laboratory method detection limit of 0.1 milligrams per liter (mg/l). The lead concentrations in the three remaining samples were 0.13, 0.18, and 0.25 mg/l, which were all well below the TCLP regulatory level for lead of 5 mg/l. Consequently, the soil was accepted for disposal in the Waimanalo Gulch Landfill.

Lead-impacted soil with total lead concentrations of 810 mg/kg or greater (based on bulk, unsieved soil) was excavated from the site. Thirty-five (35) hot-spot areas were initially identified for excavation. During post-remedial confirmation sampling, nineteen (19) additional areas were discovered with lead concentrations in the fine soil fraction (< 250 microns) exceeding the clean-up level of 810 mg/kg. Eighteen (18) of these areas were subsequently excavated. One area located on Lot 6 (860 mg/kg) was not excavated. A total of fifty-five (55) areas were excavated at the site.

A total of 2,564 tons of lead-impacted soil were excavated and loaded into trucks and transported to Waimanalo Gulch Landfill for disposal. Acceptance of the soil at the landfill was granted based on profile sampling conducted prior to excavation.

After lead-impacted areas were excavated and backfilled with clean backfill, post-remediation confirmation sampling was conducted to confirm that post-remedial lead concentrations at the site meet clean-up requirements. An approximately 50 foot by 50-foot grid pattern was laid out over the entire site (Lots 6 - 14) that included one hundred thirty-six grid sections. A borehole was drilled in the center of each grid using a direct-push sampling rig.

Soil samples were collected from each borehole at five depth intervals of 0 to 1-foot, 1 to 2-feet, 2 to 4-feet, 4 to 6-feet, and 6 to 8-feet, or until refusal was encountered. Samples were collected and shipped to Del Mar Analytical located in Irvine, California via express delivery. At the analytical laboratory, the samples were gently sieved through a 250-micron sieve (No. 60) and the fine fraction was analyzed for total lead using EPA method 6010B.

Five hundred and sixty-eight (568) samples were collected during post-remediation confirmation sampling. Lead concentrations in the fine soil fraction ranged from below the laboratory method detection limit of 8 mg/kg to 3,400 mg/kg. Areas identified in the post-remediation confirmation sampling with lead concentrations in the fine soil fraction

greater than the clean-up level of 810 mg/kg were subsequently excavated and backfilled with clean backfill. It should be noted that the clean-up level of 810 mg/kg was based on unsieved, total lead concentrations. Therefore, excavation of these additional areas with fine fraction concentrations greater than 810 mg/kg was done to minimize the risk and expense of having to perform additional excavation activities following post remedial recalculation of exposure point concentrations. A concentration of 810 mg/kg in the fine fraction represents an unsieved lead concentration of 647 mg/kg.

In conclusion, soils were removed from the site with concentrations equal to or greater than 810 mg/kg as directed in the Work Plan for Remedial Activities of Lead Impacted Soils. A total of 2,564 tons of lead impacted soil were excavated from the site and disposed in Waimanalo Gulch Landfill. The post-remediation confirmation sampling data has undergone statistical analysis, which confirmed that post-remediation EPCs (based on the 95<sup>th</sup> upper confidence limit of the mean (UCL<sub>95</sub>)) are less than 400 mg/kg (the EPA residential PRG and the State of Hawaii DOH Tier 1 SAL for lead). This statistical analysis will be presented in an amendment to the Human Health Risk Assessment.

JAN 23 2003

2003-01-23-0A-PEA

FILE COPY

**('Aiea Town Center  
Master Plan**)

---

'Aiea, O'ahu, Hawai'i

**Final Environmental Assessment**

Prepared For

City and County of Honolulu  
Department of Design and Construction  
650 South King Street  
Honolulu, Hawai'i 96813

**January 2003**



Group 70 International • Architecture • Planning • Interior Design • Environmental Services • Building Diagnostics  
925 Bethel Street, Fifth Floor • Honolulu, Hawaii 96813 • Phone (808) 523-5866 FAX (808) 523-5874

**'Aiea Town Center  
Master Plan**

---

'Aiea, O'ahu, Hawai'i

TMK: 9-9-78: Parcels 1 through 15

**Final Environmental Assessment**

**Prepared for**

City and County of Honolulu  
Department of Design and Construction  
650 South King Street  
Honolulu, Hawai'i 96813

**Prepared By:**

Group 70 International, Inc.  
Architecture • Planning • Interior Design • Environmental Services  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawai'i 96813

**January 2003**

'AIEA TOWN CENTER MASTER PLAN

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Section 1.0  

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Introduction

**'AIEA TOWN CENTER MASTER PLAN**

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## 1.0 INTRODUCTION

This Draft Environmental Assessment (EA) has been prepared in accordance with the requirements of Chapter 343, HRS and Hawai'i Administrative Rules, Title 11, Department of Health, as the proposed action involves the use of County administered funds.

### 1.1 PROJECT INFORMATION SUMMARY

**Project Name:** 'Aiea Town Center Master Plan

**Applicant:** Department of Design and Construction  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, HI 96813  
Contact: David Kumasaka  
(808) 349-2650, Fax: 527-6931

**Agent:** Group 70 International, Inc.  
925 Bethel Street, Fifth Floor  
Honolulu, Hawai'i 96813  
Contact: Jeff Overton, AICP  
(808) 523-5866, Ext.104, joverton@group70int.com

**Accepting Authority:** Department of Design and Construction, City and County of Honolulu

**Project Location:** Former 'Aiea Sugar Mill, 'Aiea, O'ahu, Hawai'i (Figures 1-1 & 1-2)

**Landowner:** ~~Bank of Hawai'i~~

**Tax Map Key  
& Landowner:** TMK: 9-9-78 (Figure 1-3 and 1-4)  
City and County of Honolulu:  
Town Center: Parcels 7 through 14  
Senior Facility: Parcel 6  
Bank of Hawai'i  
Library: Parcels 1-5  
Greenbelt/Residential: Parcel 15

**Land Areas:** Town Center: 3.43 acres  
Library: 2.3 acres  
Senior Facility 3.45 acres  
Greenbelt/Residential: 4.09 acres

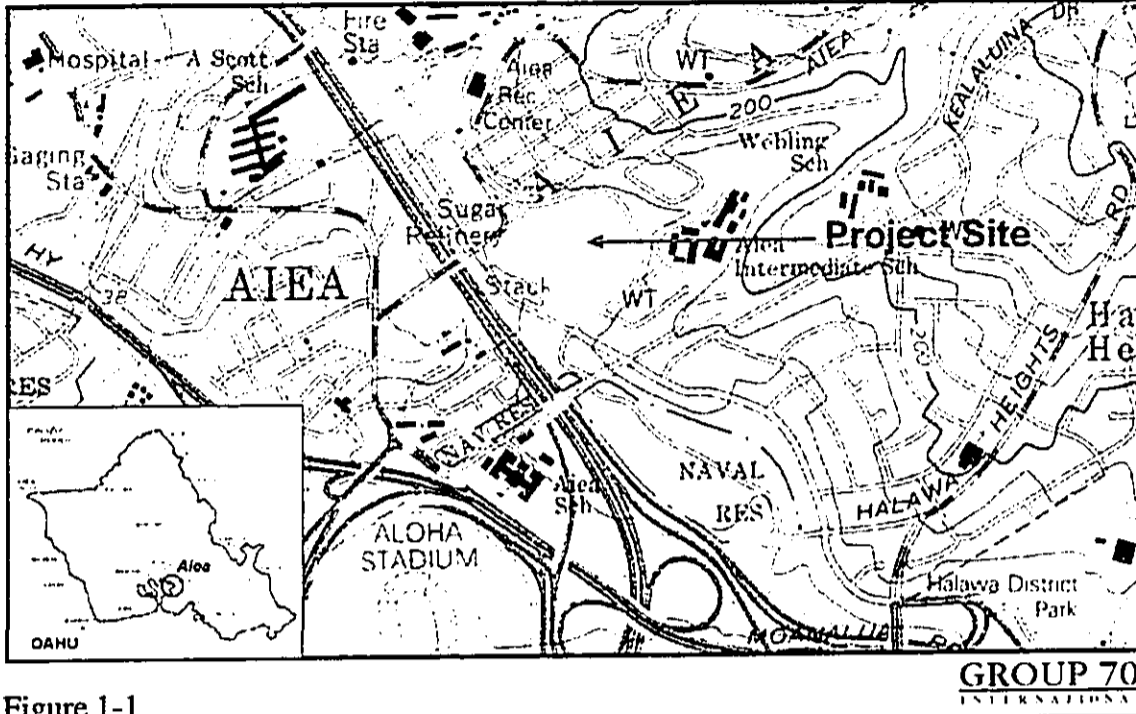
**City / County Zoning:** I-2 Intensive Industrial

**City / County Development Plan:** Primary Urban Center: Industrial

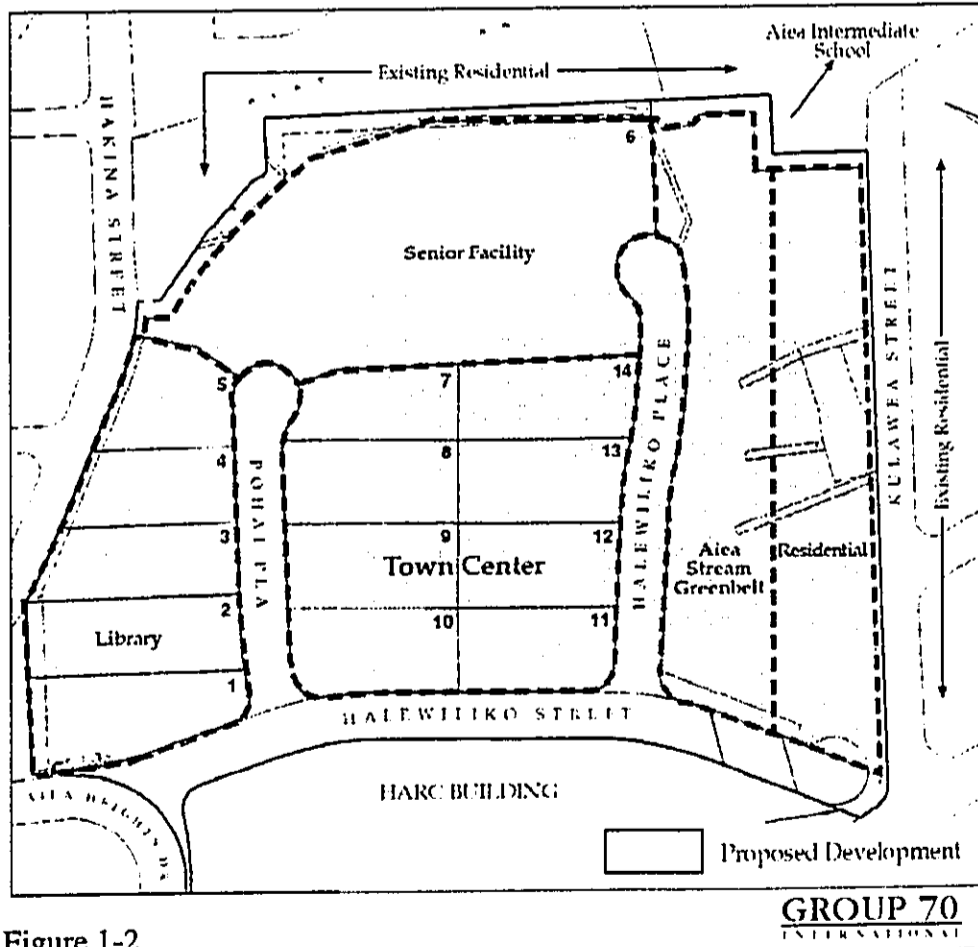
**State Land Use District:** Urban

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**Figure 1-1**  
**Project Location Map**



**Figure 1-2**  
**Project Site Map**

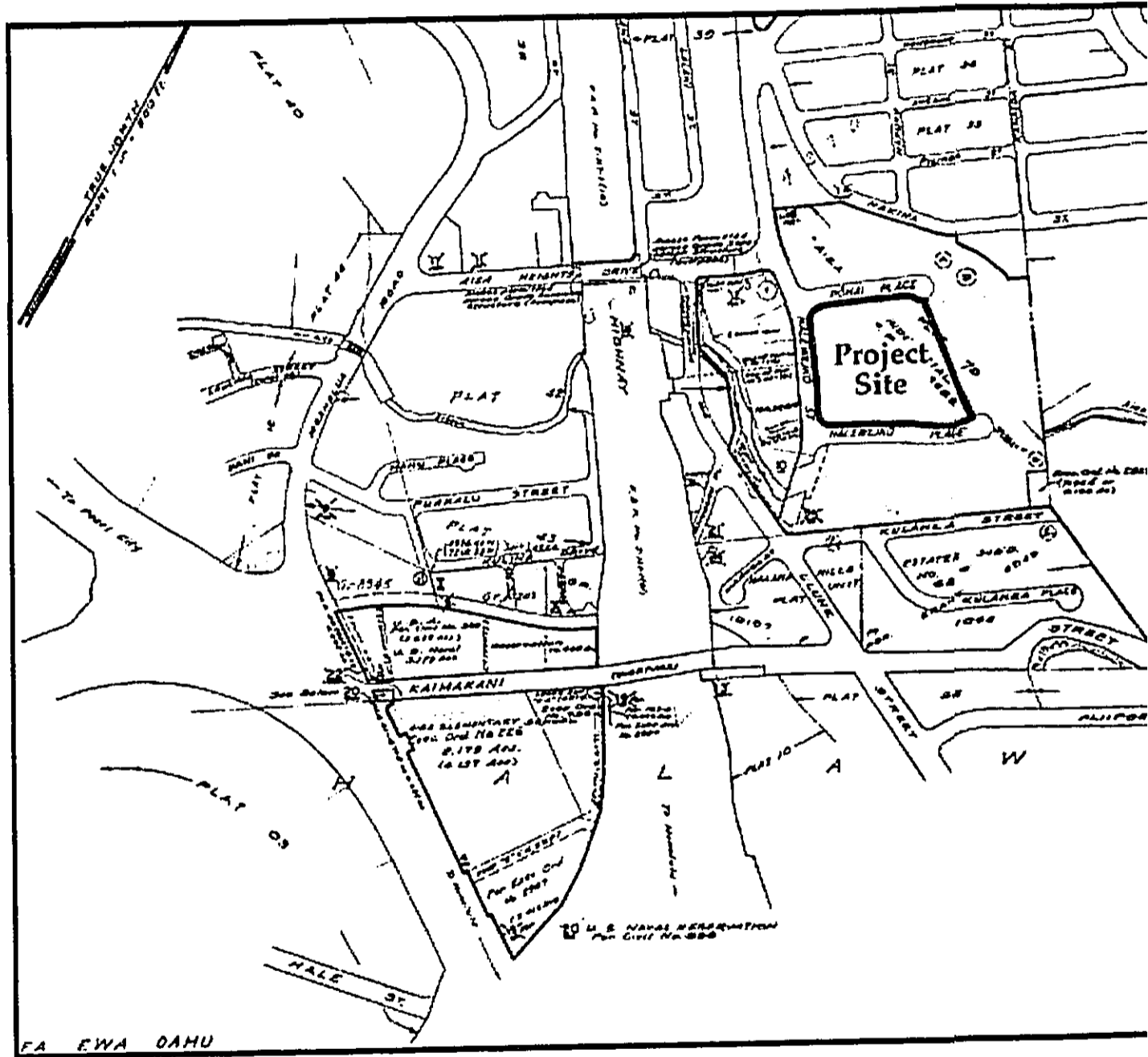
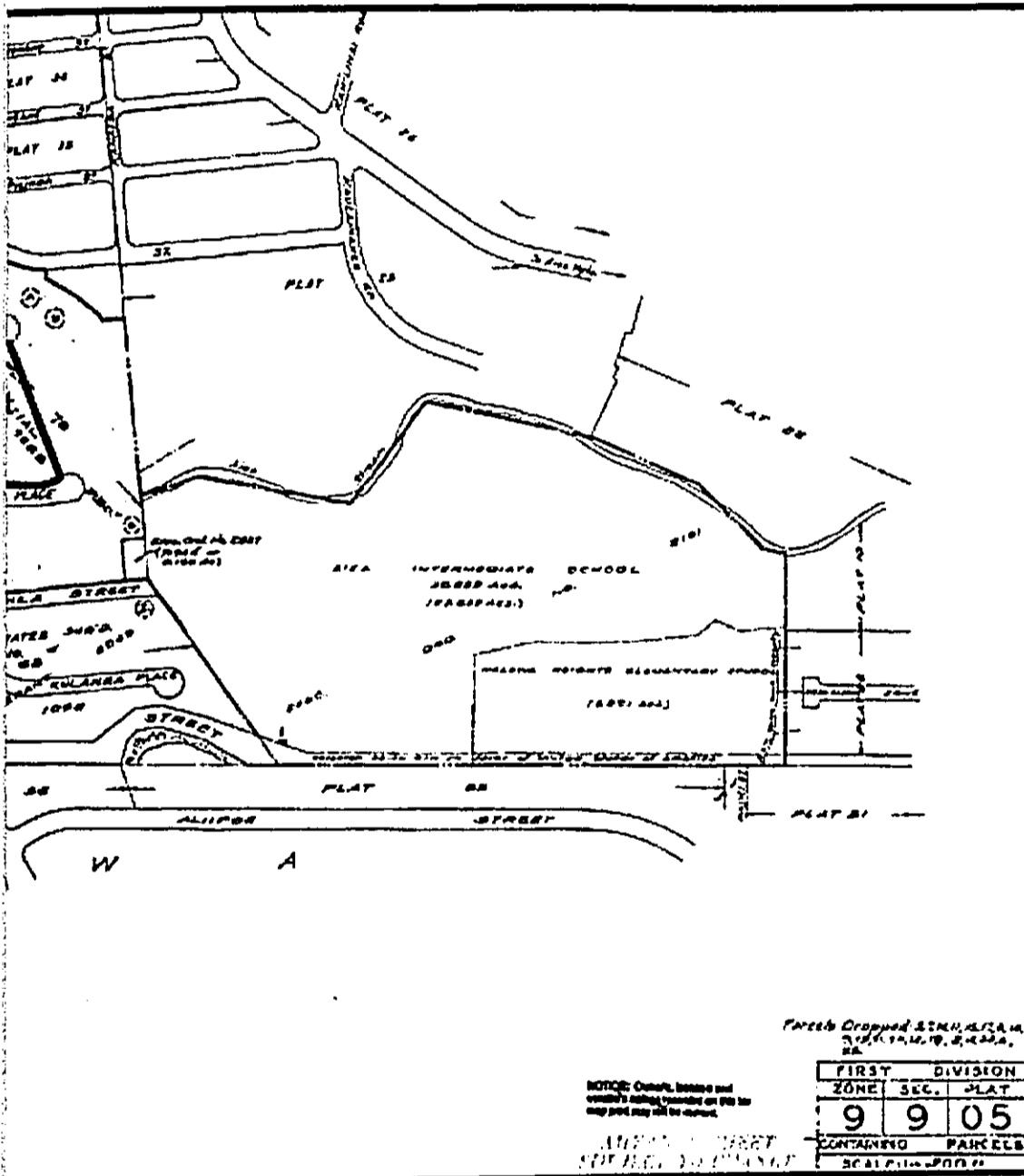


Figure 1-3  
Project Site Tax Map Key

**DOCUMENT CAPTURED AS RECEIVED**

**MASTER PLAN**  
**Valuation Assessment •**



**GROUP 70**  
 INTERNATIONAL

'AIEA TOWN CENTER MASTER PLAN

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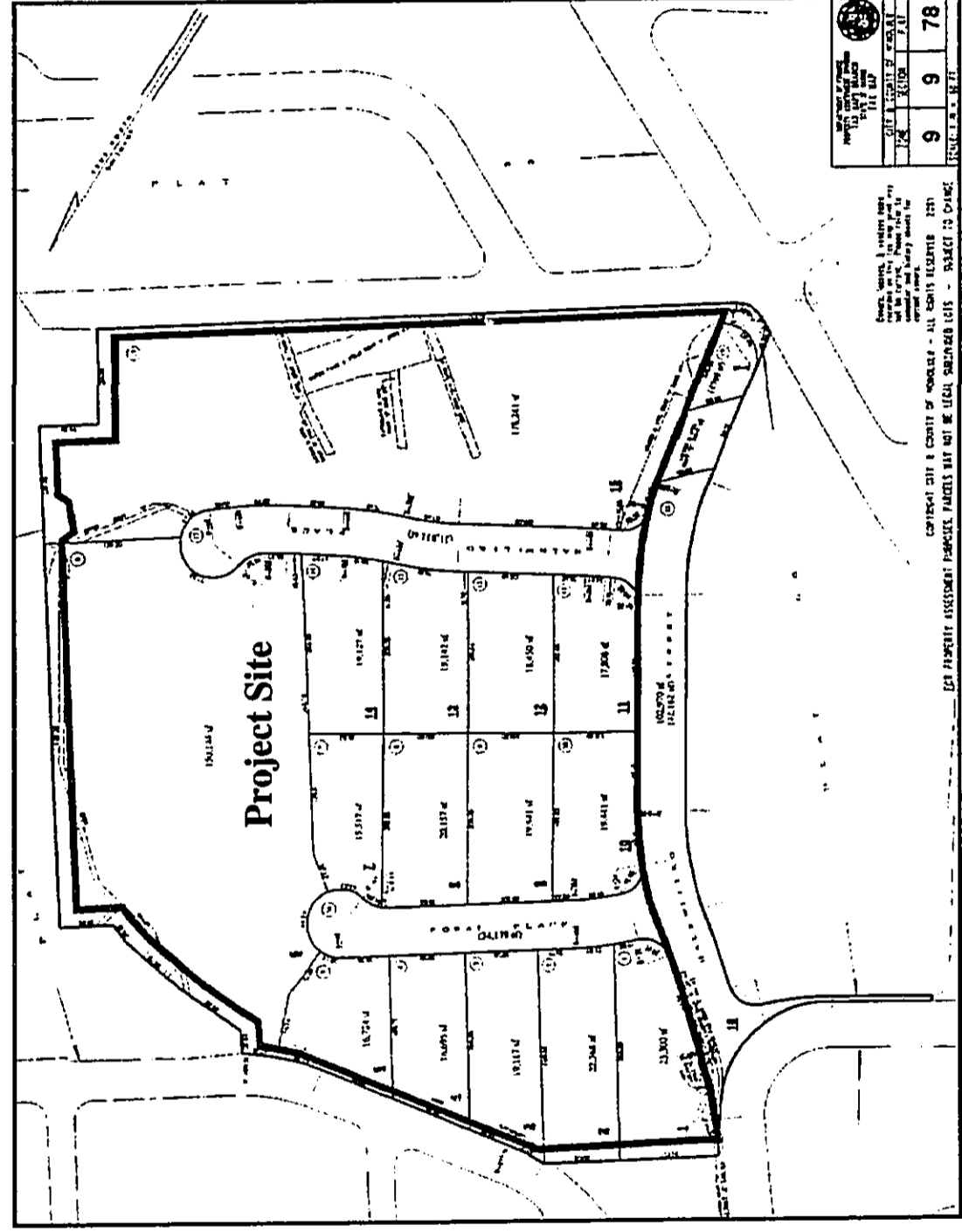


Figure 1-4  
Project Site Plat



## 'AIEA TOWN CENTER MASTER PLAN

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### 1.2 OVERVIEW OF THE PROPOSED PROJECT

The project site is located at the site of the former 'Aiea Sugar Mill, which began as the Halawa Plantation Company in 1898. A year later, the company changed its name to the Honolulu Plantation Company. The plantation originally consisted of 4,000 acres of sugar land extending from the coastal plain around Pearl Harbor up to the hillsides. The plantation operations prospered in the first half of the 20<sup>th</sup> Century, leading to the growth of Old 'Aiea Town which served as the commercial, social, cultural, and communication hub of the community.

At about the end of World War I, the Honolulu Plantation Company installed equipment to produce its own refined sugar. Plantation operations ended in 1947 after the company lost a significant portion of their prime sugar cane fields to military operations, roads, and commercial and housing developments. In 1947, California and Hawaiian Sugar Company (C & H) bought the refinery operations and continued operations there until 1994. The mill site was then sold to A & B Properties who built a smaller liquid sugar refinery behind the old mill in 1994 to meet Hawai'i's local demand. This facility was closed in 1996.

A clothing manufacturer, Crazy Shirts purchased the sugar mill property in 1994 with the intention of preserving the mill as a historic landmark and developing the site as its corporate headquarters. However, after determining that the renovation costs would be too expensive, Crazy Shirts razed the sugar mill in 1998 despite community opposition. In 1997, an Environmental Impact Statement was prepared on behalf Crazy Shirts to develop the project site as a shopping center. In 1999, the State of Hawai'i prepared an Environmental Assessment to construct a new regional library on the property fronting Kulawea Place. However, neither project was constructed. The former sugar mill property was put back on the market and the Bank of Hawai'i took over the property from Crazy Shirts in May 2001 with the intention of also selling the property.

The concept of redeveloping the old sugar mill site as a community center grew out of the 'Aiea/Pearl City Community Vision Team ('Aiea Town Center FY 2001 CIP Project). Residents consider the old sugar mill site as an ideal location for the Town Center because of its central location and importance in the area's history. As a result of this community initiative, the City purchased the Town Center and Senior Facility parcels in December 2002. The Bank of Hawai'i continues to own the Library and Greenbelt/Residential Parcels. ~~has been in negotiations with the Bank of Hawai'i to purchase the site and develop it as the 'Aiea Town Center. There are several potential options for the remediation of lead soils, and the Bank and City are working on reaching a solution.~~ The 'Aiea Town Center Master Plan has been developed to provide the 'Aiea community and the City and County of Honolulu Department of Design and Construction with strategies and guidelines for the future development and use of the former 'Aiea sugar mill site.

The Master Plan was developed through a community planning "charrette" or intensive working session. Two sessions were held that involved the extensive participation of community members as well as the City's design team. The charrette process established a definition of the overall desired town center character.

Five elements are proposed for the site: the 'Aiea Town Center, the library, a senior housing facility, a greenbelt, and residential development. An interim passive park will be developed

## 'AIEA TOWN CENTER MASTER PLAN

### • Final Environmental Assessment •

before the Town Center is constructed. The Master Plan focuses on the 'Aiea Town Center but general guidelines for the future development of the library, senior housing facility, greenbelt, and residential development are included. Any residential development, however, will require an extensive study of hazardous materials in the area.

The Town Center will emulate the design and community feeling of old 'Aiea Town in order to create an informal setting where all generations can gather. Uses such as a daycare center and an outdoor performance area are planned to draw people to the Town Center and make the area the heart of community life. Community members will be able to participate in community events, attend classes and meetings, or simply hang out with friends and family. The uses will have a synergistic relationship with the proposed library and senior housing facility as well as the neighboring residential area and school.

The interim park will be built within 1-2 years. The Town Center will be constructed in two phases and will be completed in 5-6 years. The Town Center includes the construction of an approximately 20,000 square foot community center made up of three single story buildings. The total cost for the project will be approximately \$6,036,000.

### 1.3 AGENCIES CONTACTED DURING THE PRE-CONSULTATION AND DRAFT EA REVIEW PERIODS

Listed below are the agencies and other parties contacted regarding the proposed project prior to the publication of the Draft EA. Parties marked with an asterisk [\*] provided written comments. Copies of the comment and response letters are provided in Appendix B.

Those contacted during the pre-consultation period were:

#### State Agencies

Department of Business, Economic Development & Tourism, Planning Office  
Department of Health\*  
Department of Land and Natural Resources  
Department of Land and Natural Resources, Historic Preservation Division\*  
Office of Environment Quality Control\*  
Office of Hawaiian Affairs

#### City & County of Honolulu Agencies

'Aiea Neighborhood Board  
'Aiea/Pearl City Community Vision Team\*  
Board of Water Supply\*  
Fire Department\*  
Department of Design and Construction  
Department of Planning and Permitting\*  
Department of Parks and Recreation\*  
Department of Facility Maintenance  
Police Department

'AIEA TOWN CENTER MASTER PLAN

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Other Parties

'Aiea Public Library	Tom Herman	Kimberly Mills	Blake Oshiro
Bonnie Arakawa	Wesley Ho	Sue Nagao	Sandy Peitzer
David Arakawa	Richard Ito	June Nakamura	Wayne Suzuki
William Daves	Wade Kagawa	Jane Nakayama	Claire Tamamoto
Earline Funakoshi	Scott Kamiya	S. Nakamura	Sandra Thompson
Alko Guerin	Molly Kihara	Kay Nakata	Polly Yoder
Denise Haverty	Traci Kubota	Jim Naylou	Rene Yoshida
Fray Heath	Leticia Lubo	Gary Okino	

Following the completion of the Draft EA, all those listed below were provided with copies of the Draft EA and were requested to provide comments. Those parties that provided written comments are indicated with an asterisk [\*]. Copies of the comment and response letters are provided in Appendix C.

State Agencies

Department of Business, Economic Development & Tourism, Planning Office  
Department of Health\*  
Department of Land and Natural Resources\*  
Department of Land and Natural Resources, Historic Preservation Division\*  
Office of Environment Quality Control\*  
Office of Hawaiian Affairs\*

City & County of Honolulu Agencies

'Aiea Neighborhood Board  
Board of Water Supply\*  
Fire Department\*  
Department of Design and Construction  
Department of Planning and Permitting\*  
Department of Parks and Recreation\*  
Department of Facility Maintenance\*  
Police Department\*  
Community Resources  
Department of Community Services\*  
Municipal Library

Other Parties

'Aiea Public Library	Earline Funakoshi	Molly Kihara	Gary Okino
Bank of Hawai'i	Wesley Ho	Leeward Com. College	Blake Oshiro
Bonnie Arakawa	Richard Ito	Kimberly Mills	Wayne Suzuki
David Arakawa	Wade Kagawa	June Nakamura	Claire Tamamoto
Carlsmith Ball*			

**'AIEA TOWN CENTER MASTER PLAN**

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• Final Environmental Assessment •

**1.4 CONTENTS OF THE FINAL ENVIRONMENTAL ASSESSMENT**

This Final ~~Draft~~ Environmental Assessment evaluates the potential impacts of the 'Aiea Town Center on the natural and human environment. This document is presented in six sections. Section 1.0 contains the introduction and project overview. Section 2.0 describes the proposed project and Section 3.0 addresses the environmental, social, cultural and economic impacts of the proposed project. Alternatives to the proposed project are presented in Section 4.0. A review of the appropriate existing State and County policies and plans is contained in Section 5.0. Section 6.0 contains a statement of anticipated determination, findings, and reasons supporting the anticipated determination.

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Section 2.0  
Project Description

## 2.0 PROJECT DESCRIPTION

### 2.1 PROJECT LOCATION AND SITE CHARACTERISTICS

The 'Aiea Town Center project site is located approximately 7 miles from Honolulu in 'Aiea. The 'Aiea Town Center project site is part of the larger former 'Aiea Sugar Mill property. Three new streets, Halewiliko Street, Pohai Place and Halewiliko Place, have been installed in the area as part of the earlier plans to turn the area into an industrial subdivision.

The former 'Aiea Sugar mill site can be divided into four distinct areas. The Town Center, senior facility, and library parcels are the focus of study in the Master Plan. The five sections of the former mill are depicted in Figure 2-1 and are described below:

- **Town Center Parcels:** This area includes TMK 9-9-78, Parcels 7-14 which are owned by the City and County of Honolulu. These parcels are the primary focus of the Master Plan. The total area is 3.43 acres. These parcels are bounded by Halewiliko Place on the east, Halewiliko Road on the south, and Pohai Place on the west. The senior facility lot, TMK 9-9-78, Parcel 6 provides the northern boundary. This Town Center Parcels are essentially vacant.
- **Senior Facility Parcel:** This area, which is owned by the City and County of Honolulu, includes TMK 9-9-78, Parcel 6 and is 3.45 acres in size. This parcel is bounded by TMK 9-9-78, Parcel 15 on the east, and Parcels 7 and 14 on the south. Several residential properties provide the northern and northwestern boundary. Portions of the library and Town Center Site, TMK 9-9-78, Parcel 5, 7, and 14, form the southwestern boundary. The Master Plan provides general guidelines for the future use of this site.
- **Library Parcels:** The library site includes TMK 9-9-78, Parcels 1-5 which is owned by the Bank of Hawai'i. It is 2.3 acres in size. Halewiliko Road and 'Aiea Heights Drive provide the southern boundary. Pohai Place is the eastern boundary and the Senior Facility, Parcel 6, provides the northern boundary. Hakina Street and several residential properties border the properties to the west. The project area is currently vacant. The Master Plan provides some guidelines for the development of this area as a library.
- **Greenbelt/Residential:** The 'Aiea Stream flows through Tax Map Key Number 9-9-78, Parcel 15. The parcel, 4.09 acres in size, is currently vacant and is owned by the Bank of Hawai'i. This parcel borders both the Town Center and Senior Facility. It also borders Halewiliko Road on the South and Kulawea Street on the east. The parcel is currently vacant. The Master Plan provides some preliminary recommendations for the future development of this area.

## 'AIEA TOWN CENTER MASTER PLAN

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Existing infrastructure improvements primarily consist of access roads, utility lines, potable water, and waste water lines all sized previously to accommodate the industrial activities. Existing land uses at the project site are depicted in Figure 2-1.

Hazardous materials have been discovered at the property since the Bank of Hawai'i acquired the property in May 2001. The hazardous materials contamination, comprised mostly of lead, is believed to have occurred when the mill was in operation. The lead contamination is concentrated on TML 9-9-78, Parcels 7-14 (Clayton 2001). Prior to the City's purchase of Parcels 6-14, a remedial action was implemented for these Parcels in accordance with both the State and National Contingency Plans that involved the excavation and disposal of lead-impacted soils containing lead concentrations greater than 810 milligrams per kilogram (mg/kg). ~~In addition, petroleum impacted soil at the fuel oil pump house, line, and receiving tank on Parcel 6 is a concern.~~ The level of lead contamination on Parcel 15 has not been investigated but contamination is expected.

The project site is located within a developed urban residential neighborhood. The administrative offices and laboratories of the Hawai'i Agriculture Research Center (HARC) occupy a portion of the former 'Aiea Sugar Mill site. HARC is a research center for forestry, coffee, vegetable crops, tropical fruits, and many other diversified crops in addition to sugarcane. 'Aiea Intermediate School is located to the northeast of the project site.

## 2.2 DESCRIPTION OF THE PROPOSED PROJECT

The Master Plan proposes the following five elements for the site: the 'Aiea Town Center, the library, a senior housing facility, a greenbelt, and residential development. The Master Plan focuses on the Town Center but general guidelines are provided for the library, senior housing facility, greenbelt, and residential development. The complete Master Plan is provided in Appendix A. The design concept for the 'Aiea Town Center is shown in Figure 2-2.

Pedestrians will be able to enter the site from several points. Pedestrian access from the residential areas west of the library will be provided through ramps and steps. 'Aiea Intermediate School students will enter the area by crossing the stream and the planned greenbelt. Students coming from 'Aiea High School will be able to enter the area via a pathway near the library.

A bus stop will be located in front of the Town Center to provide easy public transit access to the facility. Parking will be concentrated on the perimeter of the site, with 135 parking spaces designated for the Town Center. All parking lots will be landscaped to enhance their appearance and blend them with the tree-lined walkways and open areas. To minimize the paved areas, a portion of the lot adjacent to the daycare area on the design scheme will be grassed and used for event parking only. During off-hours, the drop-off area and parking lots will serve as loading zones for community events.

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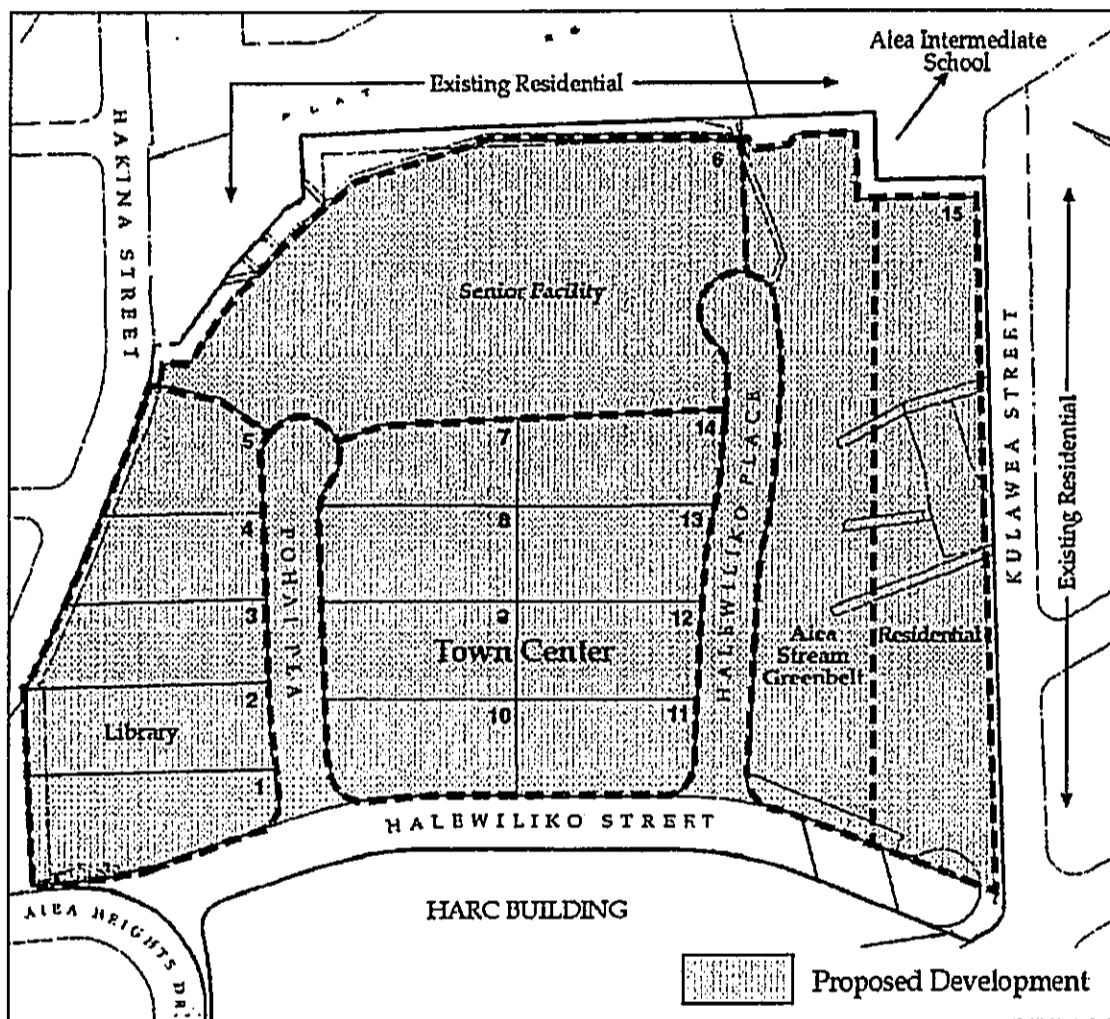


Figure 2-1  
Land Uses Surrounding the Project Site

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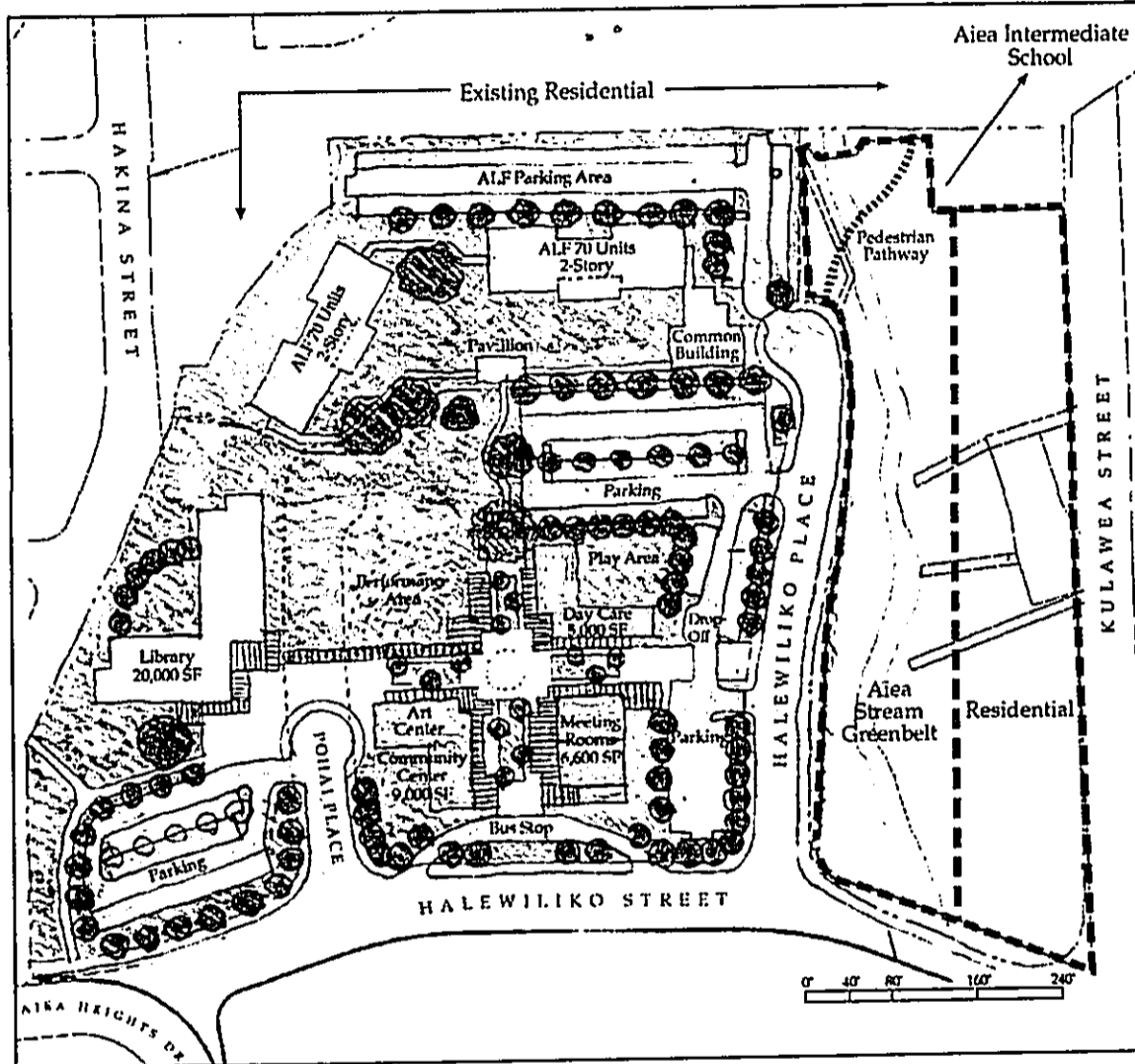


Figure 2-2  
**'Aiea Town Center Design Scheme**

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## 'AIEA TOWN CENTER MASTER PLAN

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The library, senior facility, and Town Center will share the central open space depicted in Figure 2-2. Part of this open space is designated as a pavilion-style performance area. This landscaped area will slope gently for comfortable seating with good visibility.

The existing roadway on the western portion of the property has been shortened to provide pedestrian access between the library and Town Center. Dotted lines show the location of the existing roadway (Figure 2-2). The area will remain accessible to fire and emergency vehicles. The existing roadway located on the eastern portion of the property has been maintained to provide vehicular access to the Town Center parking lot and the senior facility.

The intersection of 'Aiea Heights Drive with Halewiliko Street will be designed as a gateway and entryway to the Town Center. When motorists and pedestrians approach the Town Center from 'Aiea Heights Drive, the library will be the most visible structure and, as such, it can be the landmark for the community. The library parking lot that fronts Halewiliko Street will be landscaped appropriately to provide an attractive streetscape. Town Center signage will also be developed.

The project includes a safe and efficient transportation plan for the elderly. Transportation for the elderly will be provided by existing services such as the Handi-Van. Sheltered waiting areas and pickup/drop-off locations will be provided. Accessible parking will be located in proximity to buildings that the handicapped and elderly visit most frequently. Internally, all facilities, including sidewalks and ramps will comply with ADA so that circulation of elderly persons will not be constrained.

#### **2.2.1 Town Center**

The design concept of the Town Center is based on Old 'Aiea Town which consisted of plantation style wooden buildings with covered lanais. This building style is typical of sugar mill towns in Hawai'i. The buildings in 'Aiea Town Center will consist of three one-story structures approximately 30 feet in height.

#### **2.2.2 Library**

Although the primary focus of the Master Plan is the 'Aiea Town Center, key elements that will guide the design of the library have also been developed. (The State of Hawai'i is not currently proceeding with plans to purchase the Parcels from the Bank of Hawai'i.)

The current 'Aiea Library is considered inadequate and the community has requested an upgraded facility for several years. The proposed location is favored because of its proximity to 'Aiea High School, 'Aiea Intermediate School, and Webling Elementary School. In addition, the library will compliment the Town Center by drawing people and activity to the area. It will also provide amenities to residents of the Senior Center.

The library, situated behind the parking lot in an area of higher elevation, will be a prominent landmark in the community. It will be directly visible from 'Aiea Heights Drive.

## 'AIEA TOWN CENTER MASTER PLAN

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The library will be a one to two story building with a minimum of 20,000 square feet (Figure 2-2). The proposed square footage is based on input from the community during the charrette process. The maximum building height will be 35 feet. The design will be compatible with the Town Center and the surrounding residential area.

#### **2.2.3 Senior Facility**

The senior facility, such as an independent or assisted living facility, is planned for the northern portion of the project site because it is compatible with the proposed Town Center and library. The 'Aiea community has identified senior care facilities as an area need. The proposed senior facility will be located near medical services, commercial areas, bus lines, and the proposed library and Town Center. The senior facility will also benefit the Town Center by bringing activity to the center.

An existing roadway on the east side of the property is proposed as the access to the senior facility. The parking lot will be situated behind the senior facility. The exact number of parking stalls will be determined when the facility is designed.

The units will be located in one or more separate two-story "plantation" style buildings in order to avoid the use of overly large and incompatible building forms. The maximum height of the buildings will be 35 feet. 140 assisted living units were identified in the Master Plan. However, this number, which is based on input from the charrette process and other assisted living projects, is estimation and will probably change as the project is further developed and the type of senior facility is determined.

The development of the site will be afforded to a nonprofit organization through a request for proposals process.

#### **2.2.4 'Aiea Stream Greenbelt**

Although the 'Aiea Stream is mostly channelized, the area around the 'Aiea Stream will remain in a natural state. This greenbelt will provide opportunities for passive recreation. A pathway will be developed along the stream. The pedestrian pathway at the northern portion of the parcel will connect the greenbelt with the Town Center as well as provide pedestrian access to the Town Center from 'Aiea Intermediate School. There are hazardous materials located in this area.

The City does not currently own the parcel and all maintenance is completed by the private owner.

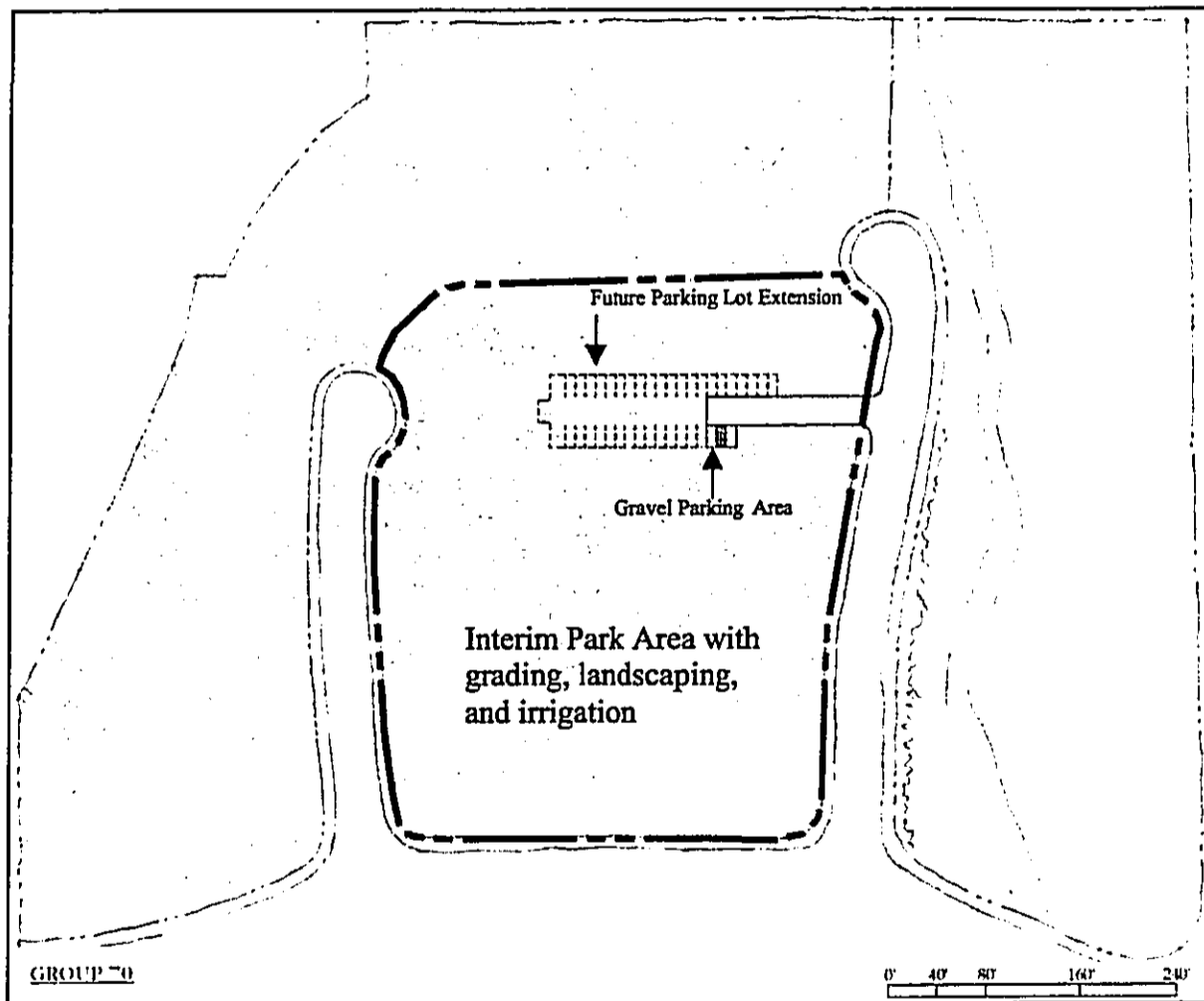
#### **2.2.5 Residential Development**

The area bordering Kulawea Street could be developed as a residential area. Low density residential type housing would be compatible with the senior facility and the neighboring residential area. However, the parcel is currently owned by the Bank of Hawai'i and the extent of hazardous materials in the area would need to be thoroughly studied prior to any such development.

**2.2.6 Conceptual Interim Park Plan**

The interim plan for the Town Center property includes passive park and general field uses (Figure 2-3). The property is currently graded for flat pads which step down toward the street. Therefore, mass-grading for the future Town Center must be completed. Once graded, much of the site will be grassed to allow for functional uses as a park area. Irrigation will also be installed and a gravel parking area will be provided. Landscaping, permanent irrigation and other improvements will be designed in coordination with the layout of future Town Center facilities. This will minimize tree relocation or removal.

This interim park would be used for passive recreation and for community gatherings such as farmers markets, community festivals, and craft fairs. The small gravel parking will provide parking for these large community events.



**Conceptual Interim Park Plan**

Aiea Town Center Master Plan

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Figure 2-3

**'AIEA TOWN CENTER MASTER PLAN**

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**2.3 PROPOSED USES FOR TOWN CENTER**

Several indoor uses are recommended for the Town Center. The configuration of the Town Center contains over 20,000 square feet of meeting and general function space. The design of the Town Center also includes large open areas and extensive covered lanais which can accommodate several of the proposed open air/lanai activities.

The master plan identified the following proposed uses for the Town Center:

Daycare Center	Outdoor Performance Area
Meeting Rooms (Classes, etc)	Outdoor Volleyball Court
Thrift Store	Gateball
Art Center	Picnic Areas with Barbeque Pits
Coffee Shop / Snack Shop	"Hanging out" (sitting, reading, etc.)
Open Market (farmers market / craft fair)	

**2.4 DEVELOPMENT SCHEDULE AND SUMMARY OF PROJECTED COSTS**

The recommended improvements are proposed to be completed in three phases: the interim park, Phase I, and Phase II. The total cost of the improvements are estimated to be slightly over \$6 million. Priorities for implementation phasing are summarized in Table 2-1.

The City and County of Honolulu ~~intends to purchase~~ Lots 6-14 from the Bank of Hawai'i, ~~the current owner for the development of the Town Center and senior facility.~~ Development of the site will be afforded to a nonprofit organization through a request for proposals process. ~~The City will issue an RFP for the senior facility development.~~ The RFP guidelines will be based on the design guidelines provided in the Master Plan.

The State of Hawai'i will be responsible for acquiring Lots 1-5, designing and building the library. However, the State of Hawai'i is not currently interested in building a library on the property. The City has moved to designate a symbol at the site on the Primary Urban Center Development Plan Public Facility (PF) Map.

There are no immediate plans to develop the greenbelt/residential area. A developer for the low-density housing development has not been identified and the City has no current plans to purchase the parcel. ~~The City has moved to designate a symbol at the site on the Primary Urban Center Development Plan Public Facility (PF) Map.~~

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**Table 2-1 'Aiea Town Center Phasing and Costs**

<b>Interim Park Plan – Within 1-2 years</b>		<b>Estimated Cost</b>
Demolition and Site Work ‡		\$250,000
Landscaping / Irrigation/Gravel Parking Area		\$206,000
	<b>Total Interim Park**</b>	<b>\$456,000</b>
<b>Phase I – Within 3-4 years</b>		<b>Estimated Cost</b>
Site Work‡		\$290,000
Parking and Drop-off Areas		\$750,000
Community Center		\$1,260,000
Meeting Rooms		\$960,000
Covered Walkways		\$190,000
Portion of Malls		\$455,000
Plaza		\$60,000
Landscaping		\$400,000
	<b>Total Phase I Projects</b>	<b>\$4,365,000</b>
<b>Phase II – Within 5-6 years</b>		<b>Estimated Cost</b>
Daycare Center		\$975,000
Covered Walk		\$45,000
Portions of Mall		\$85,000
Landscaping		\$110,000
	<b>Total Phase II Projects</b>	<b>\$1,215,000</b>
<b>Total Estimated Costs</b>		<b>\$6,036,000</b>

\* ~~There may be additional hazardous materials remediation costs during future development of the Town Center, Library, Assisted Living Facility, 'Aiea Stream Greenbelt and Residential Lots.~~

\*\* ~~There are several potential options for the remediation of lead soils, and the Bank and City are working on reaching a solution. Bank of Hawaii may pay for a portion of the interim park improvement costs (such as site work and landscaping).~~

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Section 3.0

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Description of the Environmental Setting,  
Potential Impacts, and Mitigative Measures

### **3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES**

The environmental setting, potential impacts and mitigative measures for the proposed 'Aiea Town Center Master Plan are addressed below.

#### **3.1 CLIMATE**

*Existing Conditions* – The average temperature range is between 21 and 28 degrees Celsius. The average rainfall is approximately 20 inches to 35 inches per year, with most rainfall occurring between December and April. The prevailing northeasterly tradewinds blow at an average of 9 knots and are generally constant throughout the year.

*Anticipated Impacts and Mitigative Measures* -The proposed project will have no effect on climatic conditions. Therefore, no mitigative measures are required.

#### **3.2 TOPOGRAPHY**

*Existing Conditions* – The topography at the project site is relatively level with topographic contours ranging between elevations of 100 and 120 (Figure 3-1). The average cross slope of the main mill area is less than 2%. The 'Aiea Stream flows through parcel 15, adjacent to the project site. The stream channel banks are approximately 7 to 15 feet high in vertical elevation above the channel invert.

*Anticipated Impacts and Mitigative Measures* - The proposed project will not substantially alter the overall existing topography of the project site. No substantial fill or excavation is being proposed for the project. Mitigative measures related to soils and grading are described in the following section.

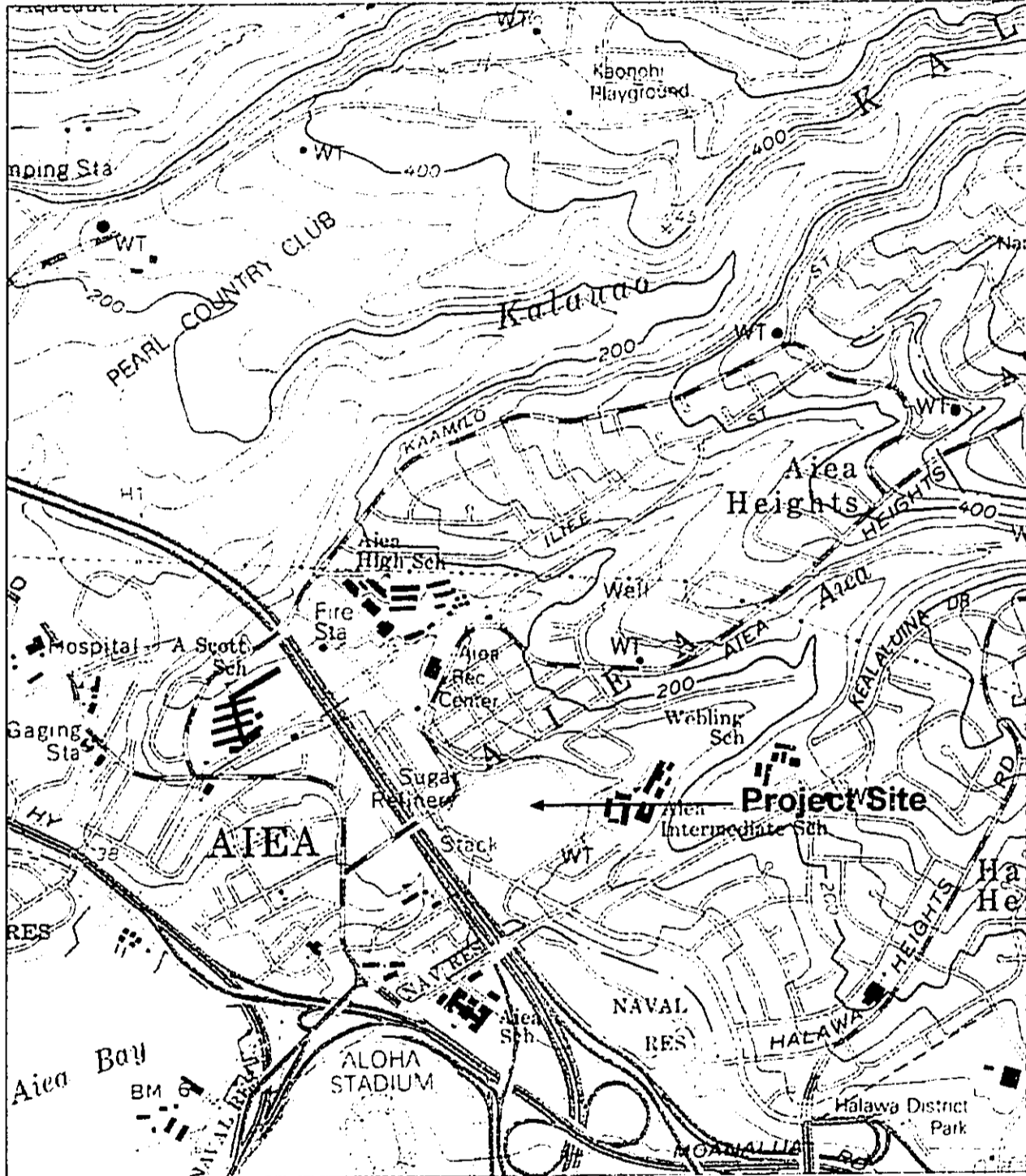
#### **3.3 SOILS AND GRADING**

*Existing Conditions* – The project site primary consists of Waipahu silty clays, 0 to 2 percent slope and Hanalei silty clays, 2 to 6 percent slope (Figure 3-2). Waipahu silty clays are well-drained soils which have been developed by old alluvium derived from basic igneous rock. The typical profile for the Waipahu silty clay is 12 inches grayish-brown silt followed by about 60 inches of dark brown silty clay that has a prismatic structure. The soil is slightly acidic in the surface layer and subsoil. Permeability is moderately slow. Runoff is slow or very slow, and the erosion hazard is none to slight. The available water capacity is about 1.4 inches per foot in the surface layer and about 1.6 inches per foot in the subsoil. Roots penetrate to a depth of 5 feet or more. The soil series is primarily used for sugar cane cultivation and home sites.



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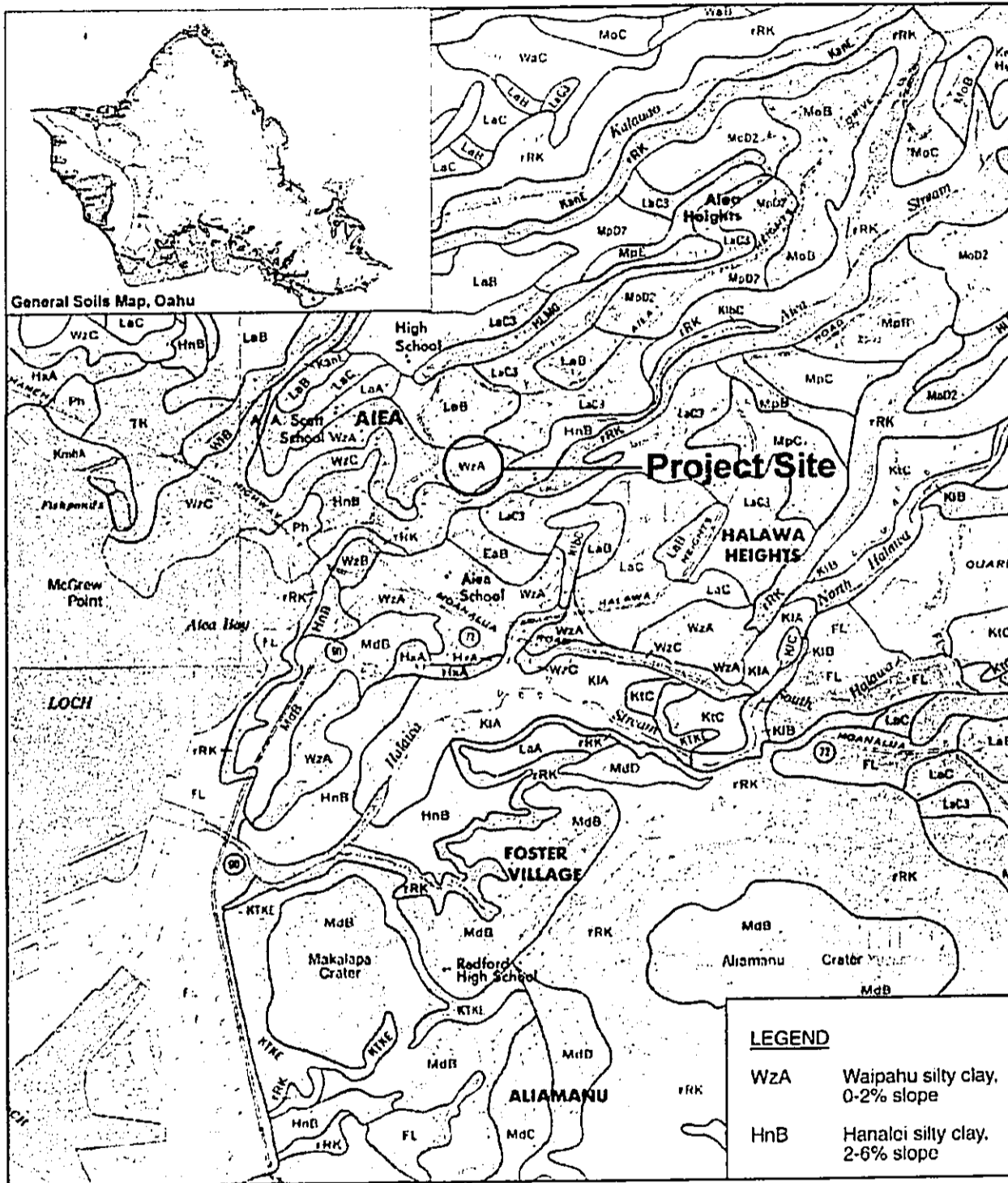
Source: USGS 1983

Figure 3-1  
Topography

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Source: USDA (1974)

Figure 3-2  
Soils

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Hanalei silty clay has also been developed from basic igneous rock. On this soil, runoff is slow and the erosion hazard is slight. The Hanalei silty clay was primarily used for agriculture.

***Anticipated Impacts and Mitigative Measures*** – All grading operations will be conducted in compliance with dust and erosion control requirements of the City and County of Honolulu Grading Ordinance. A Grading Permit will be obtained from the City and County of Honolulu prior to beginning construction. During Grading Permit review and approval, the City reviews the grading plans for the site and specific conditions may be attached at that time. The mitigation measures include but are not limited to the use of temporary ground covers, cut off ditches, and detention ponds.

Construction phase runoff will be minimized to protect 'Aiea Stream water quality using appropriate erosion controls and construction site management. The long-term landscape management plan will include proper management of fertilizers and pesticides. Site design will minimize runoff and collection through on-site dispersal and filtering methods. Increased surface runoff from newly paved parking and pedestrian areas will be minimized through these methods. The impact of construction activities on the 'Aiea Stream will be mitigated by practicing strict erosion control and dust control measures, particularly those specified in the following:

- City and County of Honolulu Grading Ordinance
- State of Hawai'i, Department of Health, Water Quality Standards, Chapter 37-A (1968)
- State of Hawai'i, Department of Health Total Maximum Daily Loads (TMDLs) currently under development
- USDA Soil Conservation Service, Erosion and Sediment Control Guide for Hawai'i (1968)

Extensive measures will be implemented to minimize soil erosion from the construction site. Best management practices such as sediment basins, filter fences, diversion swales, and biofiltration swales will be used to minimize the amount of soil transported to the 'Aiea Stream.

### 3.4 HAZARDOUS MATERIALS

***Existing Conditions*** – Hazardous materials have been discovered at the property. The Bank of Hawai'i acquired the property in May 2001, and Clayton Group Services prepared a Remedial Investigation and Interim Soil Report for the project area in October, 2001. The hazardous materials soils contamination, comprised mostly of lead, is believed to have occurred when the mill was in operation. The lead contamination is concentrated on TMK 9-9-78, Parcels 7-14. Prior to the City's purchase of Parcels 6-14, a remedial action was implemented for these Parcels in accordance with both the State and National Contingency Plans that involved the excavation and disposal of lead-impacted soils containing lead concentrations greater than 810 milligrams per kilogram (mg/kg). A total of 2,564 tons of lead impacted soil were excavated from the site and disposed in Waimanalo Gulch Landfill. ~~In addition, there are petroleum-impacted soils at the former fuel oil pump house, line, and receiving tank on Parcel 6.~~ There are also hazardous materials located on Parcel 15.

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*Anticipated Impacts and Mitigative Measures* – An approved remediation plan was implemented for the Town Center and Senior Center Parcel before the City purchased the property in December 2002.

An approved hazardous materials remediation plan will be implemented prior to development of the library and greenbelt/residential parcels. Known hazardous materials will be contained or remediated to a level acceptable for the future planned uses as the Town Center, Library, senior housing area, and residential development. ~~However, additional future development at the Town Center may require additional remediation measures. There are several potential options for the remediation of lead soils, and the Bank and City are working on reaching a solution.~~

### **3.5 SURFACE WATER AND DRAINAGE**

*Existing Conditions* – The 'Aiea Stream passes through the greenbelt/residential property, TMK Number 9-9-78 Parcel 15 (Figure 3-3). Its headwaters are in the Ko'olau Range and the stream discharges into Pearl Harbor. The 'Aiea Stream drainage basin is 1.05 square miles and can generate a 100-year peak discharge of 2,500 cfs based on the Flood Insurance Rate Map (FIRM) for this area. The City and County of Honolulu Drainage Standards predict a higher peak discharge of approximately 3,400 cfs passing through 'Aiea Stream.

Existing onsite storm drainage presently sheetflows from each of the industrial lots to the adjoining roadway. Various interceptor ditches, catchbasins and underground storm drain lines ranging in size from 18-inch to 30-inch, together with an outlet to 'Aiea Stream at the bridge structure were constructed for the 'Aiea Industrial Subdivision.

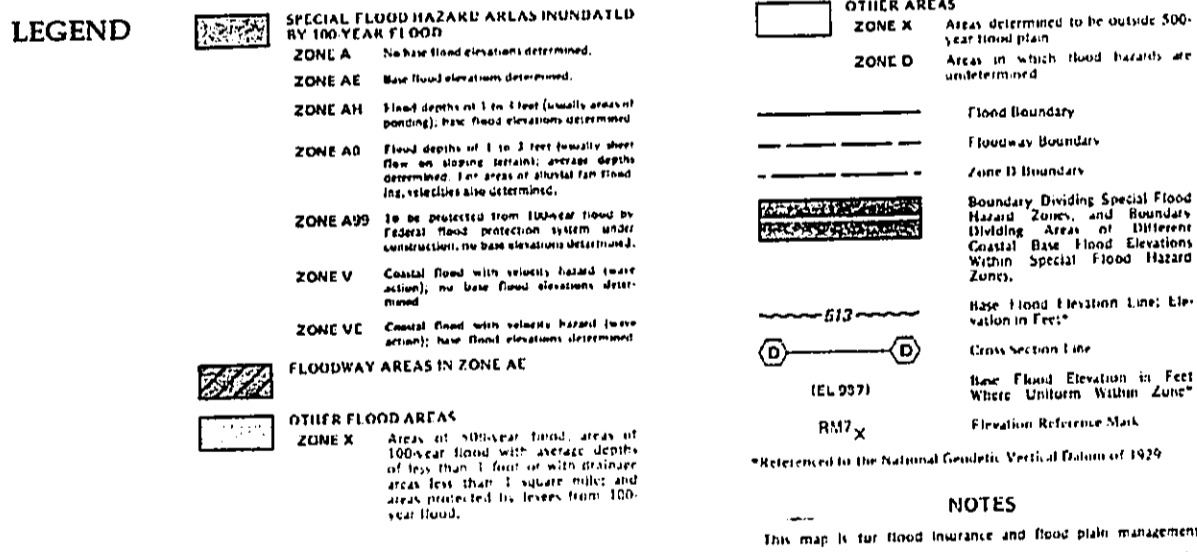
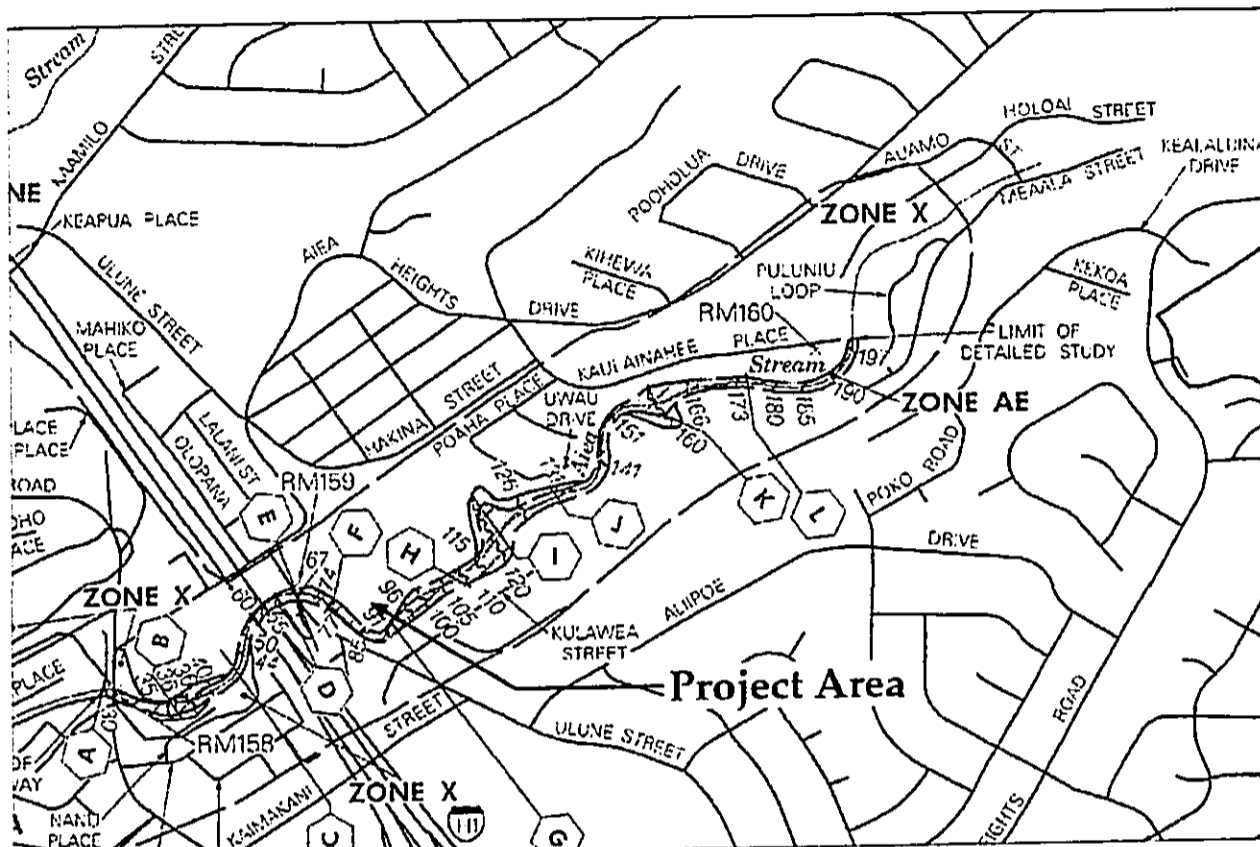
*Anticipated Impacts and Mitigative Measures* – Only the greenbelt is located within the 500-year flood plain. No construction is planned in this area.

Construction phase runoff will be minimized to protect 'Aiea Stream water quality using appropriate erosion controls and construction site management. The long-term landscape management plan will include proper management of fertilizers and pesticides. Onsite storm drainage for the proposed 'Aiea Town Center would consist of various onsite inlets and underground drainage lines which would connect to the existing roadway storm drainage system. The existing overall drainage pattern with discharge into 'Aiea Stream would remain the same and therefore should have no adverse impact on the storm drainage system as a result of the proposed 'Aiea Town Center.

Hazardous materials have already been removed from the Town Center and Senior Facility Parcels which has decreased the potential for hazardous pollutant loads from entering 'Aiea Stream. The planned future residential development of the 'Aiea Stream parcel would also include the remediation of hazardous materials and therefore a further reduction of the potential for hazardous pollutant loads from entering 'Aiea Stream.

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Source: FEMA (FIRM 15003C 0245E)

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Figure 3-3  
Flood Insurance Rate Map (FIRM 15003C 0245E)

### 3.6 FLORA AND FAUNA

*Existing Conditions* - The natural environment has been disrupted by sugar mill or refinery operations which were located at the project site for over a century. As a result, most of the flora and fauna is composed of introduced species.

The Environmental Impact Statement for the 'Aiea Sugar Mill Commercial Development (March 1997) included a flora and fauna survey that was conducted for the channel area of the 'Aiea Stream. The authors of this survey determined that the 'Aiea Stream has limited aquatic resource value within the former mill area.

*Anticipated Impacts and Mitigative Measures* - No rare, endangered, or threatened plant or animal species are presently known to exist on the project site. Improvements to the project site will provide new landscaped areas, trees, and plantings that may serve as habitat for area wildlife. No adverse impacts are anticipated, and no mitigative measures beyond construction period water quality protection are considered necessary.

### 3.7 ARCHAEOLOGICAL RESOURCES

*Existing Conditions* - On-site archeological sites that may have existed have been significantly altered or destroyed by the last 100 years of industrial activity in the project area. No archeological surface features are known to exist on the project site and no negative impacts are anticipated.

The Historic Preservation Division of the Department of Land and Natural Resources stated that the proposed developments will have "no effect" on significant historic sites.

*Anticipated Impacts and Mitigative Measures* - In the event that any previously unidentified sites or remains are encountered during site work and construction, work in the immediate area will cease. An archaeologist from the State Historic Preservation Division will be notified and work in the area will be suspended until further recommendations are made for appropriate treatment of archaeological and/or cultural materials.

### 3.8 CULTURAL ASSESSMENT

*Existing Conditions* - In traditional times, the moku, or island of O'ahu was divided up into six moku, interior land districts that were subdivided into tracts of lands, known as ahupua'a. These tracts of land were designed to include mountainous (ma uka) and coastal (ma kai) resources, which were further subdivided into various smaller land tracts for varying degrees of function and use. The project area lies in the traditional moku of 'Ewa, in the ahupua'a of 'Aiea (Figure 3-4), whose name is derived from a species of the Nightshade (*Nothocestrum longifolium*). This shrub was traditionally used for making 'aho (thatch purlin), canoe timber, and fire-making.

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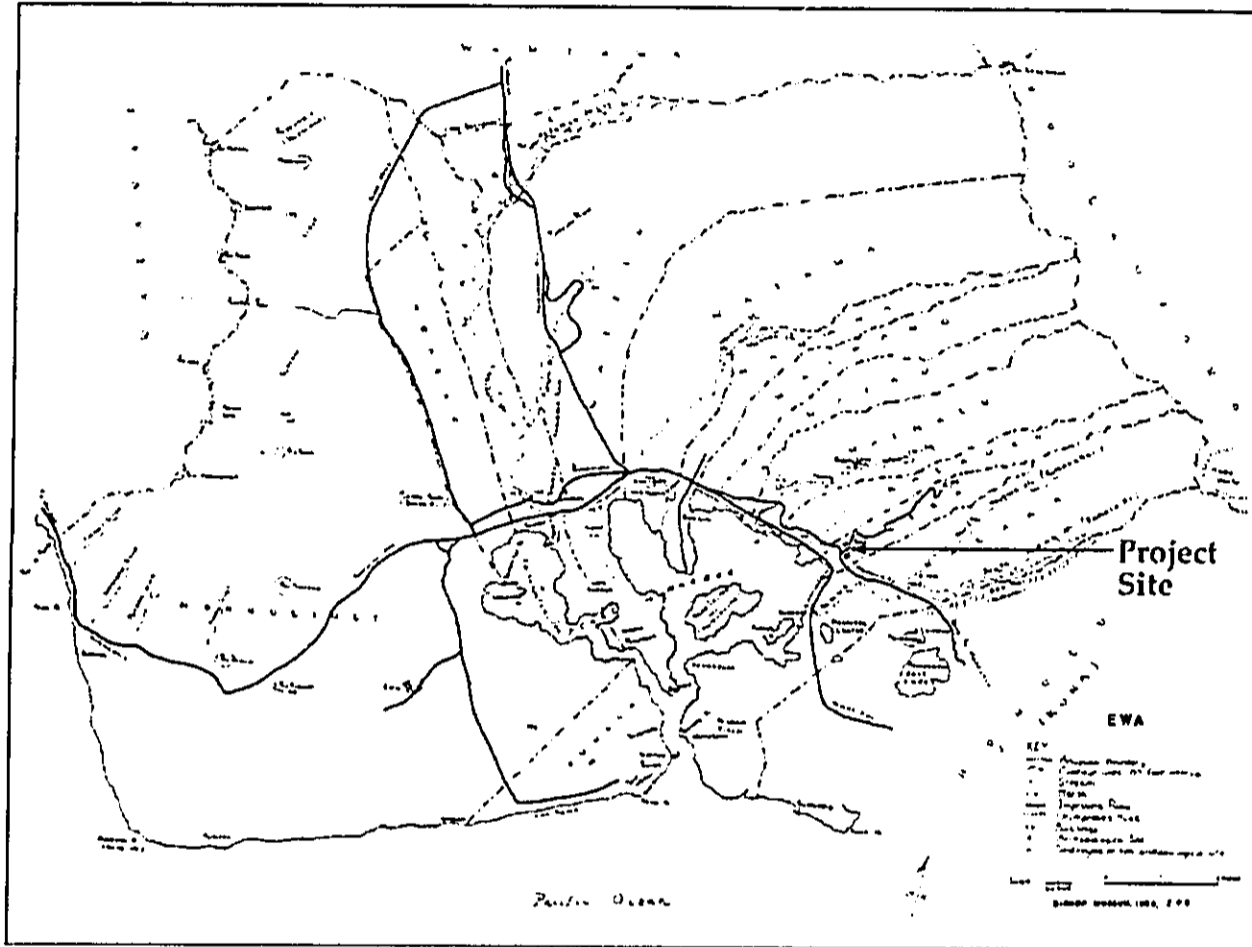


Figure 3-4  
Ahupua'a Boundary

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The coastal region of 'Aiea represents one segment of a continuous series of fishponds that were once situated in the coastal waters of Pu'uloa. According to various archaeological and historical reports, it is believed that these fishponds were utilized during the late Expansion (1100-1650 AD) through Protohistoric (1650-1795 AD) periods as part of an intense agricultural production system. Located near the former site of the 'Aiea railroad station, the Kahakupōhaku fishpond was a small pond of approximately three acres with a semicircular wall that had several mākaha (sluice gates) that supplemented a diverse stock of fishery resources.

The Keāiwa State Recreational Park is located in the upper mountainous regions of 'Aiea ahupua'a. Various plant species create the natural landscape of the park area, including eucalyptus, guava, Norfolk and Australian pine, hau (*Hibiscus tiliaceus*) and ohī'a lehua (*Metrosideros polymorpha*) trees. The park derives its name from a hō'ola-class (medicinal) heiau situated within the forest reserve.

As a classified historic property, Keāiwa heiau is currently on the National and State Register of Historic Places. In general, these types of heiau combined the features of a modern hospital, medical school, and religious center with associative auxiliary functional spaces such as a herbal garden or a recovery center that were located nearby but not necessarily part of the main structure. Within Polynesian cultures, these types of healing centers are unique in form and function to the Hawaiian Islands. To date, there are only three known hō'ola heiau in all of Hawai'i.

Keāiwa heiau is a small rectangular structure, 100 feet by 160 feet, comprised of one terrace with low surrounding walls forming its exterior boundary. Records indicate that this heiau was built sometime during the reign of Kakuhihewa, a noted ruling chief of O'ahu during the 16<sup>th</sup> century. Named after a noted kahuna lā'au lapa'au (healing arts specialist), this heiau was rededicated in 1951 with honored guests, representatives of modern medicine from the Pan-Pacific Surgical Congress taking part in ceremonies conducted by indigenous descendants of ruling chiefs. The heiau continues to be a community and educational resource.

Consultation with community leaders did not reveal any Hawaiian cultural sites within the project site (Appendix E). However, the project site is culturally significant because it is the location of the former 'Aiea Sugar Mill. The mill site is a symbol of the mill operations that prospered in the area and of the plantation way of life. The 'Aiea Sugar Mill began as the Halawa Plantation Company in 1898 and the company changed its name to the Honolulu Plantation Company a year later. The plantation originally consisted of 4,000 acres of sugar land extending from the coastal plain around Pearl Harbor up to the hillsides. The plantation operations prospered in the first half of the 20<sup>th</sup> Century, leading to the growth of Old 'Aiea Town which served as the commercial, social, cultural, and communication hub of the community.

At about the end of World War I, the Honolulu Plantation Company installed equipment to produce its own refined sugar. Plantation operations ended in 1947 after the company lost a significant portion of their prime sugar cane fields to military operations, roads, and commercial and housing developments. In 1947, California and Hawaiian Sugar Company (C & H) bought the refinery operations and continued operations there until 1994. The mill site was then sold to



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A & B Properties who built a smaller liquid sugar refinery behind the old mill in 1994 to meet Hawai'i's local demand. This facility was closed in 1996.

A clothing manufacturer, Crazy Shirts purchased the sugar mill property in 1994 with the intention of preserving the mill as a historic landmark and developing the site as its corporate headquarters. However, after determining that the renovation costs would be too expensive, Crazy Shirts razed the sugar mill in 1998 despite community opposition. In 1997, an Environmental Impact Statement was prepared on behalf Crazy Shirts to develop the project site as a shopping center. In 1999, the State of Hawai'i prepared an Environmental Assessment to construct a new regional library on the property fronting Kulawea Place. However, neither project was constructed. The former sugar mill property was put back on the market and the Bank of Hawai'i took over the property from Crazy Shirts in May 2001 with the intention of also selling the property.

*Anticipated Impacts And Mitigative Measures* – The cultural assessment revealed that the project site is very significant because of its prominent role as the site of the sugar mill. The proposed development will highlight this cultural resource and as result have a positive impact.

The concept of redeveloping the old sugar mill site as a community center grew out of the 'Aiea/Pearl City Community Vision Team ('Aiea Town Center FY 2001 CIP Project). Residents consider the old sugar mill site as an ideal location for the Town Center because of its central location and importance in the area's history. As a result of this community initiative, the City has been in negotiations with the Bank of Hawai'i to purchase the site and develop it as the 'Aiea Town Center.

The 'Aiea Town Center Master Plan has been developed through a community planning "charrette" or intensive working session. The design concept of the Town Center is based on the Old 'Aiea Town which consisted of plantation style wooden buildings with covered lanais. Bricks from the recently demolished 'Aiea Sugar Mill will be incorporated into the center court area of the Town Center. A historic plaque from the old sugar mill will also be incorporated into the design elements. To further highlight the area's sugar mill history, displays will be included through the Town Center exhibiting memorabilia from the mill and the Old Town.

### 3.9 SOCIO-ECONOMIC CHARACTERISTICS

*Existing Conditions* - According to the 2000 Census, 9,019 residents live in 'Aiea (see Figure 3-5 for boundaries). The average household size is 3.24 with 73.3 percent of the housing units are owner-occupied compared to 54.6 percent in the entire County.

Income information from the 2000 census is not yet available. According to the 1990 census, the median household income is \$45,565 compared to a median household income of \$40,581 for the entire island.

*Anticipated Impacts and Mitigative Measures* – The project will create short-term benefits as a result of design and construction employment. The project will create jobs for local construction

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personnel. Local material suppliers and retail businesses can also be expected to benefit through a multiplier effect from the increased construction activities. State General Excise Tax revenues will be generated by the project construction and related expenditures.

The principal socio-economic impact of the proposed project will be the creation of a community center which will provide community services such as daycare and meeting rooms. The construction of the library and senior housing facility are also important community services.

The socio-economic impacts will be positive for the local community, as well as the City and State, and no mitigative measures are considered necessary.

### 3.10 VISUAL RESOURCES

*Existing Conditions* - The project site is located within a developed urban residential neighborhood. Within the former sugar mill site, the most significant views are looking toward the 'Aiea Stream. The existing residential areas and other developed land uses surrounding the site restrict views of the Ko'olau Mountains and the ocean. The public views of the project site are available from 'Aiea Heights Drive, Ulune Street, Hakina Street, and Kulawea Street which all border the former sugar mill site. A site study of the project site is provided in Figure 3-6.

*Anticipated Impacts and Mitigative Measures* - The 'Aiea Town Center will be made up of three single story buildings totaling approximately 20,000 square feet. The library, senior housing facility, and residential development will be compatible with the Town Center and surrounding residential area. The single story buildings with lanais will be designed to reflect the architectural character of the plantation era.

The project's scale and design will not significantly impact area views. The project site is currently undeveloped and the improvements will enhance the appearance. Landscaping will also be used to improve the visual character of the project site.

### 3.11 LAND USE - DEVELOPMENT PATTERNS

*Existing Conditions* - The 'Aiea Sugar Mill was the economic center of the community during the first half of the 20<sup>th</sup> Century. During that time, 'Aiea Town Center served as the social and commercial hub of the community and residential areas developed nearby.

Today, the project site is located within a developed urban residential neighborhood. Figure 3-7 depicts the land ownership of the surrounding parcels. The administrative offices and laboratories of the Hawai'i Agricultural Research Center (HARC) occupy a portion of the former 'Aiea Sugar Mill site. 'Aiea Intermediate School is located to the east of the project site.

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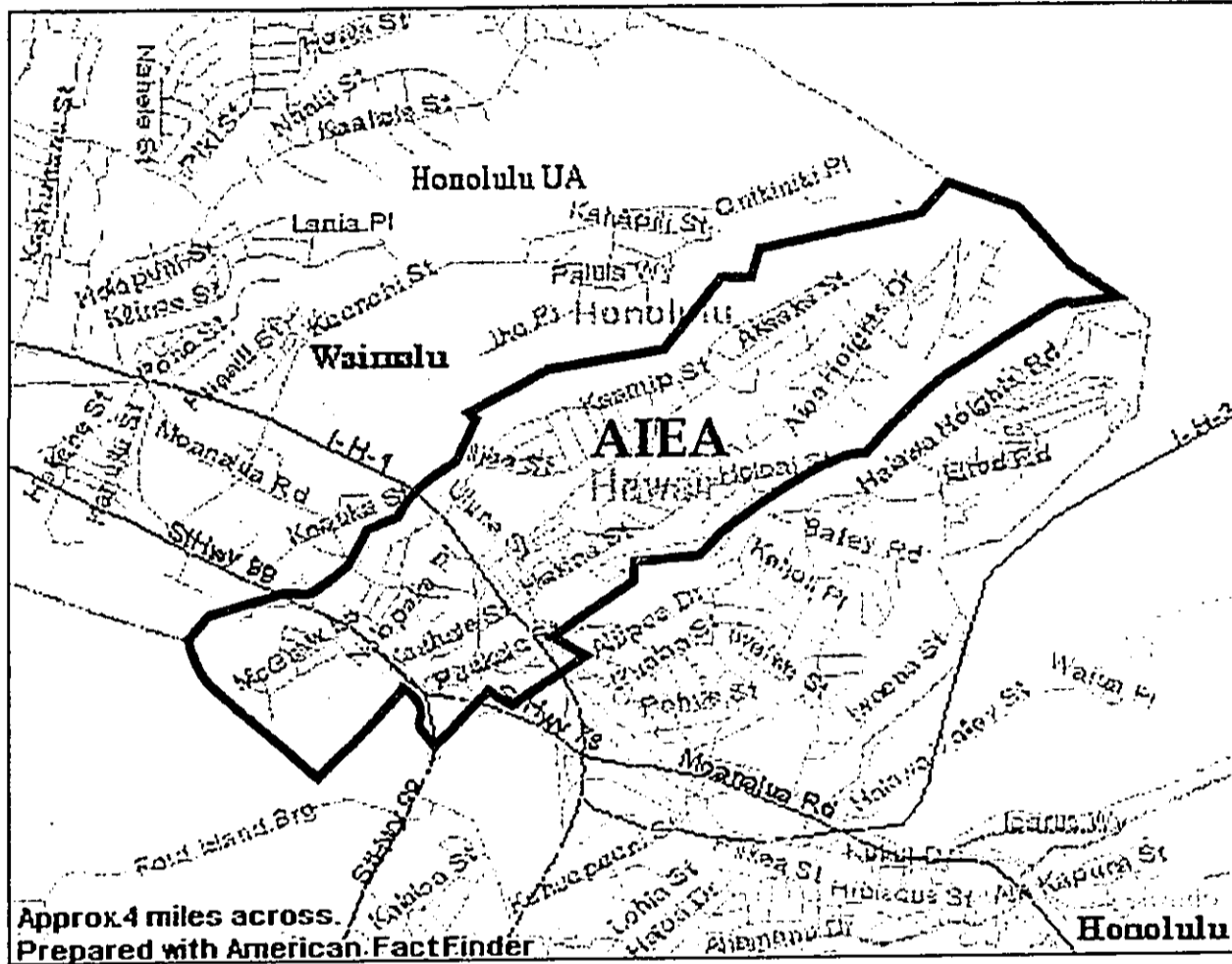
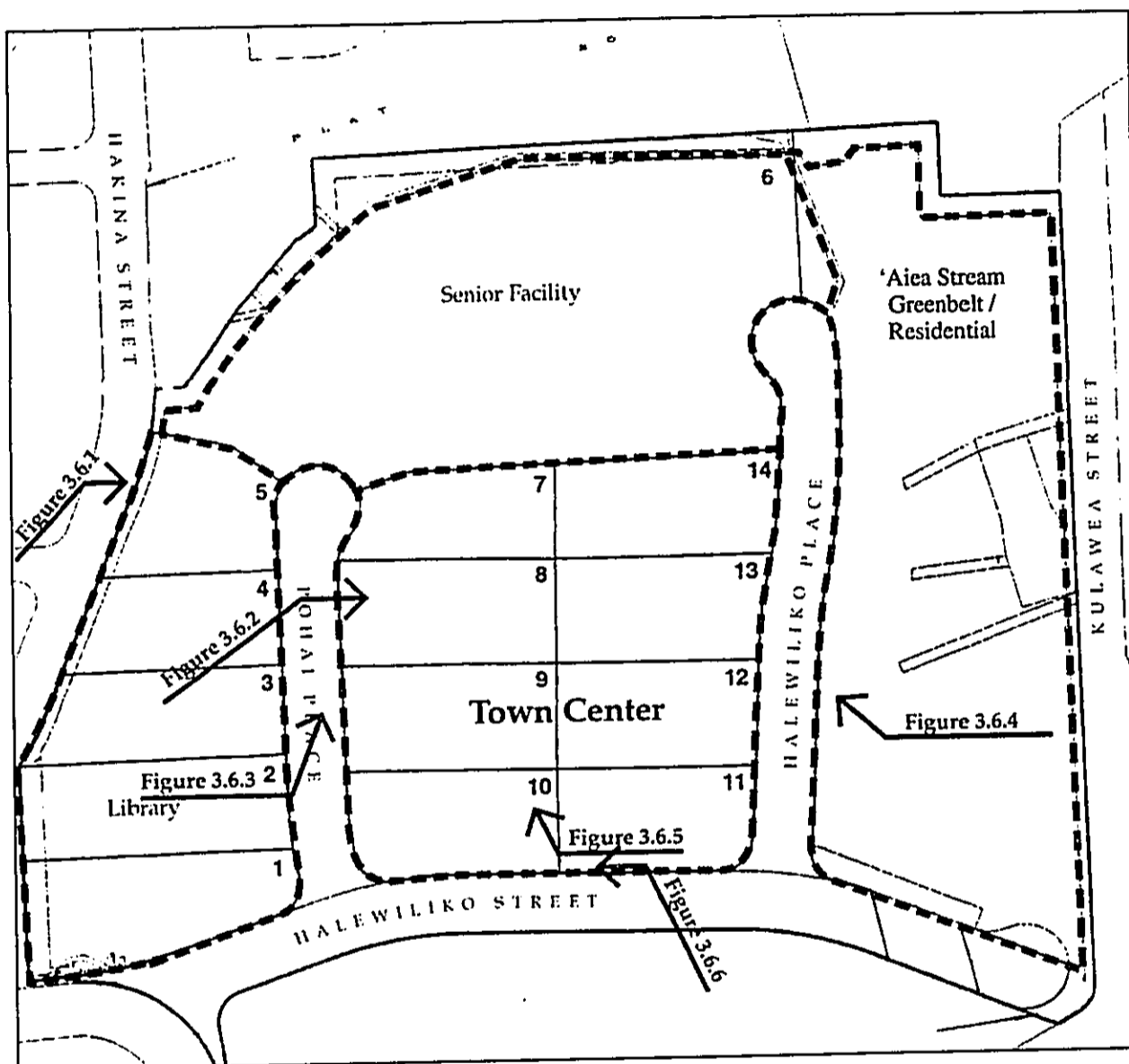


Figure 3-5  
'Aiea CDP

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Figure 3-6  
Site Photo Key Map

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Figure 3.6.1  
View of Project Site from Neighboring  
Residential Area North of Site



Figure 3.6.2  
Project Site Looking West from Pohai  
Place

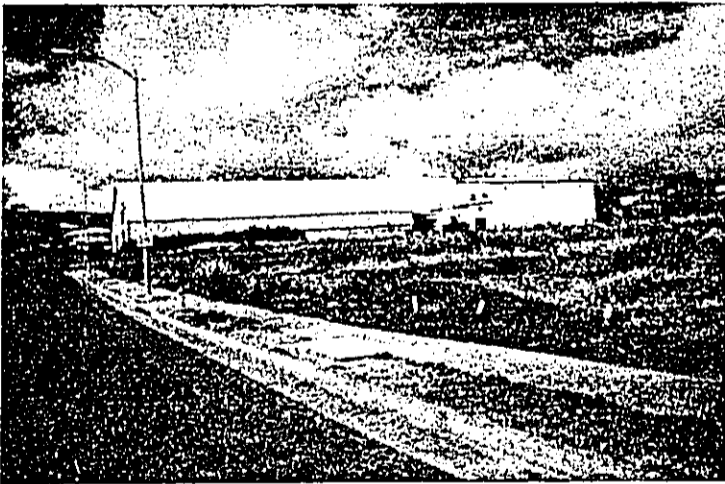


Figure 3.6.3  
View of Pohai Place and Remaining Mill  
Structure (Mill Structure has been  
demolished)

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Figure 3.6.4  
View of Project Site and Halewiliko  
Place from Adjacent Parcel



Figure 3.6.5  
View of Town Center Site

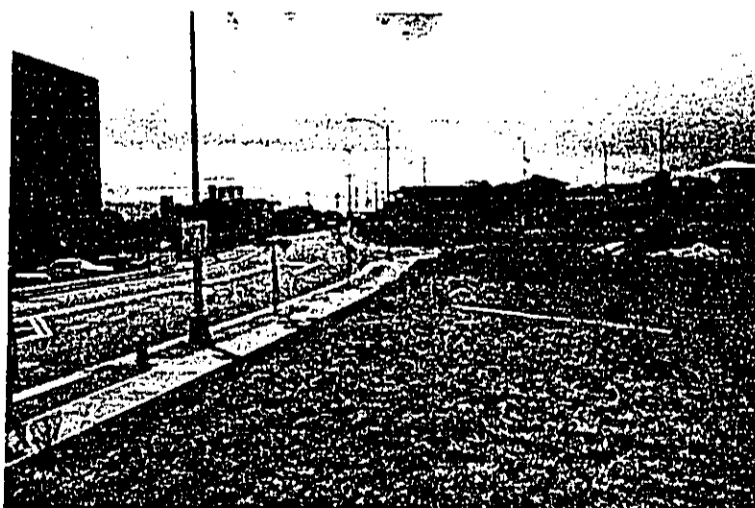
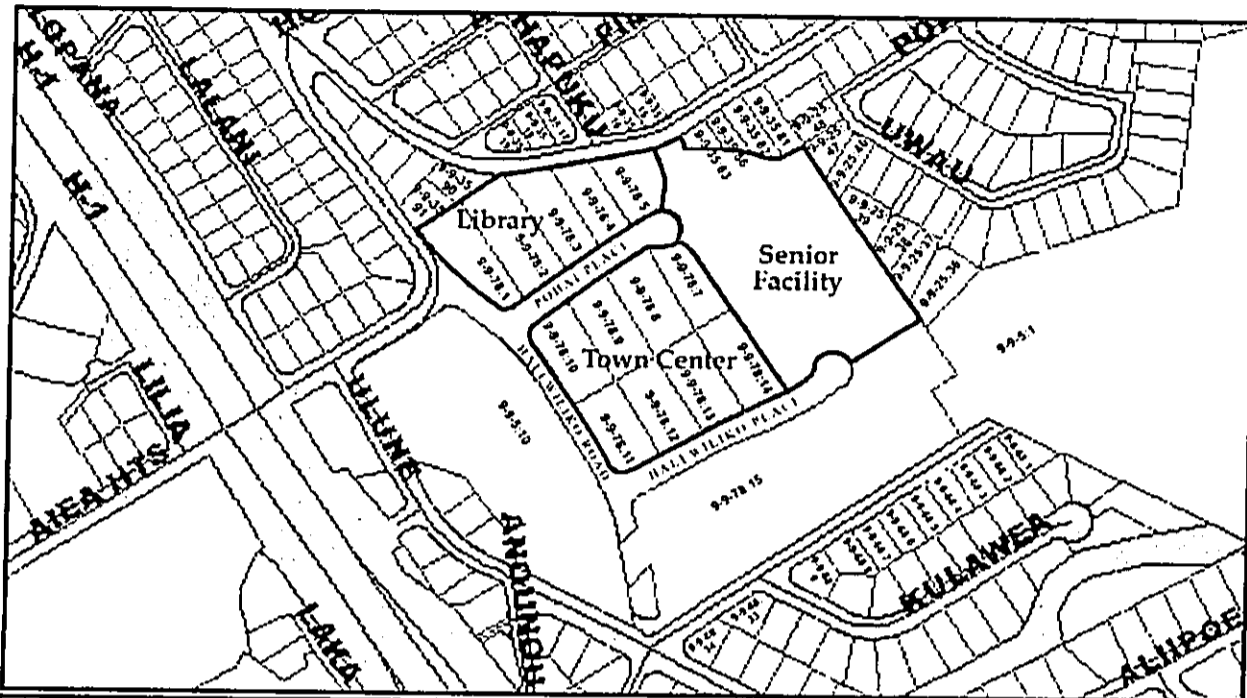


Figure 3.6.6  
View of Halewiliko Street, HARC  
Building, and Project Site

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TMK	Owner	Address of Property	Use
9-9-5:10	Bank of Hawaii	99-193 'Aiea Heights Dr	Industrial
9-9-35:91	Alejo Macadangdang	99-235 'Aiea Heights Dr	Household Dwelling
9-9-35:90	Gary Goo, et al	99-339 Hakina St	Household dwelling
9-9-35:19	Shigeru Migasato, et al	99-309 Pilikoa St.	Household dwelling
9-9-35:18	Bob Tokushige	99-315 Pilikoa St.	Household dwelling
9-9-35:17	Bob Tokushige	99-319 Pilikoa St.	Household dwelling
9-9-35:16	Kenichi Nakahara Trust	99-374 Hakina St	Household dwelling
9-9-35:15	Karl Kawachi	99-380 Hakina St	Household dwelling
9-9-35:83	Shogo Okihiro et al	99-385 Hakina St	Household Dwelling
9-9-35:86	Deane Kihara et al	99-389 Hakina St	Household Dwelling
9-9-35:82	Paul Murato trust	99-395 A Hakina St	Household Dwelling
9-9-35:81	David Kodama	99-399 A Hakina St	Household Dwelling
9-9-25:48	Nobuyuki Kawabata	99-411 Poahi Pl	Household Dwelling
9-9-25:47	Raymond Nomura Trust	99-303 Uwai Dr	Household Dwelling
9-9-25:46	Earl F Ohara	99-307 Uwai Dr	Household Dwelling
9-9-25:39	Loren and Laurie Chang	99-317 Uwau Rd A	Household Dwelling
9-9-25:38	Shiozaki Alle	99-325 A Uwau Dr	Household Dwelling
9-9-25:37	Ireneo Domingo	99-329 Uwau Dr	Household Dwelling
9-9-25:36	Nagata Mamura Trust	99-3317 A Uwau Dr	Household Dwelling
9-9-5:1	State of Hawai'i	99-600 Kulawea St	School
9-9-68:34	Stanley Hosaka	99-322 Ulune Street	Household Dwelling
9-9-68:33	Randy Racoma	99-5-515 Kulawea Place	Household Dwelling
9-9-68:9	Bob Sato	99-308 Kulawea St	Household Dwelling
9-9-68:8	Joyce Lee	99-541 Kulawea St	Household Dwelling
9-9-68:7	Cadiente Trust	99-549 Kulawea St	Household Dwelling
9-9-68:6	Raymond Arakaki	99-557 Kulawea St	Household Dwelling
9-9-68:5	Arcinnia Dugay	99-563 Kulawea St	Household Dwelling
9-9-68:4	William Kuromoto	99-569 Kulawea St	Household Dwelling
9-9-68:3	Kano Family Trust	99-575 Kulawea St	Household Dwelling
9-9-68:2	James Yamamoto	99-579 Kulawea St	Household Dwelling
9-9-68:1	Kenneth Horie	99-583 Kulawa St	Household Dwelling

Figure 3-7  
Current Land Ownership of Surrounding Properties

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Development patterns on O'ahu are set by State Land Use District designations and by the City and County of Honolulu General Plan, regional Development Plans or *Sustainable Communities Plans*, and zoning district designations. The principal function of these plans and regulations is to specify where land uses such as commercial, residential, industrial, agricultural, open and public areas are permitted. The existing land use designations are briefly summarized below.

State Land Use Designation - The project site is located in the State of Hawai'i Land Use Urban District (Figure 3-8).

City and County Development Plan - The City and County of Honolulu's Primary Urban Center Development Plan Land Use Map designates the subject property as Industrial (Figure 3-9). However, the City is currently processing an amendment to place a two Government Building symbols over the Library Parcel on the DP Public Facilities Map.

City and County Zoning - The subject property is designated "I-2 Intensive Industrial" on the City and County of Honolulu's Zoning Map (Figure 3-10).

Coastal Zone Management Program - The project site is located inland and is not included within the Special Management Area established by the City and County of Honolulu to administer the Coastal Zone Management (CZM) Program.

***Anticipated Impacts and Mitigative Measures -***

State Land Use Designation - There will be no change in the State Land Use Designation.

City and County Development Plan - The proposed Development Plan changes are summarized in Table 3.1. These changes are consistent with the principles of the Primary Urban Center Development Plan which includes providing adequate amounts of park for passive recreation.

City and County Zoning - The proposed zoning changes are also summarized in Table 3.1.

Parcel	Existing Development Plan Designation	Proposed Development Plan Designation	Existing Zoning	Proposed Zoning Change
Town Center	Industrial	Public Facility	I-2	B-1
Library	Industrial	Public Facility	I-2	B-1
Senior Housing	Industrial	Low Density Apartment	I-2	A-1
Residential/Greenbelt*	Industrial	Residential	I-2	A-1

\*Existing floodway area will preclude any development along the stream banks, and a designated landscape easement will preserve the greenbelt area as a recreational feature.

Table 3-1

**Existing and Proposed Development Plan Designations and Zoning**



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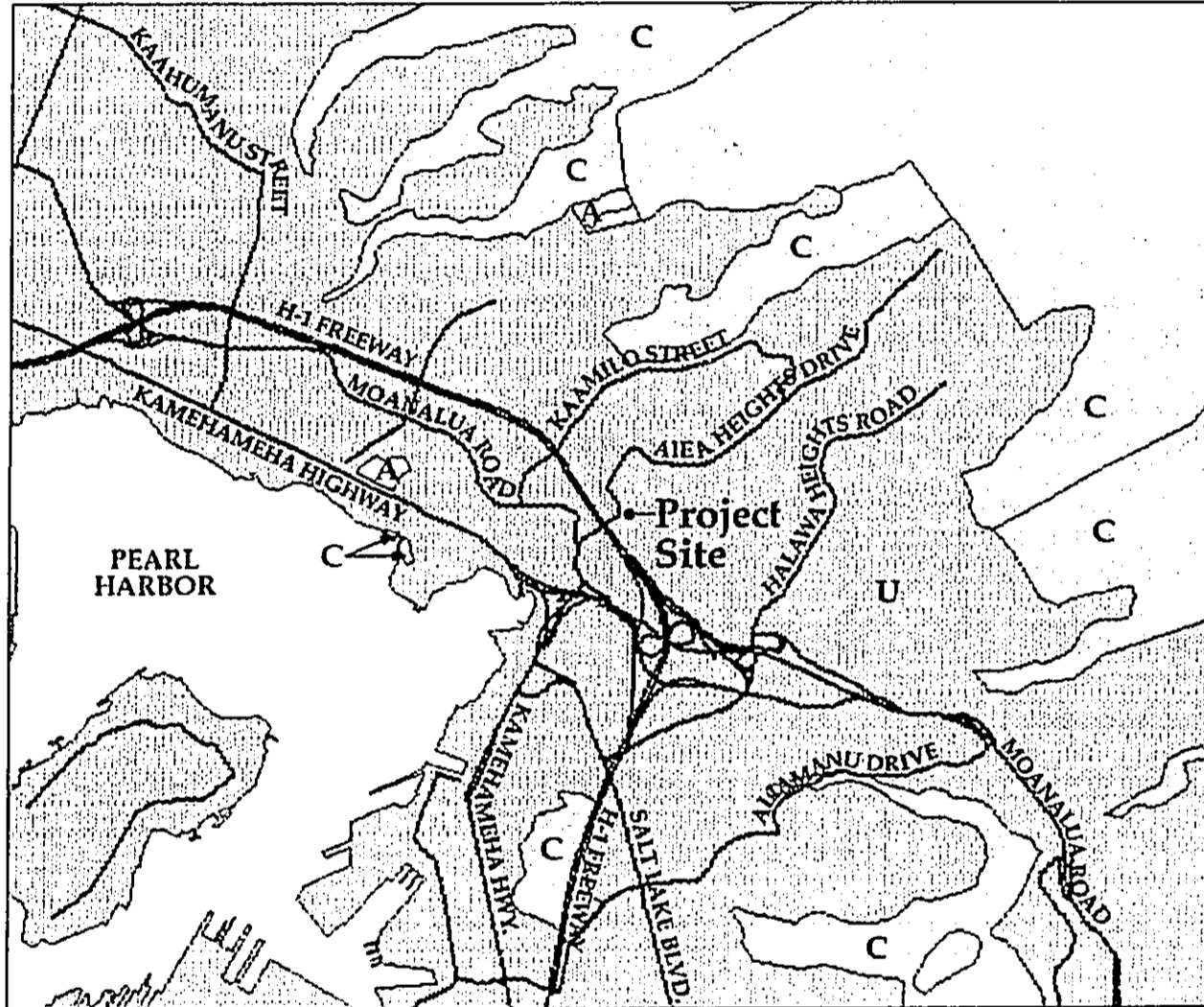
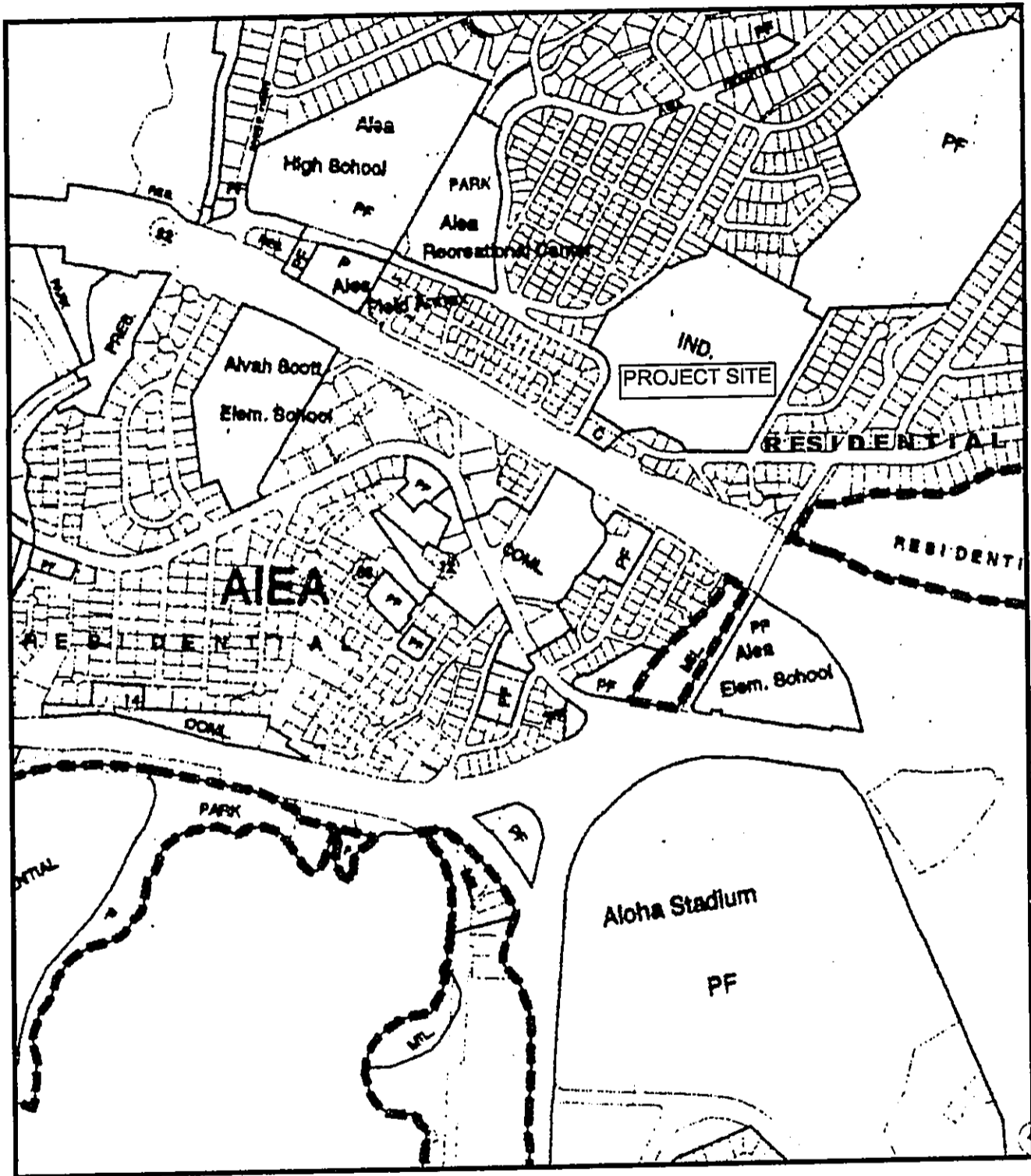


Figure 3-8  
State Land Use Designation: Urban

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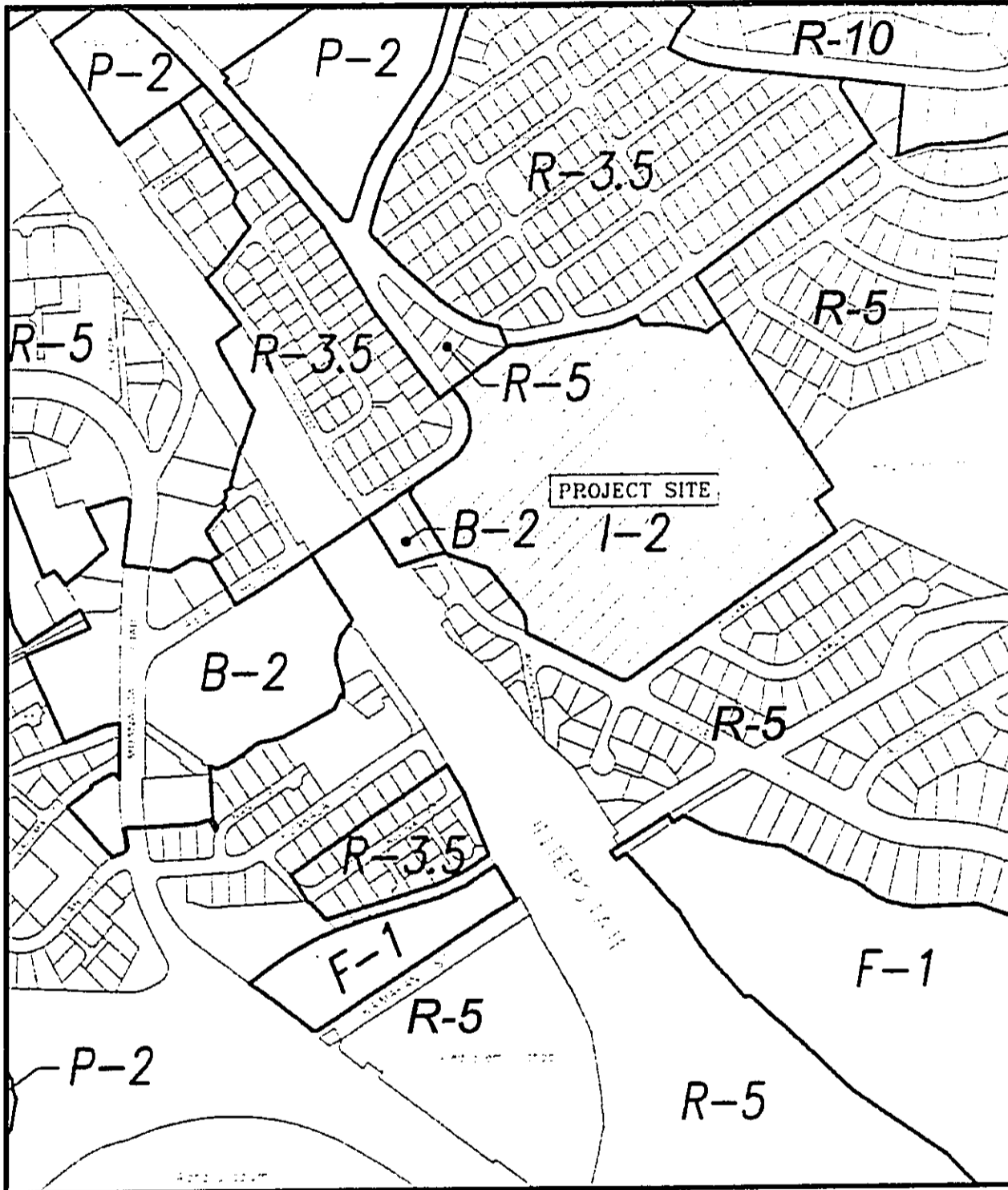
Source: City and County of Honolulu (1981)

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Figure 3-9  
Primary Urban Center Development Plan Land Use Map

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Figure 3-10  
City/County Zoning Districts

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### 3.12 UTILITIES

An assessment of existing conditions and potential impacts to utilities was completed by Gray Hong Bills Nojima and Associates, Inc and their full report is included in Appendix C.

#### *Existing Conditions:*

Water System – Water service to the project site is provided by the Board of Water Supply's 277' system. As part of the improvements for the 'Aiea Industrial Subdivision, new 12-inch waterlines were constructed in each of the new roadways connecting to the existing 12-inch waterline within 'Aiea Drive. The lines were designed to provide water service as well as fire protection for 4,000 gallons per minute. Individual water laterals were provided for each of the industrial lots.

The April 1999 'Aiea Public Library Site Feasibility Draft EA reported that, based on BWS standards and the number of water fixtures planned, the proposed library would require approximately 2,000 gallons per day (gpd) of water for domestic use and an estimated 15,000 to 25,000 gpd for landscape irrigation.

Sanitary Sewer System – As part of the 'Aiea Industrial Subdivision improvements, the sanitary sewer system from the adjacent 'Aiea Heights Subdivision to the sanitary sewer system located in the adjoining Hawaiian Agricultural Research Center (HARC) was replaced with a new 10-inch sewer line within the subdivisions roadways.

Sanitary sewer laterals were provided to each of the individual industrial lots connecting the City sewer system within the roadways.

The offsite municipal wastewater system was available to accommodate the industrial subdivision provided the total wastewater from the property did not exceed a peak flow of 150,000 gallons per day.

Electrical Power - HECO provides electrical service to the area via underground power lines.

#### *Anticipated Impacts and Mitigative Measures –*

Water System – The proposed 'Aiea Town Center would utilize the existing water system previously constructed. Based upon preliminary proposed floor area and capita, the average daily water demand has been estimated at approximately 90,000 gallons per day.

Normal conservation practices should be applied to the irrigation of landscaping. Drought tolerant landscaping will be considered to minimize irrigation requirements. There should be no adverse impact to the existing water system as a result of the proposed 'Aiea Town Center.

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Sanitary Sewer System – The proposed 'Aiea Town Center would utilize the existing sanitary sewer system previously constructed. Based upon preliminary proposed floor area and capita, the average wastewater flow has been estimated at approximately 47,000 gallons per day with a peak wastewater flow of approximately 250,000 gallons per day.

The extent of required off-site improvements will need to be determined. The proposed 'Aiea Town Center improvements would be phased until such time that required offsite improvements were completed.

### 3.13 PUBLIC SERVICES

*Existing Conditions* – Access to public services from the project site is excellent. Figure 3-11 shows the public facilities in the area. The State Department of Education operates four schools in 'Aiea including 'Aiea Intermediate School, Webling Elementary School, 'Aiea Intermediate School, and 'Aiea High School. The Town Center project site is very close to 'Aiea Intermediate School.

The Honolulu Police Department provides service for the project area from its Pearl City Station on Waimano Home Road. The 'Aiea and Waiiau engine companies provide fire protection for the project site and ladder service is available from Waiiau.

There are several parks and recreational facilities in the area. The parks and recreation centers located within 1.5 miles of the project site are Keaiwa Heiau State Recreation Area, Halawa District Park, 'Aiea Recreation Center, and Napuanani Park. The 'Aiea Public Library is also located near the project site and there are preliminary plans to relocate the library to another part of the former 'Aiea Sugar Mill site.

Pali Momi Medical Center, which is located on Moanalua Road, provides medical services in the area.

Regular City bus service (routes 11 and 74) is also available near the Town Center project site.

*Anticipated Impacts and Mitigative Measures* – Public facilities in the area will be improved by the addition of the Town Center and library. The senior housing facility will moderately increase the population in the area. However, many public services will be provided at the facility. The low-density residential development will also moderately increase population in the area. No mitigative measures are considered necessary.

### 3.14 ROADWAYS AND TRAFFIC

*Existing Conditions* –

*Roadways* - The schematic of the roadway network is shown in Figure 3-12.

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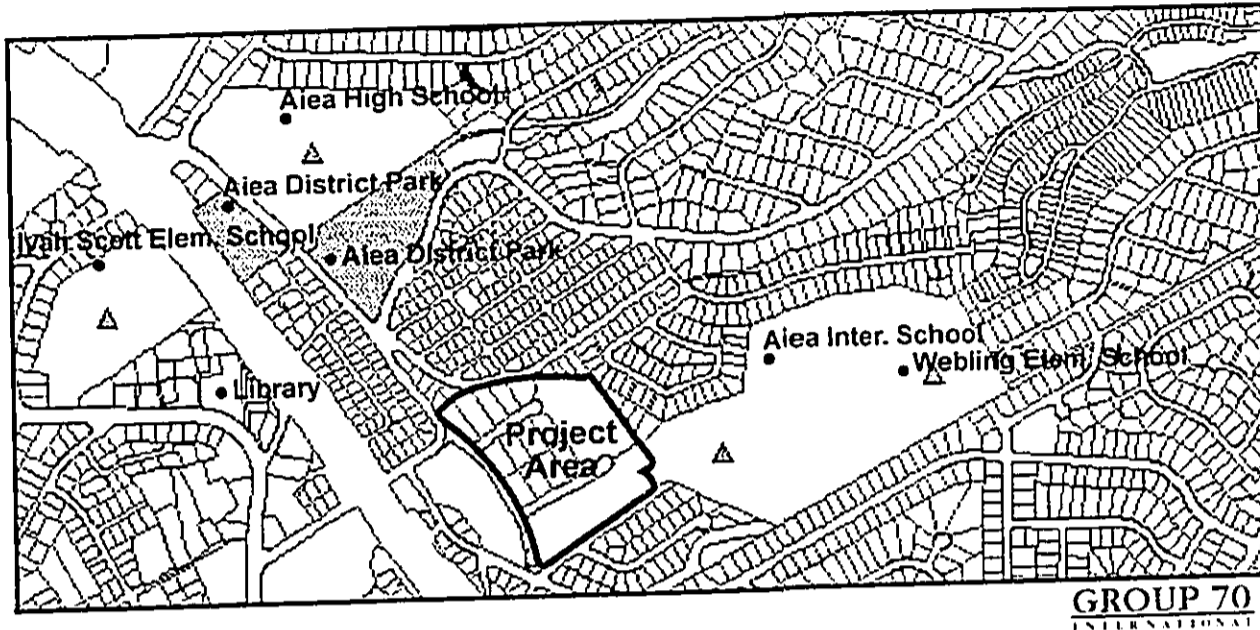


Figure 3-11

**Public Facilities Map**

Access to the project site is via Halewiliko Street. This road is an east-west street along the southern boundary of the project site. Halewiliko Street is a new roadway and runs between Kulawea Street on the east and 'Aiea Heights Drive on the west. The roadway is four lanes in width. No parking is allowed along either site. The posted speed limit is 25 miles per hour. At present, Halewiliko Street is closed to the general public. Traffic signals have been installed at the intersection of Halewiliko Street at 'Aiea Heights Drive but have not been turned on. The intersection operates as an unsignalized intersection.

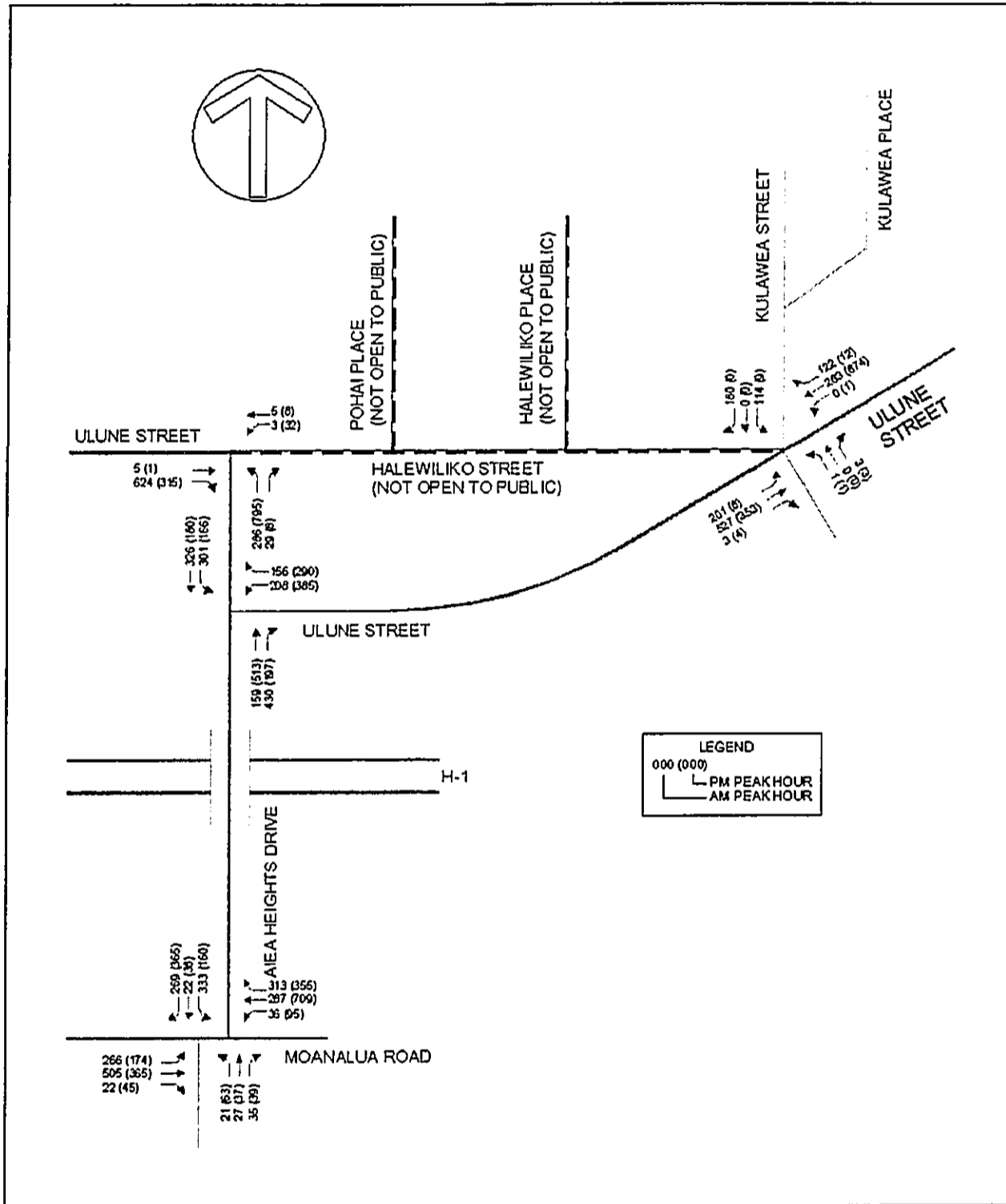
Ulune Street is also an east-west street. Ulune Street enters the study area from the east, terminates at an intersection with 'Aiea Heights Drive at a T-intersection. Ulune Street then continues again to the north opposite an intersection with Halewiliko Street. Generally, Ulune Street is two-lanes wide. The intersection at 'Aiea Heights Drive is signalized. The intersection of Ulune Street at 'Aiea Heights Drive/Halewiliko Street operates as an unsignalized intersection, even though traffic signals have been installed.

'Aiea Heights Drive is a four-lane, two-way roadway along the western portion of the study area. Development along its east side is retail and development along the west side is mixed commercial south of the H-1 Freeway and residential north of the H-1 Freeway. The posted speed limit is 25 miles per hour.

Moanalua Road is a four-lane, east-west arterial along the southern portion of the study area. Moanalua Road also serves as a major exit for westbound traffic from H-1 to 'Aiea. Adjacent development is commercial. There are separate turn lanes and signals at major intersections. The posted speed limit is 25 miles per hour.

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Source: Phillip Rowell and Associates (2002)

Figure 3-12  
 Existing (2001) Peak Hour Traffic Volumes

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*Existing Traffic Conditions* – Data on existing peak-hour traffic conditions at key intersections within and in the vicinity of the Park were gathered and analyzed for this project by Phillip Rowell and Associates (Figure 3-12). Their full report is provided in Appendix D. The conclusions of the level-of-service for existing conditions are:

- At the intersection of Ulune Street at Kulawea Street, the northbound and southbound approaches experience significant delays resulting in a poor level-of-service. However, the volume-to-capacity ratios are very low, indicating that the delay is the result of the traffic signal cycle length and not heavy traffic conditions. The southbound approach also experiences congestion as a result of school related traffic.

At the intersection of Ulune Street/Halewiliko Street at 'Aiea Heights Drive, westbound left turns experience long traffic delays. This will be corrected when the traffic signals are activated.

The intersection of Ulune Street at 'Aiea Heights Drive operates well overall. Westbound left turns experience long traffic delays during the afternoon peak hour. Average traffic delays or better are experienced at other nearby intersections during both morning and afternoon peak hours.

- Long traffic delays are experienced at the intersection of Moanalua Road at 'Aiea Heights Drive during the morning and very long delays are experienced in the afternoon. The southbound left turns experience extreme delays during both peak periods. Traffic using the left turn lanes is typically backed up resulting in the long delays. The lane is also congested as a result of traffic turning left into and out of the shopping center.

### *Anticipated Impacts and Mitigative Measures -*

Construction Period - Construction will take place within the boundaries of the project site. Construction activities will be limited to this area and adjacent roadway use will be scheduled to avoid unnecessary impacts on traffic. Contractors will be responsible for providing necessary traffic controls and precautions to maintain traffic safety on roadways fronting the project site and main residence.

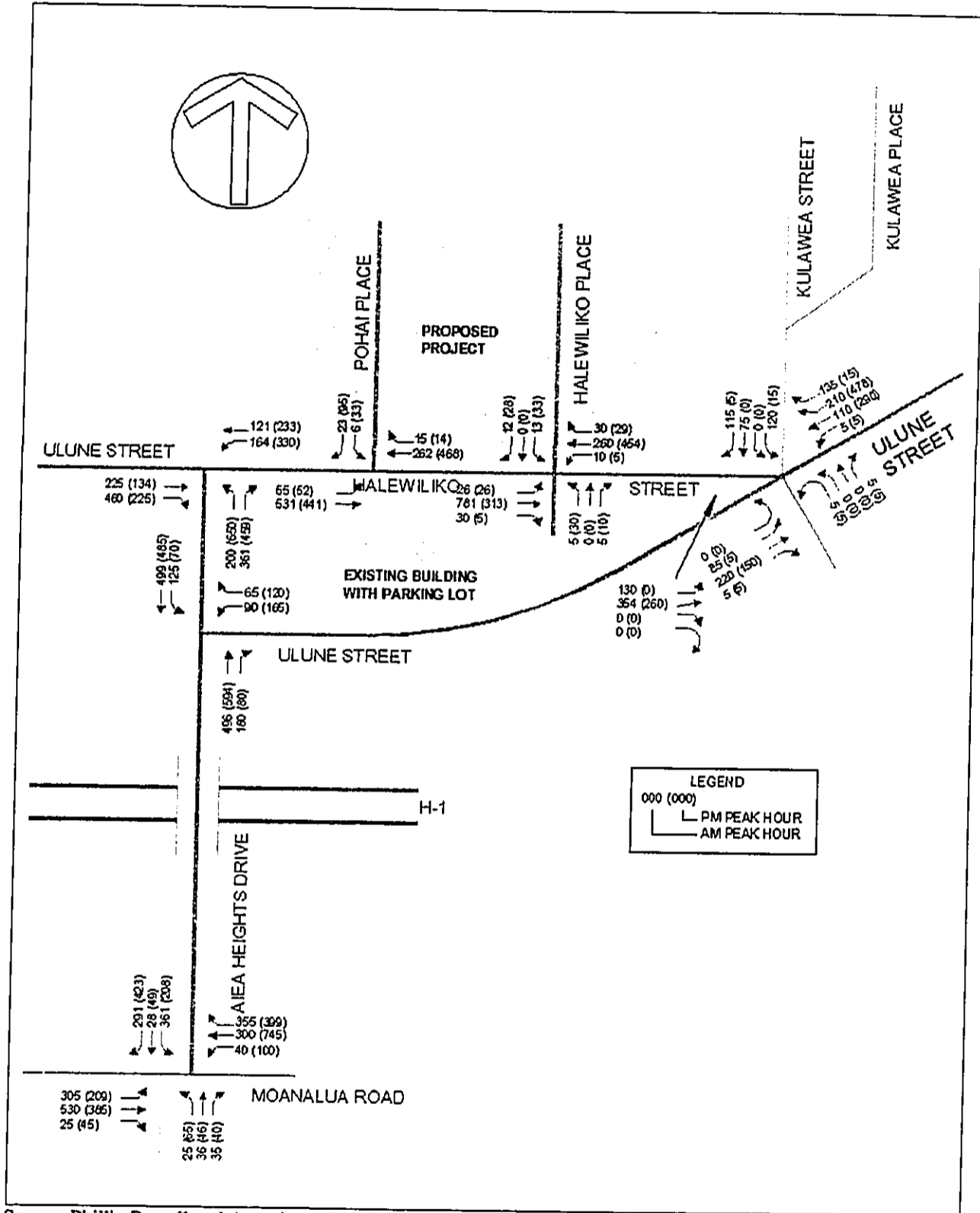
Future Traffic Flow – Since the project site is essentially vacant now, the planned improvements are expected to increase traffic in the area. The trip generation estimates for the total project were compiled in the traffic impact assessment study conducted by Phillip Rowell and Associates. The proposed Town Center will generate 10 trips during the morning peak hour and 310 trips during the afternoon peak hour.

Figure 3-13 illustrates year 2005 cumulative conditions with the proposed improvements. Traffic volumes were calculated assuming that the opening of Halewiliko Street and turning on the traffic signals. Ulune Street will be retained as a through street. The intersection of Ulune Street and Halewiliko Street at Kulawea Street will be a five-legged intersection.

Traffic at all the study intersections will be congested without or with the project. The intersection of Ulune Street/Halewiliko Street will operate at a level-of-service E and F during



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Source: Phillip Rowell and Associates (2002)

**Figure 3-13**  
**2005 Cumulative Peak Hour Traffic Volumes With Project**

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the morning peak hour, without and with the project. This is because the five-legged intersection requires a separate signal phase for each approach to provide safe traffic movements.

As community events become better defined, additional traffic and parking mitigation measures will be proposed. Overflow for event parking for larger events may require temporary parking on streets or agreements with neighboring establishments.

The location and design of the porte cochere for the proposed bus stop on Halewiliko Street will need to be addressed in greater detail with regard to use and access.

### 3.15 AIR QUALITY

*Existing Conditions* – Fugitive dust from human activities and emissions from vehicular traffic represent the only sources potentially impacting the air quality at the subject property. Ambient air quality is estimated to be good primarily due to the predominant northeast trade winds.

*Anticipated Impacts and Mitigative Measures* – The proposed project will have no long-term impact on air quality. There will be short-term impacts during the construction period in the form of exhaust from increased traffic and fugitive dust from construction activity.

A dust control management plan will be developed which identifies and addresses activities that have a potential to generate fugitive dust. The short-term effects on air quality during construction will be mitigated by compliance with provisions of Hawai'i Administrative Rules, Section 11-60.1-33 on Fugitive Dust. Potential control measures to reduce fugitive dust include:

- Planning the different phases of construction, focusing on minimizing the amount of dust generating materials and activities, centralizing on-site vehicular traffic routes, and locating dusty equipment in areas of the least impact;
- Providing an adequate water source at the site prior to the start up of construction activities;
- Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;
- Controlling of dust from shoulders and access roads;
- Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- Controlling of dust from debris being hauled away from the project site.

### 3.16 NOISE

*Existing Conditions* - The primary noise sources in the area of the project site are related to traffic and urban activities. The primary noise receptors in the area are residential areas and 'Aiea Intermediate School. The houses on Kulawea Street are approximately 175 yards away from the Town Center. The residential development will be located across the street from existing residences.

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Most of the uses at the Town Center will not generate extended unacceptable levels of noise. The performance area will be equipped with a sound system for performances. Outdoor fairs such as a craft fair or other community events, which draw large crowds, could also generate noise in the area.

*Anticipated Impacts and Mitigative Measures* – Construction work at the project site will involve activities that may generate an increase in noise levels. However, such exposures will be only a short-term condition, occurring during specified daylight hours.

Construction vehicles and activities must comply with State Department of Health Administrative Rules, Title 11, Chapter 42 (Vehicular Noise Control for O‘ahu) and Title 11, Chapter 46 (Community Noise Control for O‘ahu). The State of Hawai‘i Department of Health’s noise control regulation requires a permit for construction activities that emit noise in excess of 95 decibels. Mitigative measures to minimize construction noise will include the use of mufflers to suppress loud equipment and limitations on the hours of heavy equipment operation.

Project activities will comply with the Administrative Rules of the Department of Health, Chapter 11-39 on Air Conditioning and Ventilating, and Chapter 11-46 on Community Noise Control. Administrative controls will be implemented to control noise at the performance area and during outdoor festivals. These controls could include limiting performances and festivals to certain hours of the day.

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Section 4.0

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Alternatives to the Proposed Action

## **4.0 ALTERNATIVES TO THE PROPOSED ACTION**

This Draft Environmental Assessment evaluates three alternatives to the proposed project described in Section 2.0. The alternatives include:

- Passive Park
- Residential Development
- Commercial Development
- Industrial Development

### **4.1 ALTERNATIVE 1: PASSIVE PARK**

This alternative would develop the site as a passive park and would entail minor grading, irrigation, and a gravel parking area. This alternative is the same as the interim park plan being proposed.

The project would need to be rezoned as P-2 General Preservation. Environmental impacts would result from grading and traffic generated by park users. The park would enhance the visual resources in the area and it would provide outdoor recreational opportunities for the community.

In this alternative, construction of the 'Aiea Town Center would not occur and the anticipated new community services would be negated. Although this alternative would have limited adverse environmental impacts, the positive community benefits for 'Aiea associated with the Town Center would not be available.

### **4.2 ALTERNATIVE 2: RESIDENTIAL DEVELOPMENT**

A second alternative to the proposed project would be the development of the 'Aiea sugar mill site as a residential development without the proposed Town Center. The available buildable area is approximately 9.18 acres. Assuming R-5 zoning (5,000 square foot lots) and making allowances for roadways, a R-5 residential development would provide 6 to 7 lots per acre. Therefore, approximately 55 to 64 R-5 zoning lots could be created.

This use would be compatible with the surrounding residential neighborhood. However, this alternative would create several environmental impacts including an increase in noise (when compared to current conditions). The resulting increase in population would also increase usage of public facilities including schools. In addition, under this alternative, the community would not benefit from the community center and open space proposed under the 'Aiea Town Center alternative.

#### **4.3 ALTERNATIVE 3: COMMERCIAL DEVELOPMENT**

An EIS prepared by the property's previous owner, Crazy Shirts, proposed to develop the site as a shopping center with 145,000 square feet of commercial real estate space and approximately 770 parking stalls. This alternative would require that the area be rezoned B-1 Neighborhood Business.

The creation of commercial development on the 'Aiea Sugar Mill property would create additional traffic entering and exiting the shopping center development. In addition, the large commercial development would be in close proximity to the residential area and 'Aiea Intermediate School. While the shopping center could provide retail opportunities for the community, there are several other shopping malls nearby such as the Pearl Ridge Shopping Mall and the 'Aiea Shopping Center which provide retail services. In addition, under this alternative, the community would not benefit from the addition of a community center.

#### **4.4 ALTERNATIVE 4: INDUSTRIAL DEVELOPMENT**

The current zoning of the property is I-2 (Intensive Industrial). This alternative would allow for the development of the property without requiring a development plan amendment and/or change of zoning. The types of uses which could be developed under this category are defined in the City and County of Honolulu Land Use Ordinance and include a variety of uses including: automobile service stations, broadcasting stations, car washing facilities, catering establishments, storage facilities, bars, nightclubs, taverns, food manufacturing and processing, eating establishments, home improvement centers, manufacturing, processing and packaging, as well as steel storage facilities. This is just a partial identification of permitted uses under the I-2 zoning which may be viable for the project site.

Depending on the type of industrial development, the environmental impacts of uses in this alternative could be significant and would definitely be greater than the proposed community center use. For example, noise from traffic and industrial activities would be incompatible with the residential setting. Furthermore, industrial uses could negatively impact air quality and visual resources in the area.

Under the industrial development alternative, the community would benefit from the creation of jobs but would suffer from the potential adverse impacts and the lack of a community center.

#### **4.5 COMPARISON OF ALTERNATIVES WITH THE PROPOSED PROJECT**

To evaluate the alternatives it is necessary to consider the impacts each alternative would have on the physical environment (visual, traffic, noise and air quality, etc). In addition, it is important to weigh these effects against the benefits each alternative would bring to the surrounding community in terms of community services and jobs.

'AIEA TOWN CENTER MASTER PLAN

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Alternative 1, the passive park would have the least impact on the environment, noise levels, and view planes. However, while a passive park can be an important neighborhood amenity, a park is not needed in this case because the 'Aiea District Park is located close by.

The residential development would be compatible with the surrounding neighborhood but it would increase the population in the area as well as the use of public facilities. While housing is an important community resource, a housing shortage in 'Aiea has not been identified. The residential development alternative would generate less traffic and noise than the proposed Town Center.

While a shopping facility would create jobs and retail opportunities, it would generate substantial traffic, noise, and visual impacts. In addition, shopping areas including the Pearl Ridge Mall and the 'Aiea Shopping Mall already provide retail functions in the area.

The benefits of industrial development such as job creation would be outweighed by the negative consequences of industrial development within a residential neighborhood.

The 'Aiea Town Center alternative, on the other hand, would not have significant negative impacts on the physical environment and it does provide benefits for the community. The Town Center alternative would preserve a substantial amount of open space for public enjoyment and the architecture and design of the center would enhance the visual resources in the area. Other benefits would be derived from the services located at the center including the daycare center, library, meeting spaces, and senior housing.

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Section 5.0

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Required Permits and Approvals



## 5.0 REQUIRED PERMITS AND APPROVALS

This section discusses the necessary approvals and permits required for the proposed project from governmental agencies, boards or commissions or other similar groups having jurisdiction, and the status of each identified approval. Current zoning and land use designations for the project site are as follows:

State Land Use District:	Urban
Primary Urban Center Development Plan:	Industrial
County Zoning District:	I-2, Intensive Industrial

### 5.1 STATE LAND USE DESIGNATIONS AND CONTROLS

The State of Hawai‘i Land Use Law regulates the classification and uses of lands in the State to accommodate growth and development, and to retain the natural resources in the area. All State lands are classified by the State Land Use Commission, with consideration given to the General Plan of the County, as either Urban, Rural, Agricultural, or Conservation.

As discussed in Section 3.0, the subject property is located within the State Land Use Urban District (Figure 3-8). The surrounding area is also located within the Urban District. There are no Agricultural or Conservation Districts near the project site.

### 5.2 CITY AND COUNTY OF HONOLULU LAND USE DESIGNATIONS AND CONTROLS

#### 5.2.1 City and County General Plan

The General Plan for the City and County of Honolulu sets forth long-range objectives for the general welfare and prosperity of the people of O‘ahu and broad policies to attain those objectives. The development of the Town Center advocates the following goal and policies of the City and County of Honolulu General Plan:

- **Economic, Objective A:** This objective and related policies call for the promotion of employment opportunities that will enable all the people of O‘ahu to attain a decent standard of living.
- **Housing, Objective A:** This objective calls for the provision of decent housing for all the people of O‘ahu at prices they can afford.
- **Culture and Recreation, Objective D:** This objective calls for the provision of a wide range of recreational facilities and services for all O‘ahu residents. Relevant policies call for the development and maintenance of community based parks, and the provision of recreation programs that serve a broad spectrum of the population.

### 5.2.2 Primary Urban Center Development Plan

The City and County of Honolulu's Development Plans and *Sustainable Communities Plans* provide direction for a region's orderly future growth within the framework of the General Plan, and serve as guides for specific land use and development decisions.

At the regional level, the Draft Primary Urban Center Development Plan includes several policies and planning principles and guidelines relevant for the development of the 'Aiea Town Center. These include the following:

- *Designate the portion of the former 'Aiea Sugar Mill site between 'Aiea Stream and Kulawea Street for Residential use... The future subdivision could also be a site for community uses such as a new location for the 'Aiea Public Library. Designate the remainder of the mill site Industrial, with special standards to mitigate noise and visual impacts on the adjacent residential neighborhood.*
  - *Improve the street and intersection alignments of 'Aiea Heights Drive and Ulune Street in conjunction with the redevelopment and subdivision of the former 'Aiea Sugar Mill site.*
  - *Allow institutional and commercial uses within the Industrial-designated area.*
- *Develop and maintain parks and other outdoor public spaces in a manner that expands opportunities for both active and passive recreation. Increase and enhance recreational open space in the heart of Honolulu and Heart of Pearl Harbor by:*
  - *Building partnerships between public and private, non-profit organizations for coordinating facility planning and programming.*
- *Promote the joint development, use and maintenance of facilities under the jurisdiction of the Department of Parks and Recreation, the Department of Education and private, non-profit recreational organizations.*
- *Allow small-scale institutional uses such as primary schools, churches, community centers, and other meeting facilities in residential neighborhoods subject to site location and design criteria that mitigates adverse visual, noise, traffic, and parking impacts on the surrounding residential neighborhood.*

The subject property is designated Industrial on the City and County of Honolulu's Primary Urban Center Development Plan Land Use Map (Figure 3-9). However, the City is currently processing an amendment to place a two Government Building symbols over the library parcel on the DP Public Facilities Map. The predominant designation in the surrounding area is Residential. There are areas designated Institutional where schools and other public facilities area located. A small area across the H-1 Freeway is designated Commercial.

### 5.2.3 Zoning Districts

The purpose of the Land Use Ordinance for the City and County of Honolulu is to implement the General Plan and regional Development Plans' policies for growth and development through the regulation of the uses permitted within different zoning districts.

## 'AIEA TOWN CENTER MASTER PLAN

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The property is currently zoned Intensive Industrial I-2 (Figure 3-10). The predominant zoning in the surrounding area is R-3.5 and R-5. A small area is zoned B-2 and some nearby small parks are zoned P-2.

### 5.3 APPROVALS AND PERMITS REQUIRED

The following is a list of the approval and permits required for the development and construction of the 'Aiea Town Center.

- Completion of Chapter 343, HRS environmental review process.
- Primary Urban Center Development Plan Land Use Map Amendment – from City Council and Planning Commission
- Zone Change – City Department of Planning and Permitting, City Council

The project site is designated industrial on the Primary Urban Center Plan Land Use Map currently under review (Primary Urban Center Plan, July 1999). The recommended designation for the Town Center and library areas is Public Facilities. Low Density Apartment is recommended for the senior housing, Parks and Recreation for the greenbelt, and Residential for the residential area.

The entire site is currently zone I-2 Industrial. Based on recommendations from the Department of Planning and permitting, the recommended zoning for the Town Center and library areas is B-1. The senior housing facility recommended zoning is A-1. ~~The area around 'Aiea Stream should be designated P-2 to preserve its natural state. The remainder of the parcel could be designated A-1 and low density housing should be developed.~~ The Greenbelt/Residential Parcel should be designated A-1. The existing floodway area will preclude any development along the stream banks, and a designated landscape easement will preserve greenbelt area as a recreational feature.

Section 6.0

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Findings and Reasons Supporting  
Anticipated Determination

## 6.0 FINDINGS AND REASONS SUPPORTING ANTICIPATED DETERMINATION

### 6.1 ANTICIPATED DETERMINATION

In accordance with the National Environmental Policy Act, Chapter 343 HRS and the State Department of Health Administrative Rules, Section 11-200 (Environmental Impact Statement Rules), an applicant or agency must determine whether an action may have a significant impact on the environment. Section 11-200-12 of the EIS Rules establish "significant criteria" to be used as a basis in making the determination and whether significant environmental impacts will occur. According to Section 11-200-12, an action shall be determined to have a significant impact on the environment if it meets any one of the following criteria:

**(1) Involve an irrevocable loss or destruction of any natural or cultural resources.**

The proposed project does not involve any known destruction of existing natural or cultural resources. The project site has been disrupted by sugar mill or refinery operations which have been located at the site for over a century. As previously noted, no significant archaeological or historical sites are known to exist within the project site. If during the course of construction any cultural or archaeological remnants are unearthed, the Historic Preservation Division of the State Department of Land and Natural Resources will immediately be notified, and their treatment will be conducted in strict compliance with SHPD requirements.

**(2) Curtail the range of beneficial uses of the environment.**

The proposed development will improve the condition of the site and allow the area to be used to benefit the community. The development will not curtail the range of beneficial uses of the environment.

**(3) Conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

The proposed project is consistent with the environmental policies established in Chapter 344, Hawai'i Revised Statutes.

**(4) Substantially affects the economic or social welfare of the community or State.**

The 'Aiea Town Center will provide community amenities and services such as a daycare center and community meeting rooms. The community center will help foster a sense of community in 'Aiea which will benefit the community as a whole. The design of the center will emulate the design of old plantation towns drawing on the areas rich plantation history.

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Design and construction work will generate indirect and induced employment opportunities and multiplier effects, but not at a level that would generate any significant expansion. The short-term employment impacts will be beneficial to the local economy.

**(5) Substantially affects public health.**

The project does not substantially affect public health. However, community health screenings and other outreach could be conducted in the meeting rooms at the Town Center. In addition, the senior housing program would benefit public health. The long-term benefits associated with the project outweigh the temporary impacts to air and noise levels.

**(6) Involves substantial secondary impacts, such as population changes or effects on public facilities.**

The 'Aiea Town Center will be a public facility that will add much needed community services. The senior housing facility will increase the population in the area and up to twelve new housing lots are planned. However, most of the public services will be provided to the seniors at the housing facility or at the nearby Town Center. Therefore, the population increase will not substantially affect public facilities.

**(7) Involves a substantial degradation of environmental quality.**

As discussed above, the environment has been heavily impacted by previous development. The design of the town center as well the landscaping will improve the environmental quality of the area.

**(8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

The Master Plan discusses the future development of the entire 'Aiea Sugar Mill site. No other development is planned in the area.

**(9) Substantially affects a rare, threatened or endangered species, or its habitat.**

There are no endangered plant or animal species located within the project site.

**(10) Detrimentially affects air or water quality or ambient noise levels.**

Short-term effects on air, water quality or ambient noise levels during construction will be mitigated by compliance with City and County of Honolulu and State Department of Health rules which regulate construction-related activities.

After development, the impacts on air and water quality should be minimal. Noise levels will be increased moderately because of the addition of the community services. Noise levels may increase more when open air community events such as a craft fair are held at the site. However, the noise levels should not increase above appropriate levels.

**'AIEA TOWN CENTER MASTER PLAN**

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

The project site is not located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

- (12) Substantially affects scenic vistas and view-planes identified in county or state plans or studies.**

The project site is currently undeveloped and the improvements will enhance the appearance of the area. The architecture will be designed to reflect the architectural character of the plantation era. Landscaping will also be used to improve the visual character of the area.

- (13) Require substantial energy consumption.**

Construction of the project will not require substantial energy consumption relative to other similar projects. After the project is completed, energy will be conserved by using modern energy efficient appliances and fixtures.

**6.2 REASONS SUPPORTING THE ANTICIPATED DETERMINATION**

As stated above, there are no significant environmental impacts expected to result from the proposed action. A Finding of No Significant Impact (FONSI) is anticipated. The 'Aiea Town Center will provide great public benefits while resulting in minimal impacts on the surrounding environment.

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Section 7.0  
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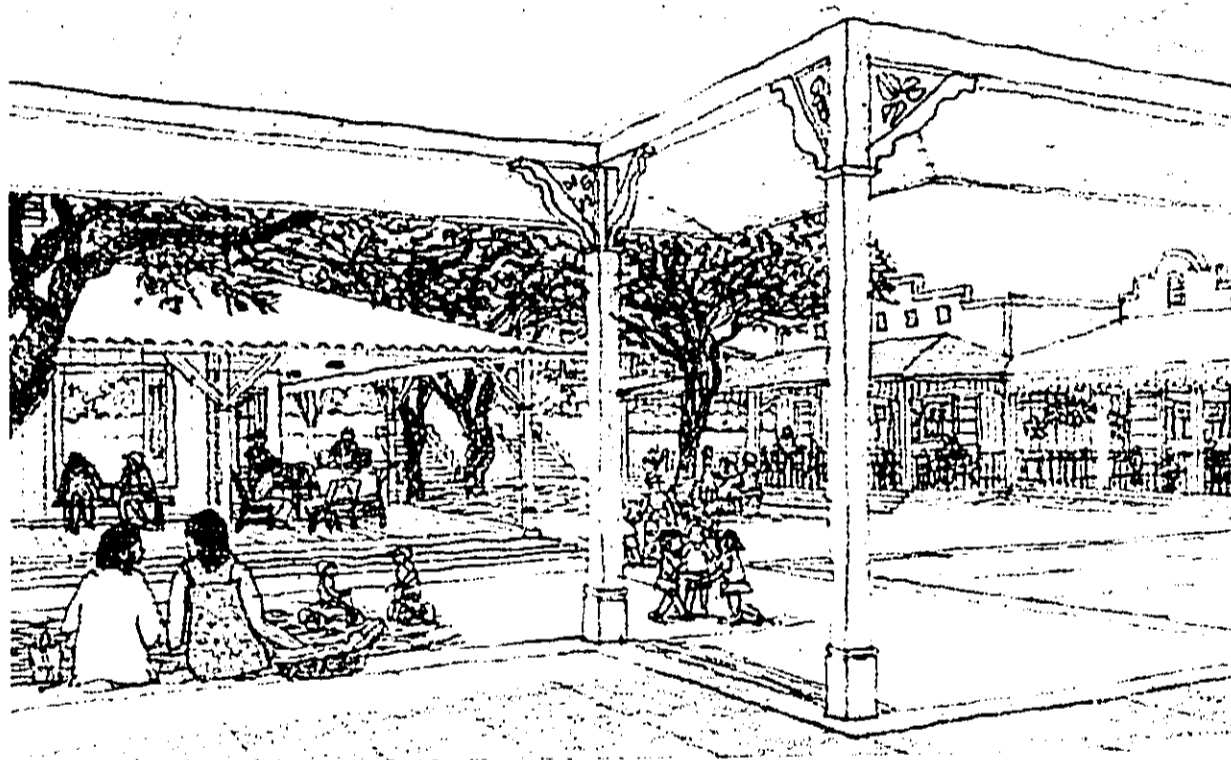
Appendix A

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'Aiea Town Center Master Plan

# 'Aiea Town Center Master Plan

'Aiea, Hawai'i



Department of Design and Construction  
City and County of Honolulu

January 2003

# 'Aiea Town Center Master Plan

'Aiea, Island of O'ahu, Hawai'i

Prepared For:

Department of Design and Construction  
City and County of Honolulu

Prepared By:

Group 70 International, Inc.  
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Honolulu, Hawaii 96813

January 2003

**'AIEA TOWN CENTER MASTER PLAN**

City and County of Honolulu

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Section 1.0

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Executive Summary



**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**

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## **1.0 EXECUTIVE SUMMARY**

The purpose of this Master Plan is to provide the 'Aiea Community and the City and County of Honolulu Department of Design and Construction with strategies and guidelines for the future development and use of the former 'Aiea sugar mill site.

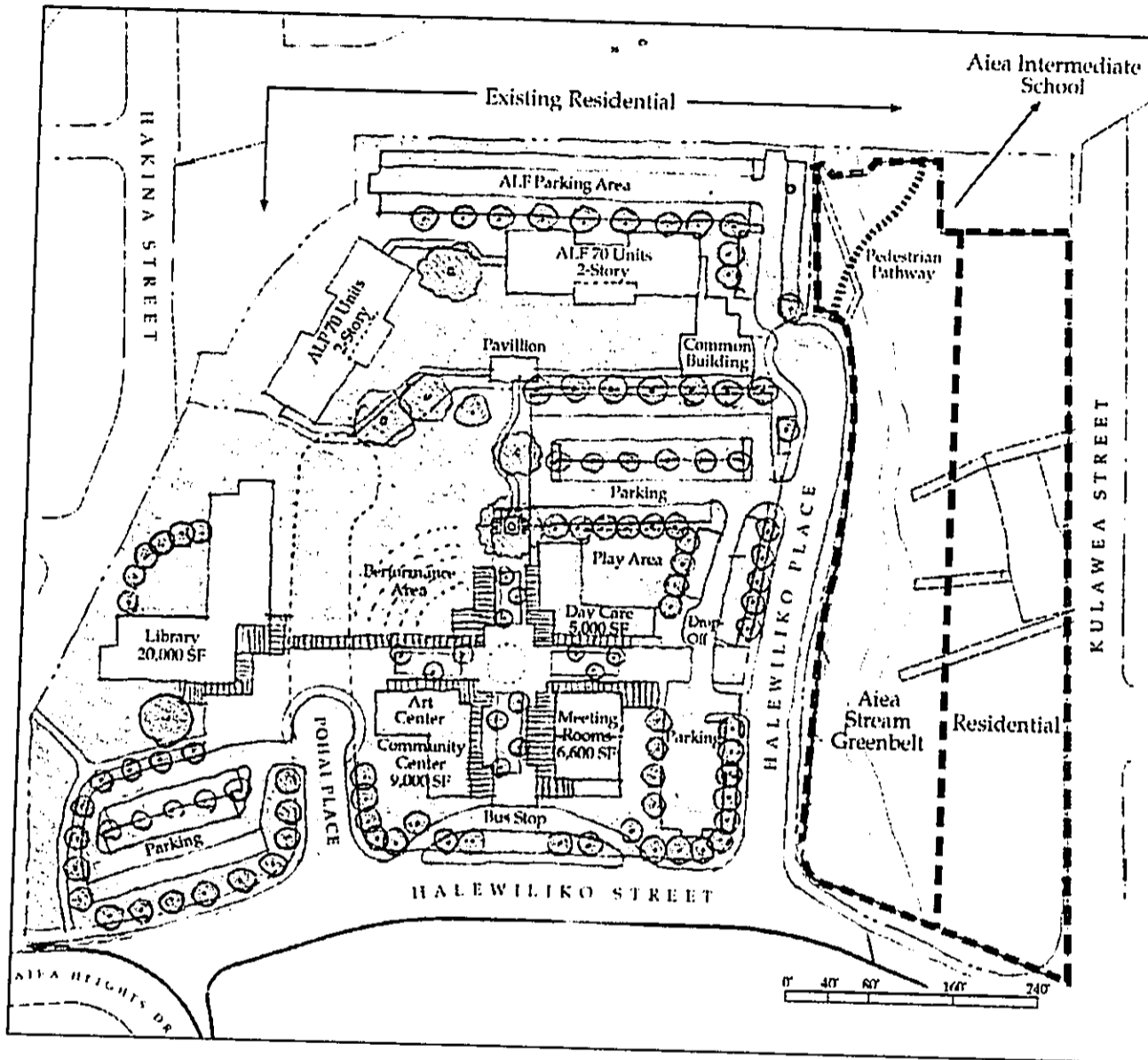
Five elements are proposed for this site: the 'Aiea Town Center, the library, a senior housing facility, a greenbelt, and a low-density residential development. This Master Plan focuses on the 'Aiea Town Center but general guidelines for the future development of the library, senior housing facility, greenbelt, and housing area are included. The conceptual plan is provided on the following page.

The 'Aiea Town Center will emulate the design and community feeling of old 'Aiea Town in order to create an informal setting where all generations can gather. Uses such as a daycare center and an outdoor performance area are planned to draw people to the Center and make the area the heart of community life. Community members will be able to participate in community events, attend classes and meetings, or simply hang out with friends and family. These uses will have a synergistic relationship with the proposed library and senior facility as well as the neighboring residential area and school. The following uses are proposed:

- Daycare center
- Rooms for community meetings and classes
- Thrift store
- Art center
- Coffee shop/snack shop
- Open market such as farmer's market or craft fair
- Outdoor performance area
- Outdoor volleyball court
- Gate ball
- Picnic areas with barbeque pits
- "Hanging out" including sitting, reading, talking story

This project could be developed for an estimated 6 million dollars. In the interim, the area will developed as a passive park.

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**



**Figure 1-1**  
 'Aiea Town Center Design Scheme

**GROUP 70**  
 ARCHITECTS

Section 2.0  

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Introduction

## **2.0 INTRODUCTION**

### **2.1 PURPOSE AND SCOPE**

The purpose of this Master Plan is to provide the 'Aiea Community and the City and County of Honolulu Department of Design and Construction with strategies and guidelines for the future development of the 'Aiea Town Center.

The Plan is to serve as a guide for funding decisions with respect to future capital improvements and operation and maintenance budgets. Specific improvements described in the Plan are intended to indicate a recommended course of action for the creation of the Town Center and interim park. Detailed design plans for individual project elements will be developed over time.

### **2.2 PLANNING PROCESS**

This Master Plan was developed through a community planning "charrette" or intensive working session involving a five level planning process. Two sessions were held that involved the extensive participation of community members as well as the City's design team.

The charrette process established a definition of the overall desired town center character and moved through progressively greater levels of detail to reach relatively specific development guidelines for achieving that character within the different parts of the Town Center. A five-step planning process was followed in the charrette, which is generally described as follows:

- |                        |  |
|------------------------|--|
| <b>Lifestyle</b>       | Identifies the natural setting and community/cultural context of the project area. The creative goals of the project are considered, addressing the activities, requirements, and expectations of the anticipated users. |
| <b>Major Themes</b>    | These are the principle themes that support the lifestyle. Major themes should be timeless and substantive.  |
| <b>Configuration</b>   | Addresses the overall physical configuration of the project and how the individual parts will be arranged.   |
| <b>Minor Themes</b>    | These are sub-themes which give the project richness, and which may change as the project matures.   |
| <b>Signature Items</b> | These are the key elements that make a project memorable, being one or two items that instantly remind people of the project, and create in them a sense of nostalgia.   |

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Section 3.0  
Planning Framework

**'AIEA TOWN CENTER MASTER PLAN**  
City and County of Honolulu

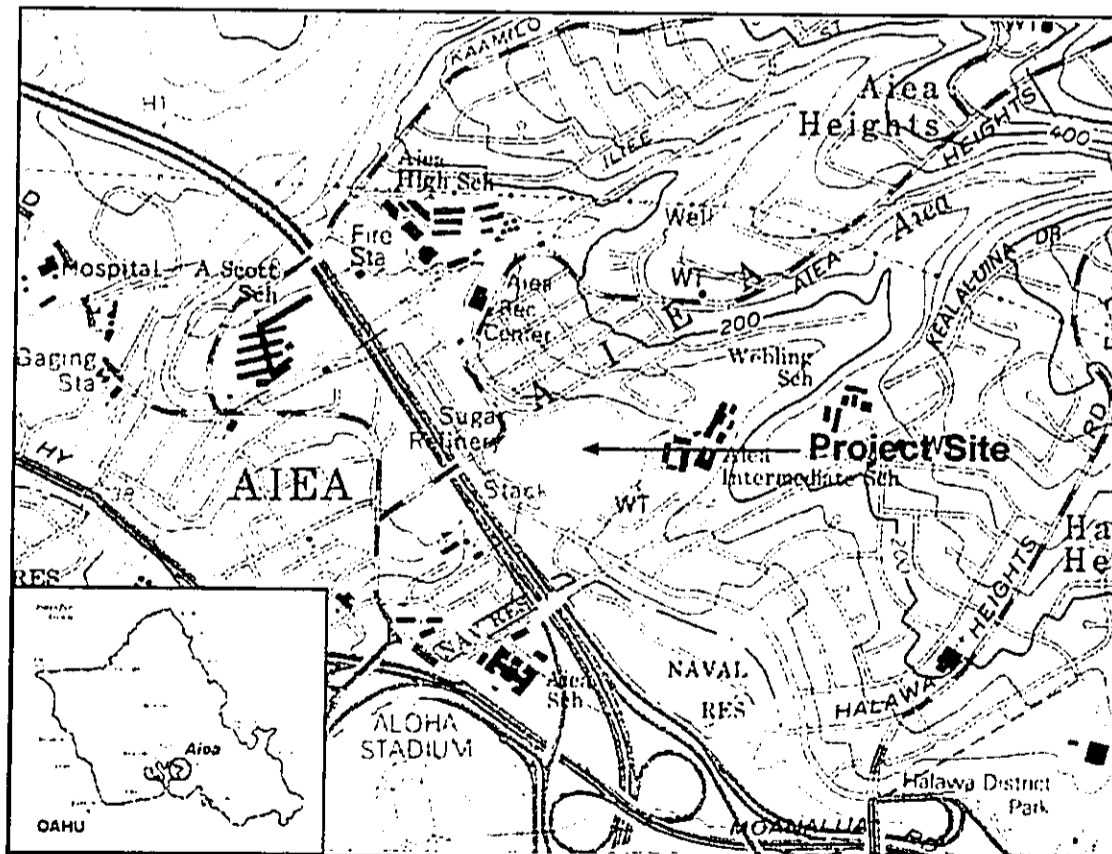
### 3.0 PLANNING FRAMEWORK

#### 3.1 LOCATION

The 'Aiea Town Center project site is located approximately 7 miles from Honolulu in 'Aiea (Figure 3-1). The Town Center site, located on TMK 9-9-78, Parcels 7 through 14, consists of 3.43 acres (Figure 3-2). The senior facility project area is located on TMK 9-9-78: Parcel 6 and is 3.45 acres large. The library project area, TMK 9-9-78, Parcels 1-5, is 2.3 acres in size.

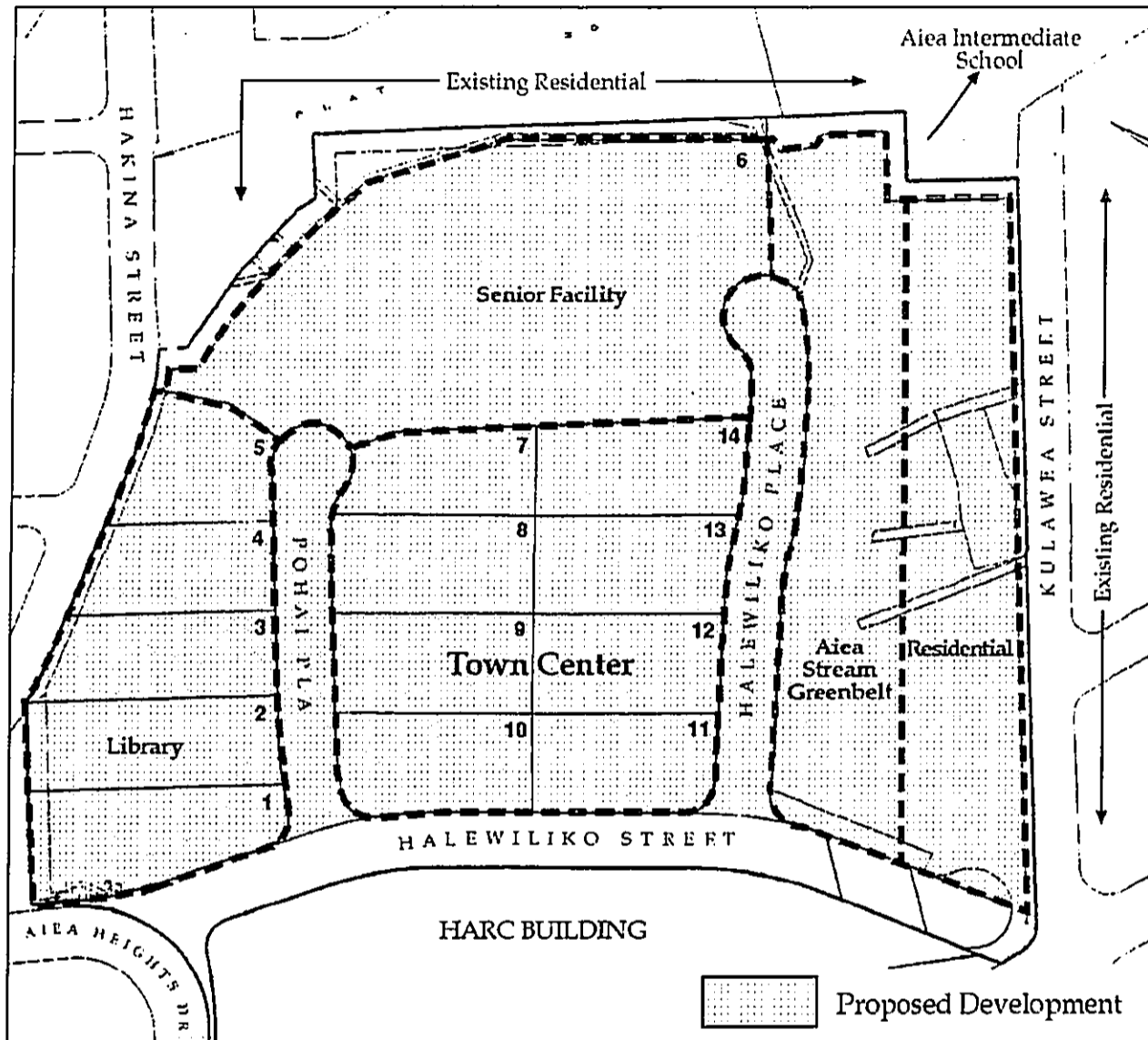
The 'Aiea Town Center project site is part of the larger former 'Aiea Sugar Mill property which is bounded by Ulune Street, 'Aiea Heights Drive, Kulawea Street, Hakina Street, and 'Aiea Intermediate School. Three new streets have been installed in the area as part of the earlier plans to turn the area into an industrial subdivision. The Master Plan will also take into consideration the future use of TMK 9-9-78, Parcel 5 and the required access to 'Aiea Intermediate School and the neighboring residential areas on Hakina Street.

The project site is located within a developed urban residential neighborhood. The administrative offices and laboratories of the Hawai'i Agriculture Research Center (HARC) occupy a portion of the former 'Aiea Sugar Mill site. HARC is a research center for forestry, coffee, vegetable crops, tropical fruits, and many other diversified crops in addition to sugarcane. 'Aiea Intermediate School is located to the northeast of the project site.



**Figure 3-1**  
Project Location

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**



**Figure 3-2**  
 Project Site Map and Existing Subdivision/TMK Map

**3.2 HISTORY**

The 'Aiea Sugar Mill began as the Halawa Plantation Company in 1898. A year later, the company changed its name to the Honolulu Plantation Company. The plantation originally consisted of 4,000 acres of sugar land extending from the coastal plain around Pearl Harbor up to the hillsides. The plantation operations prospered in the first half of the 20<sup>th</sup> Century, leading to the growth of Old 'Aiea Town which served as the commercial, social, cultural, and communication hub for the community.

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**

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At about the end of World War I, the Honolulu Plantation Company installed equipment to produce its own refined sugar. Plantation operations ended in 1947 after the company lost a significant portion of their prime sugar cane fields to military operations, roads, and commercial and housing developments. In 1947, California and Hawaiian Sugar Company (C & H) bought the refinery operations and continued operations there until 1994. The mill site was then sold to A & B Properties who built a smaller liquid sugar refinery behind the old mill in 1994 to meet Hawai'i's local demand. This facility was closed in 1996.

A clothing manufacturer, Crazy Shirts purchased the sugar mill property in 1994 with the intention of preserving the mill as a historic landmark and developing the site as its corporate headquarters. However, after determining that the renovation costs would be too expensive, Crazy Shirts razed the sugar mill in 1998 despite community opposition. The former sugar mill property was put back on the market and the Bank of Hawai'i took over the property from Crazy Shirts in May 2001 with the intention of also selling the property.

The City and County of Honolulu purchased Parcels 6-14 from the Bank of Hawai'i in December 2002. The Bank continues to own the remaining parcels.

### **3.3 EXISTING CONDITIONS**

The 'Aiea Sugar Mill structures were mostly demolished in 1998, leaving the subject 3.43 acre property essentially vacant. A large structure continues to occupy the future site of the senior facility. Existing infrastructure improvements primarily consist of access roads, utility lines, potable water, and waste water lines all sized previously to accommodate the industrial activities.

The topography at the project site is relatively level with topographic contours ranging between elevations of 100 and 120. The average cross slope of the main mill area is less than 2%. The 'Aiea Stream flows through Parcel 15 which is adjacent to the project site. The stream channel banks are approximately 7 to 15 feet high in vertical elevation above the channel invert.

Most of the flora and fauna is composed of introduced species and any archeological sites that may have existed have been significantly altered or destroyed by the last 100 years of industrial activity in the project area.

### **3.4 PLANNING ISSUES**

The relationship between the Town Center and neighboring areas present some planning concerns. These concerns include, but are not limited to, access from the neighboring residential areas and the 'Aiea Intermediate School and the future use of the remainder of the former mill property. Potential issues in each of these areas are:

- Neighboring residences that directly border the former 'Aiea Sugar Mill site may be impacted by Town Center activities. In addition, there should be pedestrian access to the Town Center from these residential areas.



## **'AIEA TOWN CENTER MASTER PLAN**

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### **City and County of Honolulu**

- The 'Aiea Intermediate School is located to the northeast of the project site. Students should have easy pedestrian access to the Town Center.
- This Master Plan calls for the State to acquire Parcels 1-5 for construction of the 'Aiea Public Library. It is unclear at this time whether the State will construct a new library on this site.
- This Plan also identifies Parcel 6 as the location of a senior facility. This plan is contingent on finding a developer to determine the type of facility and implement the project.
- A low-density residential development is planned for Parcel 15 of the 'Aiea sugar mill site. A landscape easement along the stream will preserve the greenbelt as a recreational area. A housing developer has not been identified.

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Section 4.0  
Master Plan

## **'AIEA TOWN CENTER MASTER PLAN**

**City and County of Honolulu**

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### **4.0 MASTER PLAN**

This Master Plan provides a general framework for the development of the 'Aiea Town Center. This framework is based on the lifestyle or community context of the project and the major design themes. The design concept primarily focuses on the Town Center, but also includes some guidelines for the planning and development of the library and the senior facility.

#### **4.1 LIFESTYLE**

The Town Center is intended to provide activities for different age groups that will utilize the center in different ways and at different times of the day. The primary users identified at the community charrette are as follows: youth, generation xers, baby boomers, and senior citizens. The requirements and expectations of each of these groups, as discussed at the charrette, are described below.

Youth: School age children and teenagers would primarily use the center after school and on the weekends. This group would hang out at the Town Center as well as attend organized activities such as scouting meetings or hula classes.

Generation Xers: This group consists of young adults in their 20s and early 30s. They would attend performances at the Town Center as well as participate in fitness and other types of classes.

Baby Boomers: Baby boomers would attend classes and participate in volunteer programs organized at the Center. This group would also shop at open markets and craft fairs. Baby boomers would use the Center during weekday evenings, weekends, and in the early morning.

Senior Citizens: Senior citizens would participate in many activities at the Town Center including craft and exercise classes. In addition, seniors would live at the nearby senior facility and could congregate at the Town Center for social activities.

#### **4.2 MAJOR THEMES**

The overall development concepts of the 'Aiea Town Center Master Plan are based on the following three major themes selected at the community charrette:

1. Old Community Center
2. Our Backyard/Our Front Porch
3. Multi-generational

These major themes support the community's lifestyle and suggest the physical form and organization of the Town Center development.

## 'AIEA TOWN CENTER MASTER PLAN

City and County of Honolulu

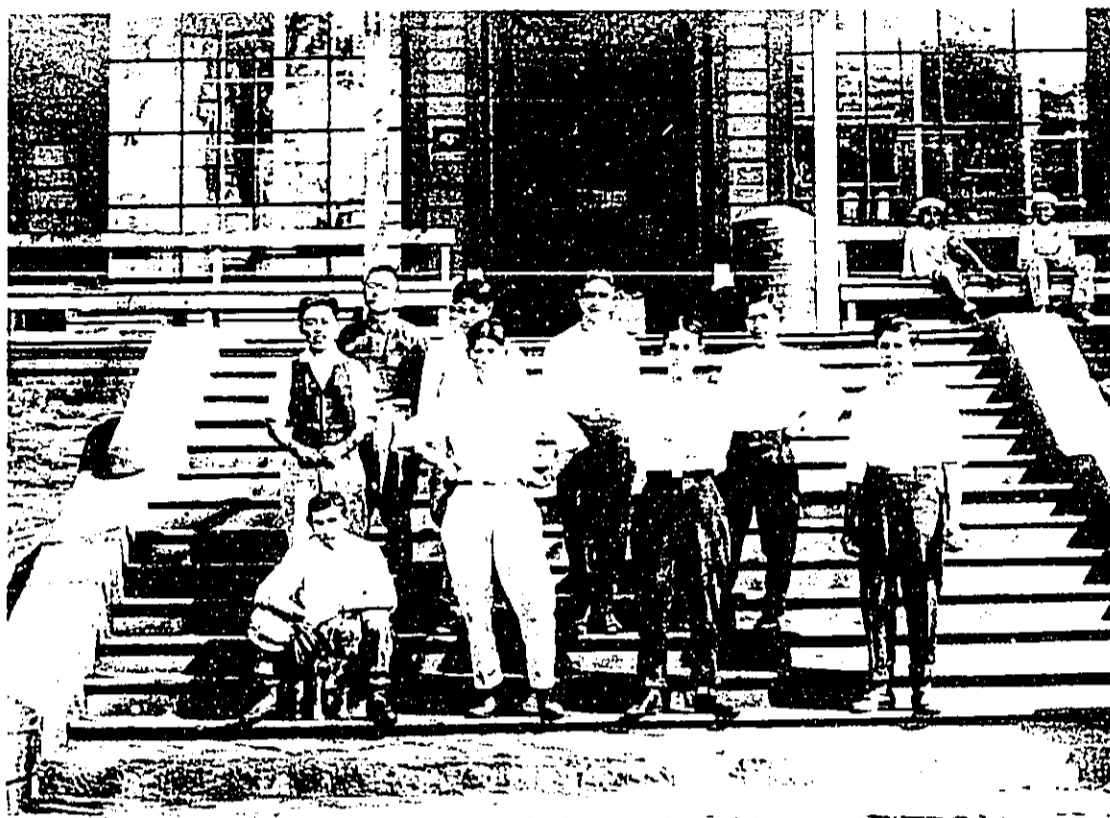


Figure 4-1

Young Men Outside 'Aiea Store, date unknown

### 4.2.1 Old Community Center

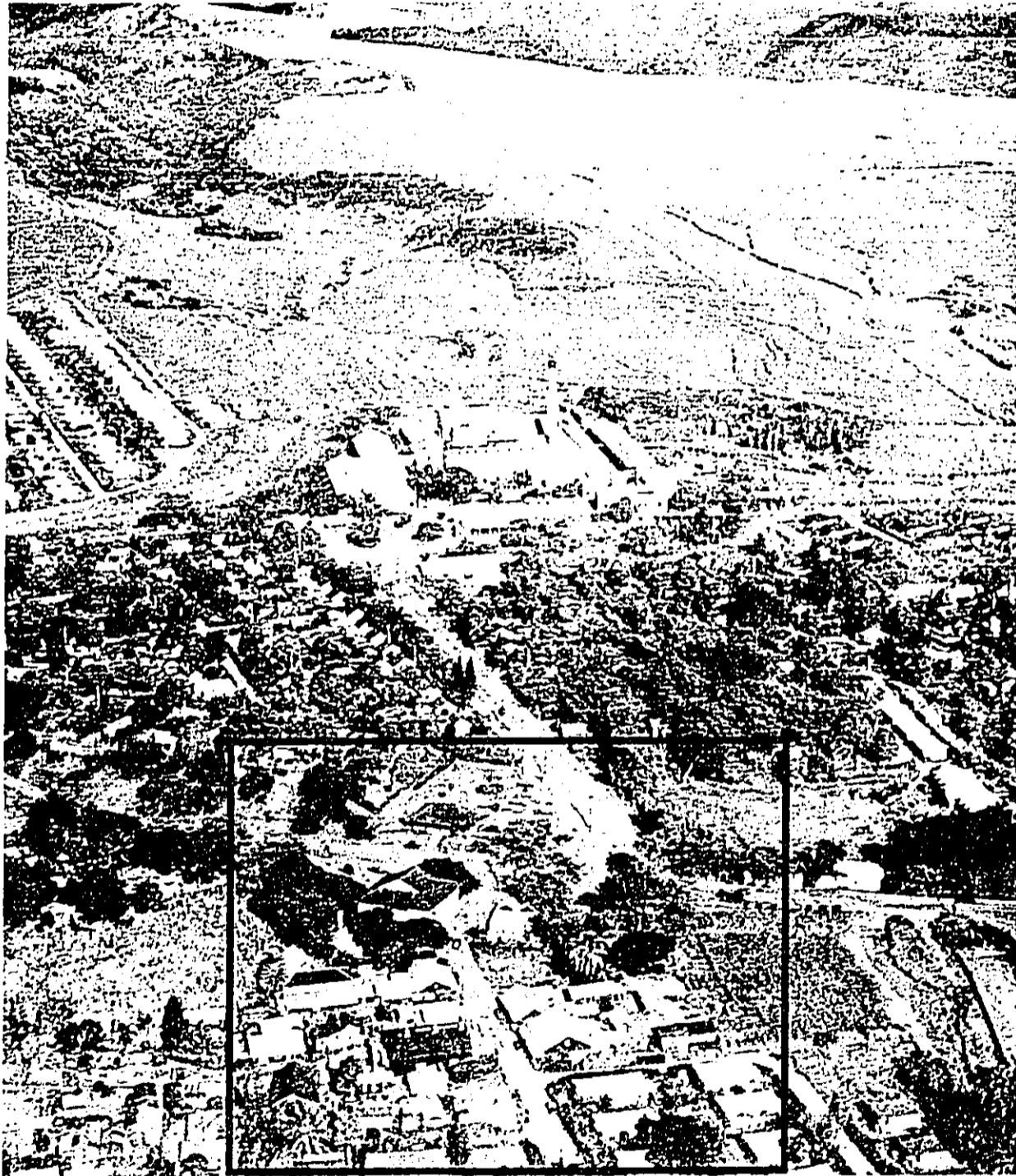
The first theme emphasizes 'Aiea Town Center as the center of community activities, much as the centers of the old plantation towns were in the heyday of the sugar plantations. Figure 4-1 illustrates young men having their photograph taken outside 'Aiea Store in the Old Community Center. Old 'Aiea Town grew up around the mill, which is shown in Figure 4-2. The Town became the center of community life in the first half of the 20<sup>th</sup> Century. The variety of businesses and activities lining the streets are shown in Figure 4-3.

In the design concept of 'Aiea Town Center, the buildings are oriented along pedestrian streets to create a streetscape atmosphere. A comparison of Figures 4-4 and 4-5 illustrates how the design concept for the 'Aiea Town Center emulates the design of the Old Town.

The Old Town was not only a center of daily community activity; it was also the center of community celebrations. An example of a community event is shown in Figure 4-6, a photograph of a Bon Dance in Old 'Aiea Town. The two pedestrian streets in the design concept for 'Aiea Town Center will make an excellent setting for similar community celebrations. Figure 4-7, a rendering of a community craft fair, shows a community gathering at the new Town Center.

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**

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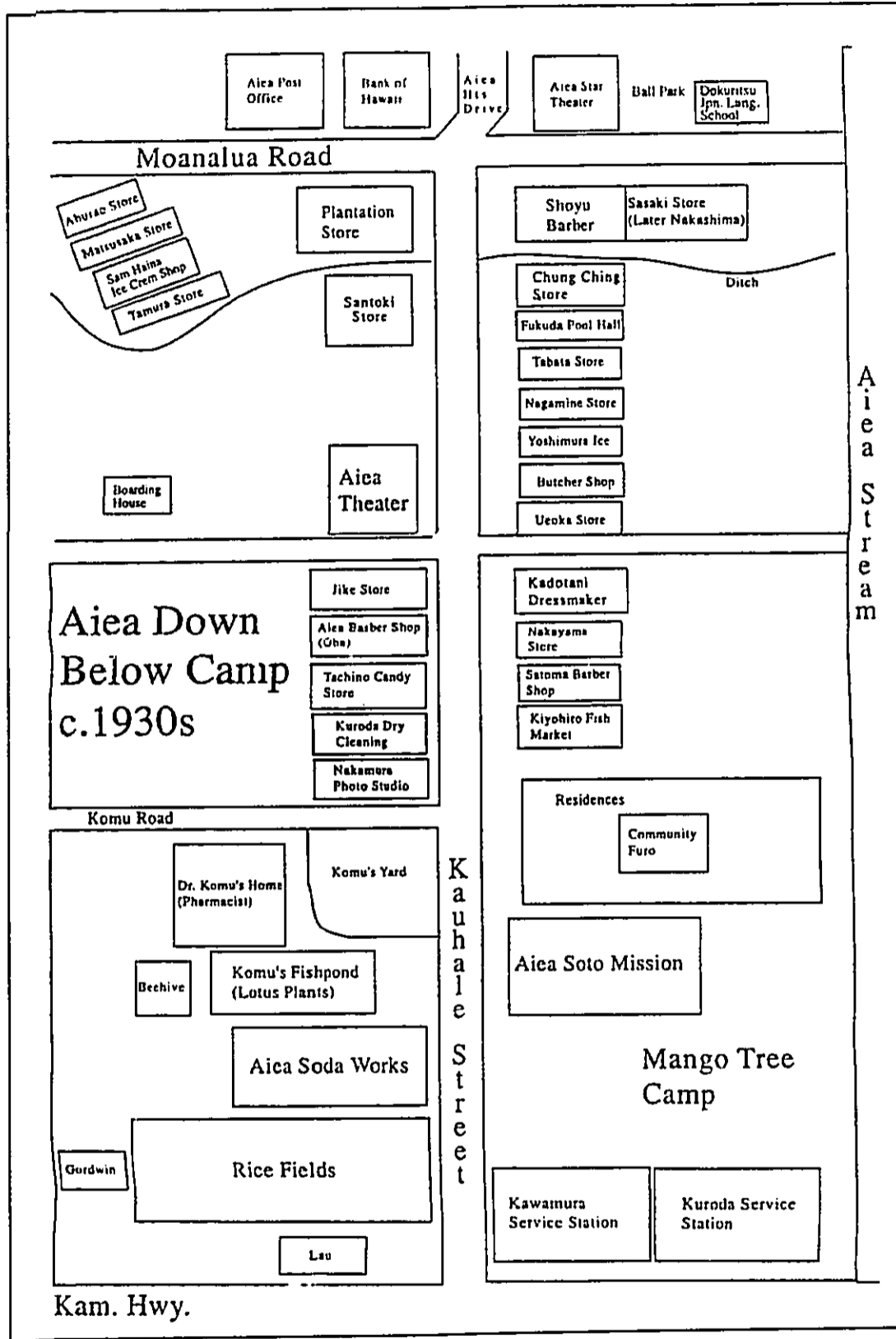


**Figure 4-2**  
**'Aiea, 1940 (Inset of Old Town)**

Source: Paradise of the Pacific, Volume 52 #5

**'AIEA TOWN CENTER MASTER PLAN**

City and County of Honolulu



**Figure 4-3**  
Establishments in Old 'Aiea Town

Source: Ron Oba, *Hawai'i Herald*, date unknown

**'AIEA TOWN CENTER MASTER PLAN**  
City and County of Honolulu



Figure 4-4  
Old 'Aiea Town, 1940

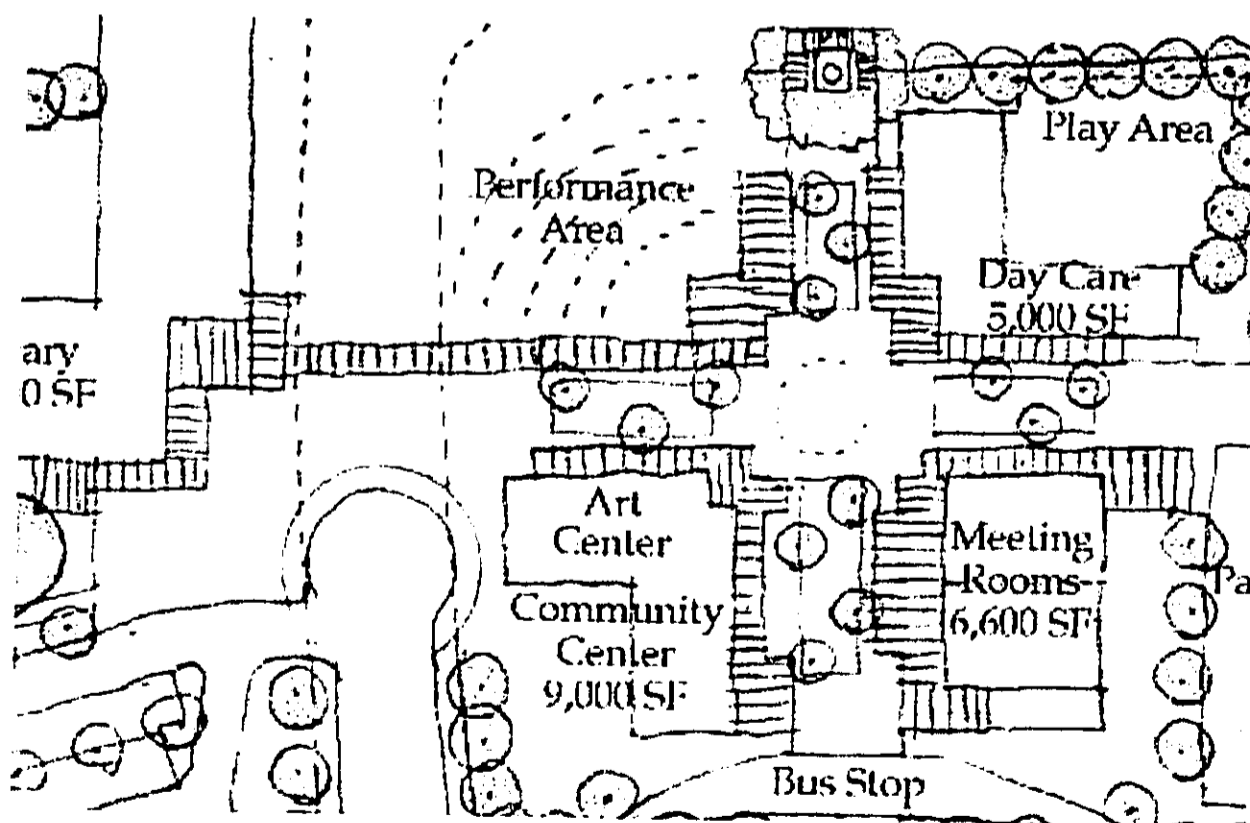


Figure 4-5  
Configuration of 'Aiea Town Center

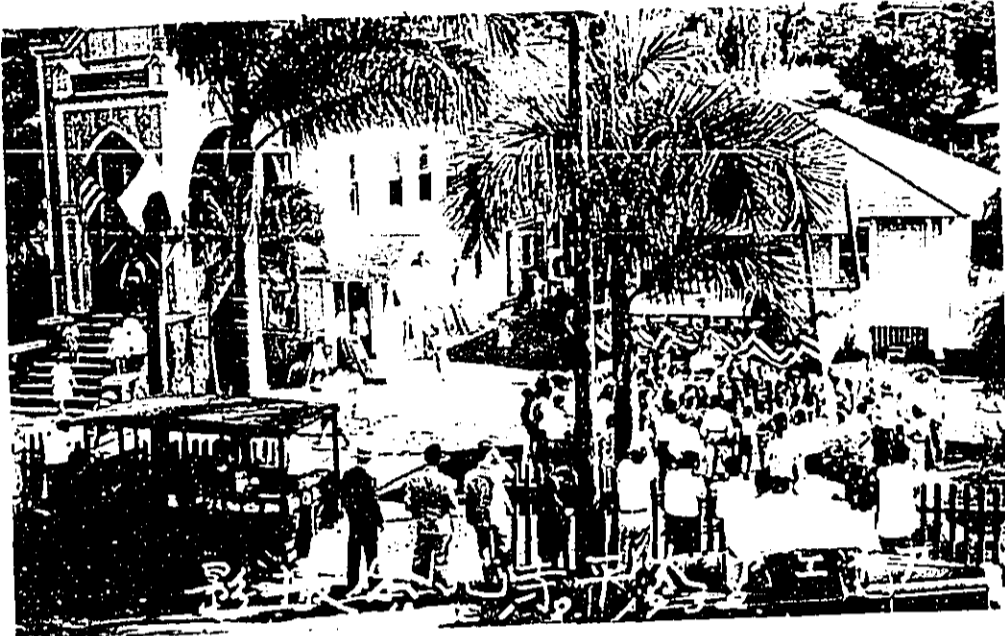


Figure 4-6  
Bon Dance at Taiheiji Mission, Old 'Aiea Town, date unknown

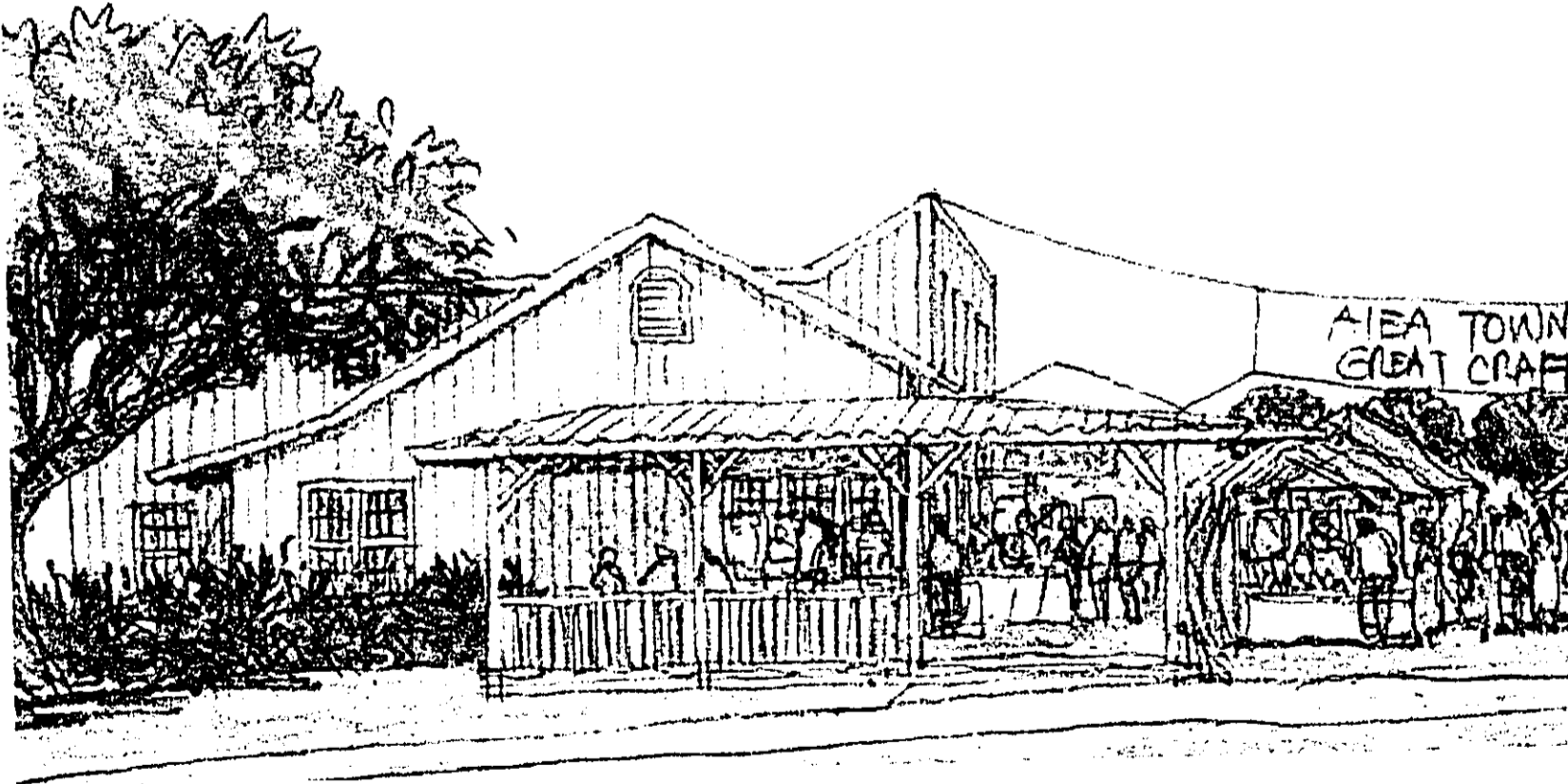


Figure 4-7  
Community Event at 'Aiea Town Center





**'AIEA TOWN CENTER MASTER PLAN**  
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**4.2.2 Our Backyard/Our Front Porch**

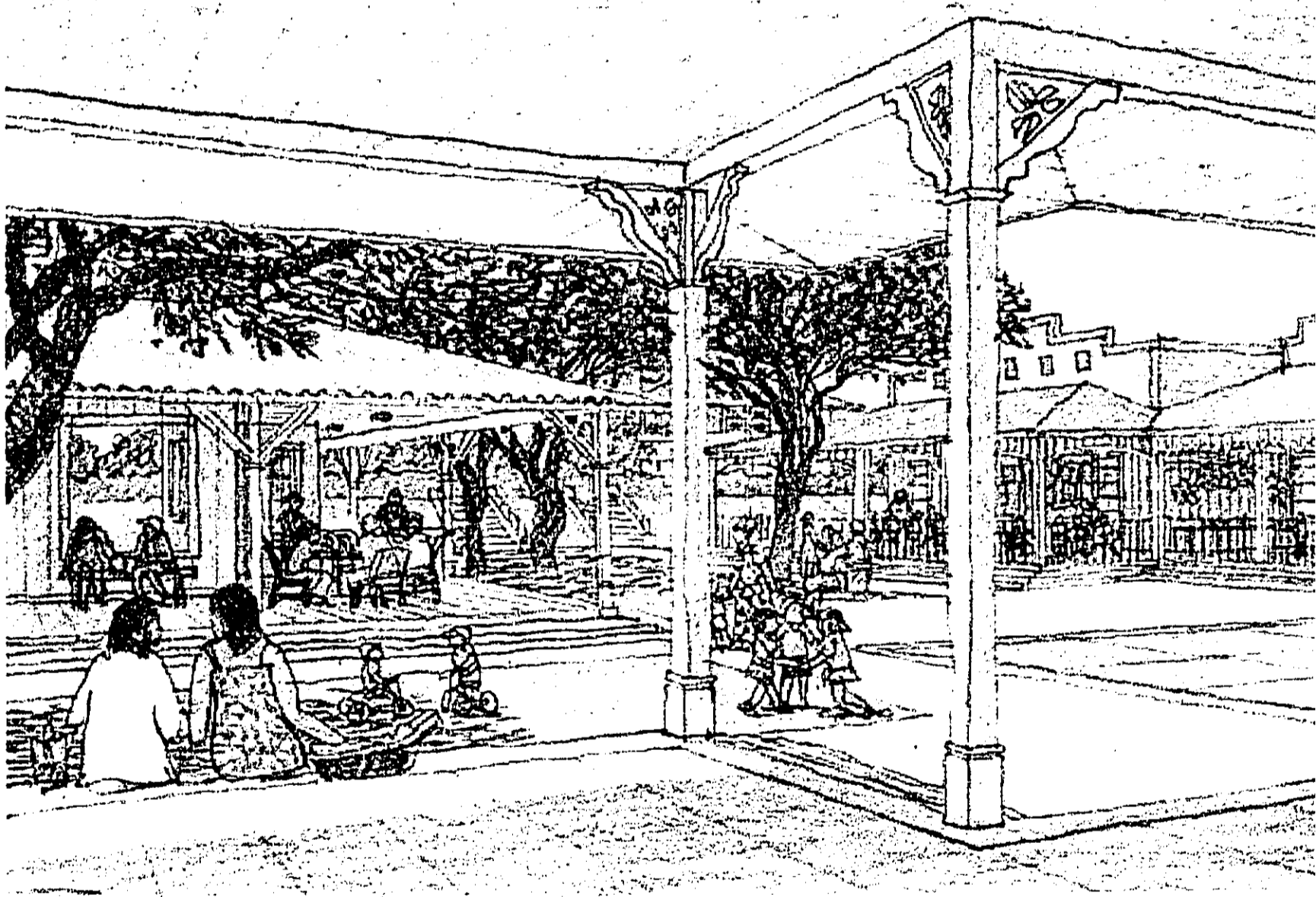
The Our Backyard / Our Front Porch theme emphasizes that 'Aiea Town Center should be the backyard or front porch of the 'Aiea community. Old 'Aiea Town was a place where people could hang out with family and friends as illustrated in Figure 4-8. In this old photograph, women and children are sitting underneath the lanai in front of Tachino Candy Store and Oba Barber Shop.



**Figure 4-8**  
Outside Tachino Candy Store and Oba Barber Shop, date unknown

The design of the Town Center will provide open-air lanai space where residents can meet, talk story, and relax. Figure 4-9 shows people gathering and hanging out in the center court area of the new 'Aiea Town Center.

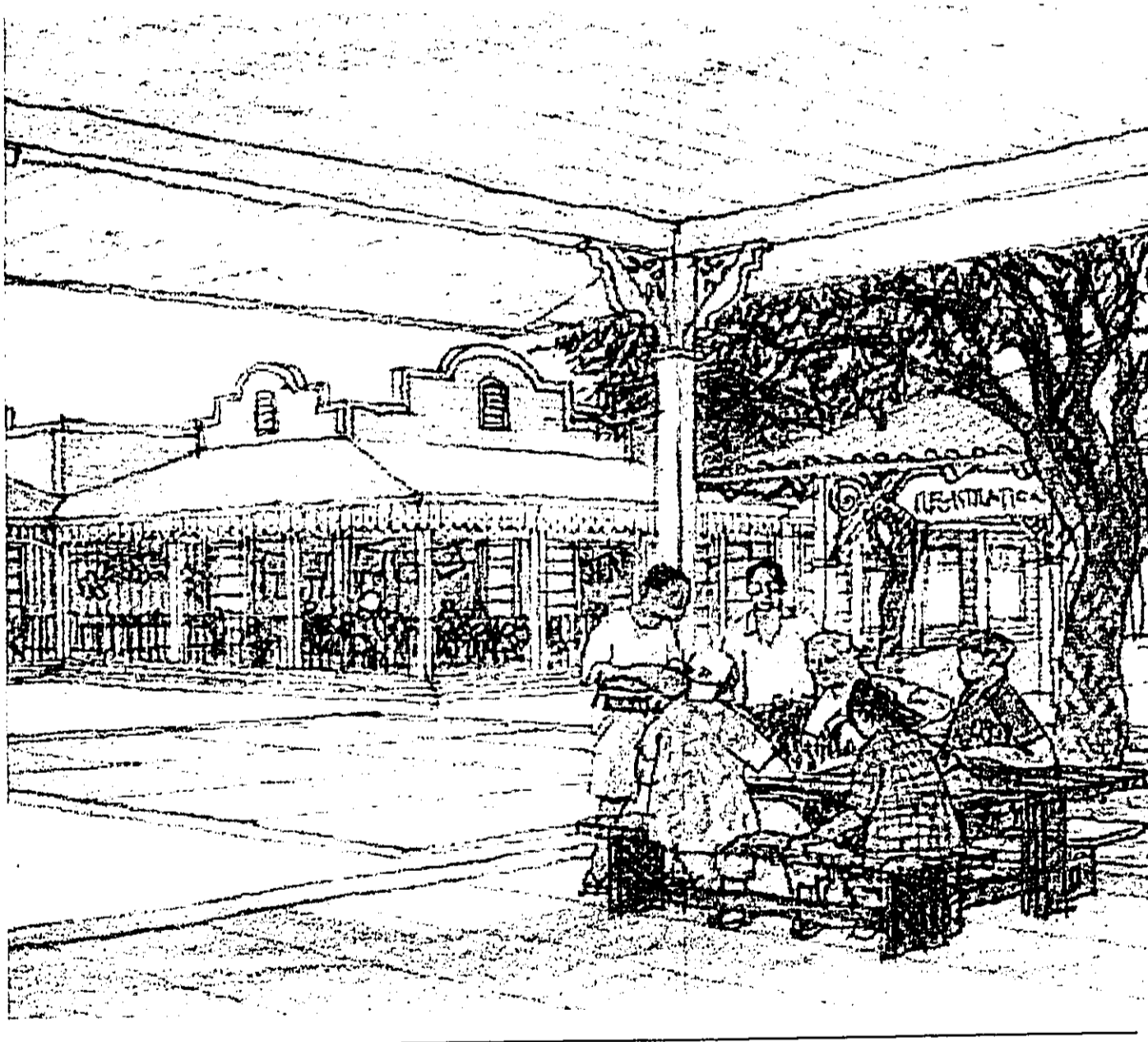
It is envisioned that the backyard / front porch theme would produce lanais which serve as interior spaces as well as have identities as places of informal gathering, lounging, passive recreation, and viewing. These porch spaces would contribute significantly to the architectural character and expression of the Center.



**Figure 4-9**  
Center Court, 'Aiea Town Center

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**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**

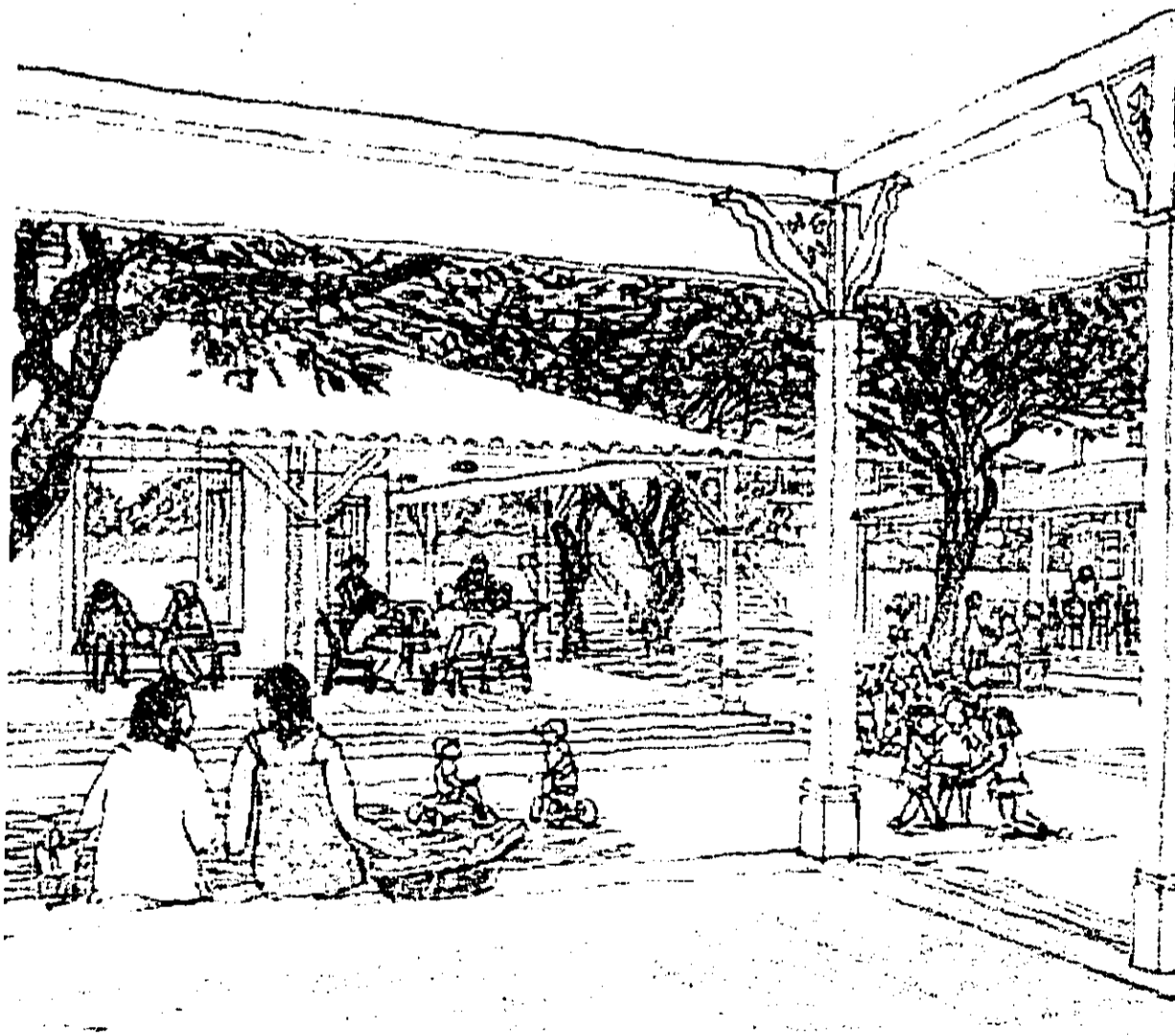
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**4.2.3 Multi-Generational**

The multigenerational theme emphasizes that the new 'Aiea Town Center should be a gathering place for residents of all ages. This theme also highlights different generations assisting each other.

The 'Aiea Town Center should provide activities for all different age groups making the center a multi-generational facility. There are both exterior and interior places for multiple generations to gather and participate in activities from classes to shopping at the farmer's market. The variety and flexibility of activities and uses offered at the Town Center contribute to the multi-generational theme.

Figure 4-10 illustrates children playing in the center court area of the new Town Center with adults sitting and talking story or playing mahjong on nearby lanais or under the canopy of nearby trees.



**Figure 4-10**  
Multi-Generational Use of 'Aiea Town Center

**'AIEA TOWN CENTER MASTER PLAN**  
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**4.3 CONFIGURATION / DESIGN CONCEPT**

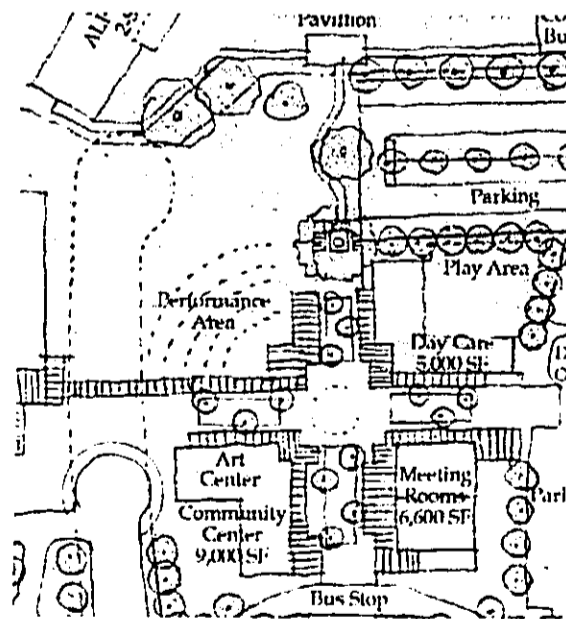
The design concept for the Town Center is shown in Figure 4-12. The Town Center, library, and senior facility are oriented to establish an uninterrupted vehicle free zone that will encourage interaction between the users of the different facilities. The library and the Town Center are connected by a covered walkway while uncovered pathways connect the senior facility and the Town Center.

Pedestrians will be able to enter the site from several points. Pedestrian access from the residential areas west of the library will be provided through ramps and steps. 'Aiea Intermediate School students will enter the area by crossing the stream and the proposed greenbelt. Students coming from 'Aiea High School will be able to enter the area via a pathway near the library. A bus stop will be located in front of the Town Center to provide easy public transit access to the facility. Bike racks will be located at both the Town Center and library. Parking will be concentrated on the perimeter of the site. 135 parking spaces are designated for the Town Center. All parking lots will be landscaped to enhance their appearance and blend them with the tree-lined walkways and open areas. To minimize the paved areas, a portion of the lot adjacent to the daycare area on the design scheme may be grassed and used for event parking only. During off-hours, the drop-off area and parking lots will serve as loading zones for community events.

The library, senior facility, and Town Center will share the central open space depicted in Figure 4-11. Part of this open space is designated as a pavilion-style performance area. This landscaped area will slope gently for comfortable seating with good visibility.

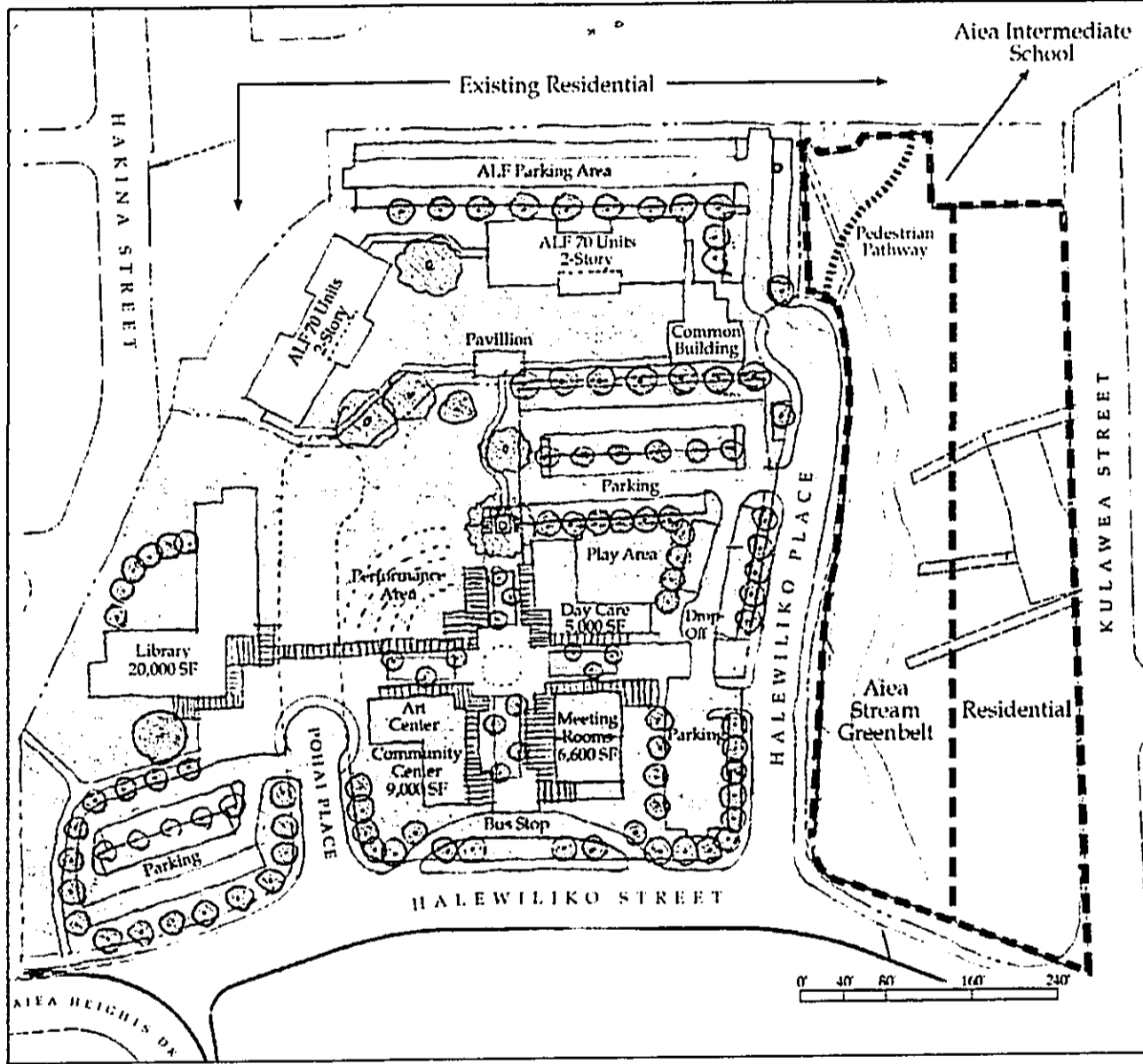
The existing roadway on the western portion of the property has been shortened to provide pedestrian access between the library and Town Center. Dotted lines show the location of the existing roadway (Figure 4-11). The area will remain accessible to fire and emergency vehicles. The existing roadway located on the eastern portion of the property has been maintained to provide vehicular access to the Town Center parking lot and the senior facility.

The intersection of 'Aiea Heights Drive with Halewiliko Street will be designed as a gateway and entryway to the Town Center. When motorists and pedestrians approach the Town Center from 'Aiea Heights Drive, the library will be the most visible structure and, as such, it can be the landmark for the community. The library parking lot that fronts Halewiliko Street will be landscaped appropriately to provide an attractive streetscape. Town Center signage should also be developed.



**Figure 4-11**  
Open Space, Performance Area, and Shortened Roadway

**'AIEA TOWN CENTER DRAFT MASTER PLAN**  
**City and County of Honolulu**



**Figure 4-12**  
**'Aiea Town Center Design Scheme**

**'AIEA TOWN CENTER DRAFT MASTER PLAN**

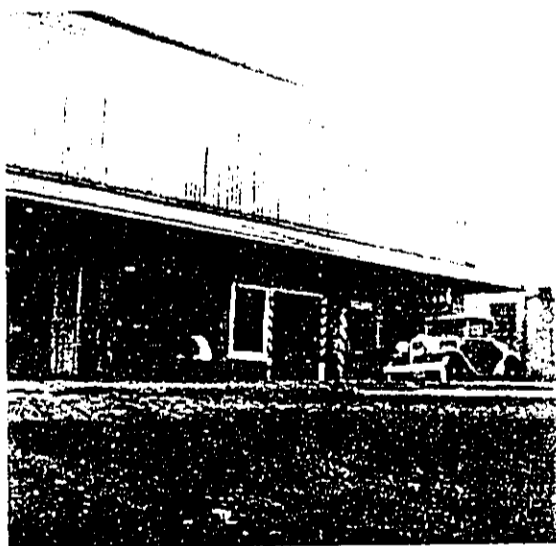
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**4.3.1 Town Center**

The design concept of the Town Center is based on Old 'Aiea Town which consisted of plantation style wooden buildings with covered lanais. This building style is typical of sugar mill towns in Hawai'i. Figure 4-13 and 4-14, photographs of 'Aiea Barber Shop and 'Aiea Store, are examples of this plantation style type of building. The desired design character for the buildings in 'Aiea Town Center is provided in Figure 4-15.



**Figure 4-13**  
'Aiea Store, date unknown



**Figure 4-14**  
'Aiea Barber Shop, date unknown



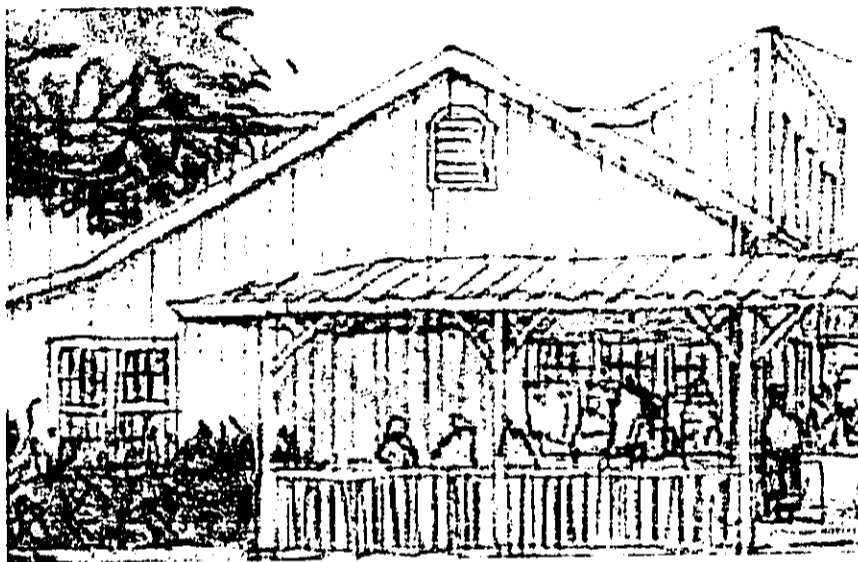
**Figure 4-15**  
Plantation Style Architecture



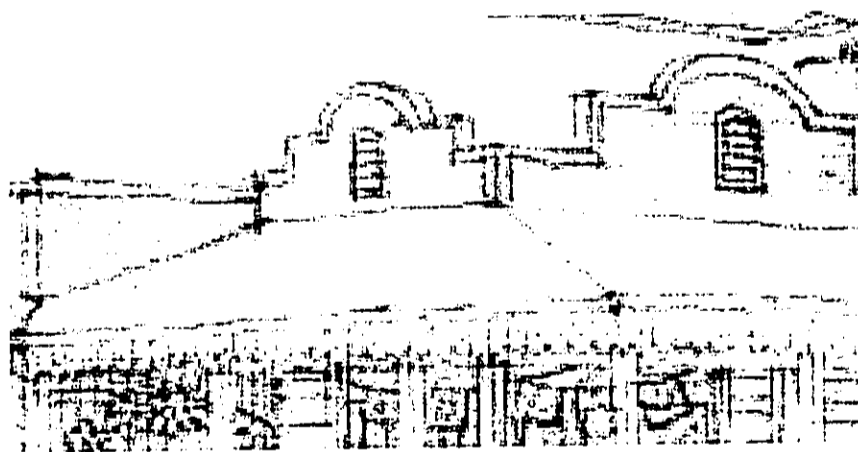
**'AIEA TOWN CENTER DRAFT MASTER PLAN**

**City and County of Honolulu**

The buildings in 'Aiea Town Center will consist of three one story structures approximately 30 feet in height. The variety of building facades, shown in Figure 4-15, will create the streetscape atmosphere. Design details include elements such as Victorian style column brackets and bases, cutout eave borders, double-hung windows, and attic vents. In addition, roofs should be constructed of corrugated metal. The buildings and roofs should be painted a variety of different colors prevalent in 'Aiea Town. These design elements are shown in Figures 4-16 through 4-18.



**Figure 4-16**  
Vent and Corrugated Metal Roof



**Figure 4-17**  
Eave Cutouts and Vents



**Figure 4-18**  
Column Base and Bracket

## 'AIEA TOWN CENTER DRAFT MASTER PLAN

City and County of Honolulu

Bricks from the recently demolished 'Aiea Sugar Mill would be incorporated into the center court area (Figure 4-19). A historic plaque from the old sugar mill will also be incorporated into the design elements. To further highlight the "Old Community Center" theme, historic displays should be included throughout the Town Center exhibiting memorabilia from the mill and the Old Town.

The arcade lanais are a prominent design feature in the Town Center. Some of the lanai areas will have railings as shown in Figure 4-16. The lanai area adjacent to the performance area is composed of a wall with windows leading to the performance area. This unique design feature is depicted in Figure 4-20.

Although much of the activity is designed to occur in the center court area, activity in the Town Center will be visible from the street as shown in Figure 4-21. This will help attract people to the area.

During the master planning process, another design concept was also considered. There is no center court area in this design which is composed of two larger buildings rather than three smaller buildings. The design scheme presented in this Master Plan was chosen because it better supports the three themes identified during the charrette process. The alternative concept is presented in Appendix A.

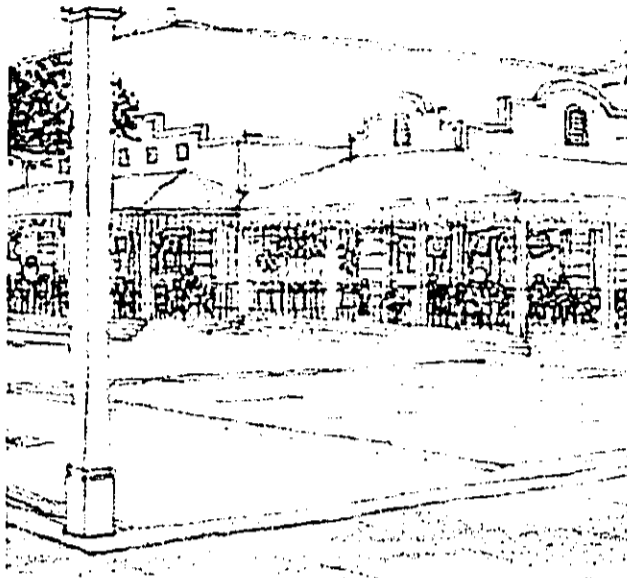


Figure 4-19  
Center Court Area



Figure 4-20  
Lanai Window

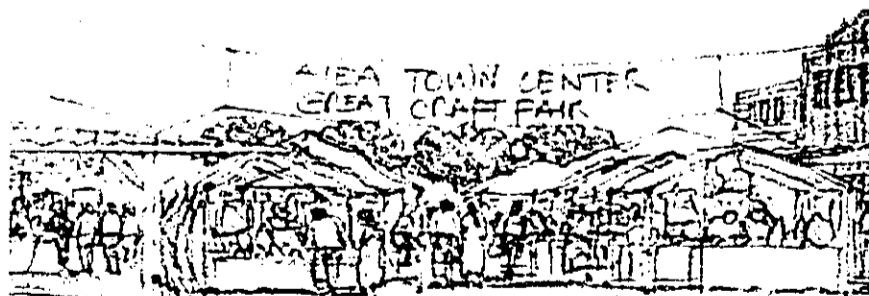


Figure 4-21  
View of 'Aiea Town Center from Street

**'AIEA TOWN CENTER DRAFT MASTER PLAN**  
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**4.3.2 Library**

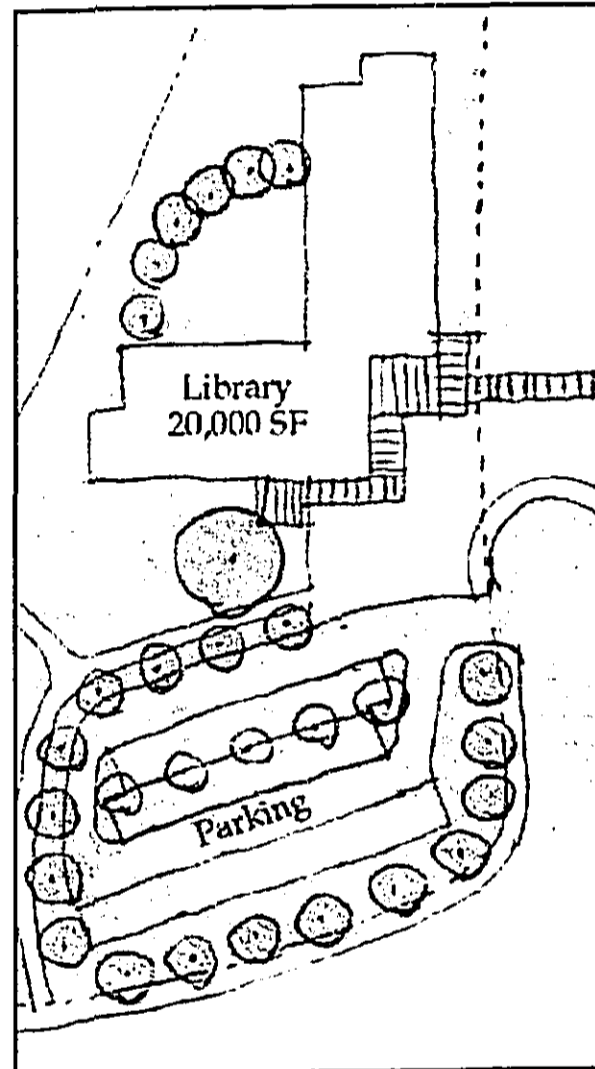
Although the primary focus of this Master Plan is the 'Aiea Town Center, key elements that should guide the design of the library have also been developed.

The current 'Aiea Library is considered inadequate and the community has requested an upgraded facility for several years. The proposed location is favored because of its proximity to 'Aiea High School, 'Aiea Intermediate School, and Webling Elementary School. In addition, the library will compliment the Town Center by drawing people and activity to the area. It will also provide amenities to residents of the Senior Center.

The library, situated behind the parking lot in an area of higher elevation, will be a prominent landmark in the community. It will be directly visible from 'Aiea Heights Drive.

The library should be a one to two story building with a minimum of 20,000 square feet (Figure 4-22). The proposed square footage is based on input gathered during the community charrette process. The maximum building height should be 35 feet. The design should be compatible with the Town Center and the surrounding residential area.

Three signature elements of the library design were developed. First, the library should be a landmark for the 'Aiea community. Its elevation over the parking lot will ensure that it is highly visible. Second, the design of the library should take advantage of the outstanding views of Pearl Harbor available from the site. Finally, the "Our Backyard/Front Porch" theme should also be applied. Open lanai areas should be incorporated in the design to implement this theme. The Master Plan proposes to connect the lanai to the Town Center with a covered arcade.



**Figure 4-22**  
Library

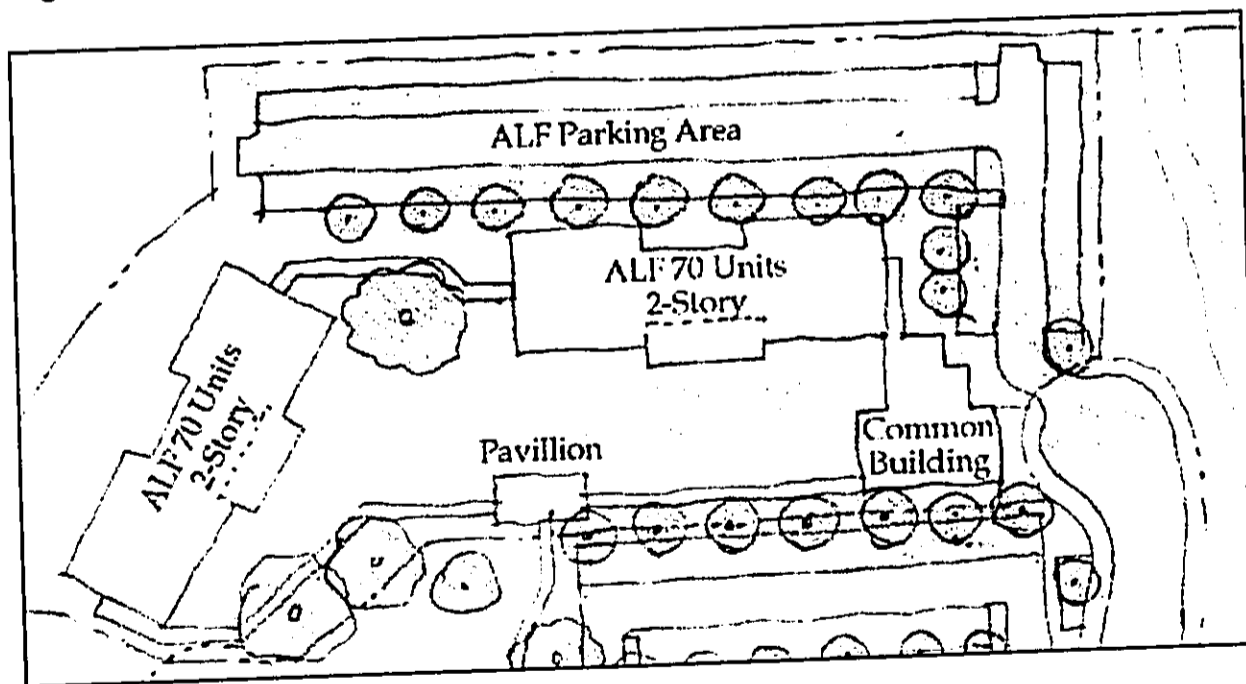
### 4.3.3 Senior Facility

The senior facility is planned for the northern portion of the project site (Figure 4-23). This Master Plan provides key design concepts and guidelines for its integration with the Town Center and Library.

A senior facility such as an independent or assisted living facility is compatible with the proposed town center and library. The 'Aiea community has identified senior care facilities as an area need. The proposed senior facility will be located near medical services, commercial areas, bus lines, and the proposed library and Town Center. The senior facility will also benefit the Town Center by bringing activity to the center.

An existing roadway on the east side of the property is proposed as the access to the senior facility. The senior facility common building is shown fronting the Town Center parking lot. Green space should be provided as a buffer between the Town Center facilities and the housing units. The units should be located in one or more separate two-story "plantation" style buildings in order to avoid the use of overly large and incompatible building forms. The maximum height of the buildings should be 35 feet.

140 assisted living units are identified in the Conceptual Plan. However, this number, which is based on input from the charrette process and other assisted living projects, is an estimation and will probably change as the project is further developed and the type of senior facility is determined. The developer of the project will determine the type of senior facility which could range from an assisted living facility to senior housing without any nursing services.



**Figure 4-23**  
Senior or Assisted Living Facility (ALF)

**'AIEA TOWN CENTER DRAFT MASTER PLAN**  
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The parking lot should be situated behind the senior facility. The exact number of parking stalls will be determined when the facility is designed.

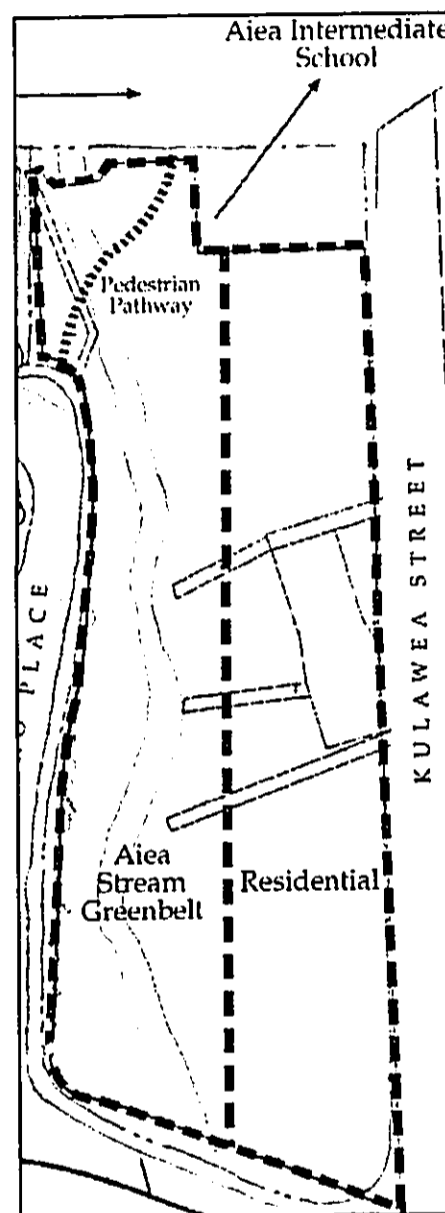
The architectural design of the senior facility should be compatible with the Town Center and the surrounding residential community.

**4.3.4 'Aiea Stream Greenbelt**

Although the 'Aiea Stream is mostly channelized, the area around Stream should remain in a natural state. This greenbelt will provide opportunities for passive recreation. A pathway should be developed along the stream. The pedestrian pathway at the northern portion of the parcel will connect the greenbelt with the Town Center as well as provide pedestrian access to the Town Center from 'Aiea Intermediate School (Figure 4-24).

**4.3.5 Residential**

The area bordering Kulaweia Street could be developed as a low-density housing area (Figure 4-24). This type of low-density residential development would be compatible with the existing adjacent single-family residential neighborhood. However, the extent of hazardous materials in the area would need to be thoroughly studied prior to any such development.



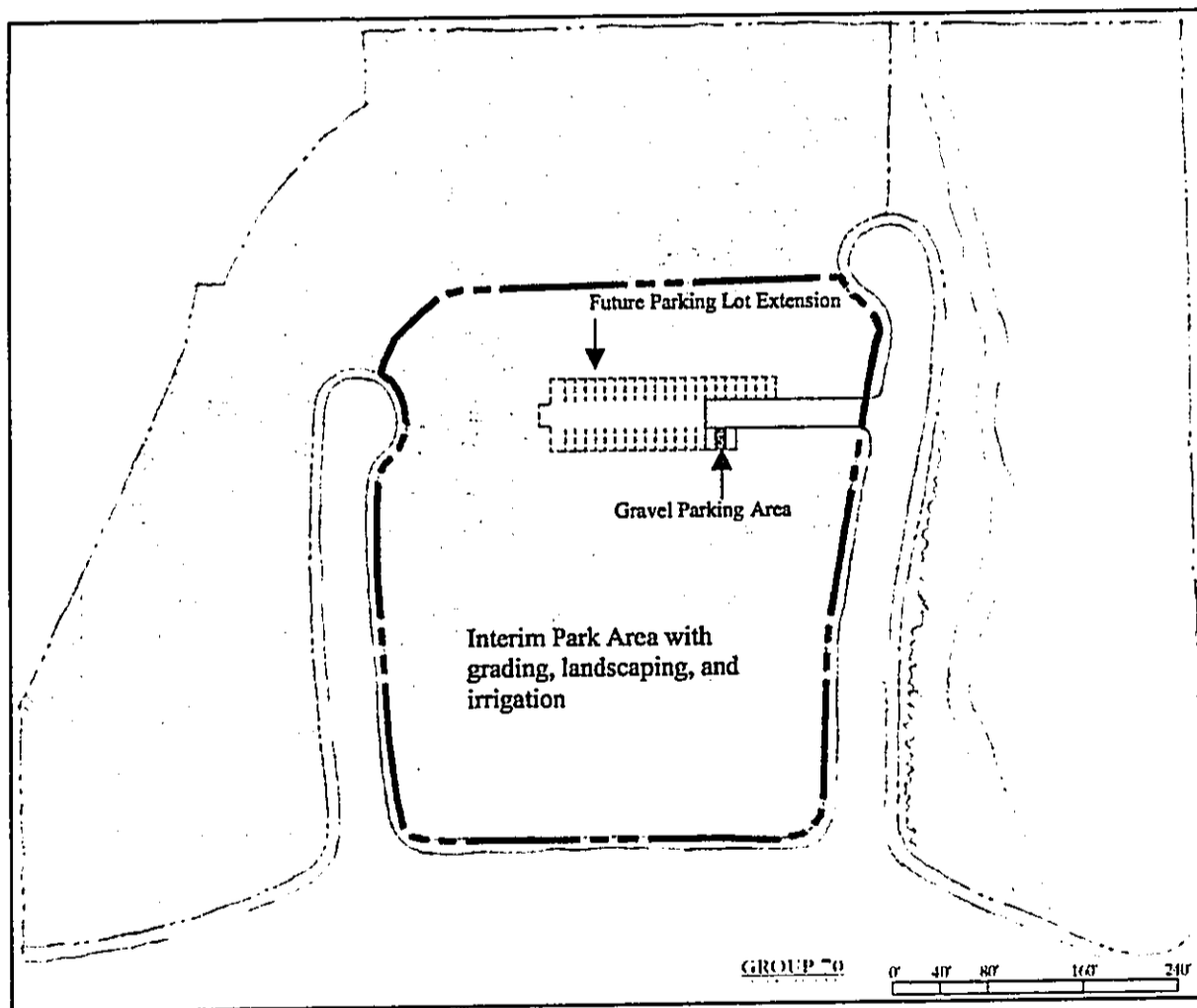
**Figure 4-24**  
'Aiea Stream Greenbelt & Residential  
Parcels

**'AIEA TOWN CENTER DRAFT MASTER PLAN**  
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**4.4 CONCEPTUAL INTERIM PARK PLAN**

The interim plan for the Town Center property includes passive park and general field uses (Figure 4-25). The property is currently graded for flat pads which step down toward the street. Therefore, mass-grading for the future Town Center must be completed. Once graded, much of the site will be grassed to allow for functional uses as a park area. Irrigation will also be installed and a gravel parking area will be provided. Landscaping and other improvements will be designed in coordination with the layout of future Town Center facilities. This will minimize tree relocation or removal.

This interim park would be used for passive recreation and for community gatherings such as farmers markets, community festivals, and craft fairs.



**Figure 4-25**  
Interim Park Plan



## **5.0 PROPOSED USES FOR THE TOWN CENTER**

The Town Center should be a dynamic center that attracts people and is economically sustainable. The uses of the center should have a synergistic relationship with the library and senior facility which will also contribute to the vitality and sustainability of the center.

### **5.1 USES FOR 'AIEA TOWN CENTER IDENTIFIED BY TASK FORCE MEMBERS**

During the two design charrettes, the Task Force members proposed several uses for the Town Center. Suggestions included indoor activities and uses that would take advantage of the outdoor and lanai spaces at the Center. The suggestions are summarized below:

#### Indoor Activities:

- Daycare center
- Adult daycare center
- Crafts/gardening activities
- Gathering place for kids (classes, clubs, scouts, A + , after school care, tutoring)
- Classrooms for lessons (hula, drawing karate, judo, ballroom dancing, parenting classes, historical/cultural education, self improvement classes, and exercise classes)
- Senior activity center
- Youth/teen center for at-risk kids
- Meeting rooms
- Kitchen/cooking
- Art center

#### Open Air/Lanai Activities

- Gate ball/croquet
- Picnic areas with barbeque pits
- Volleyball courts
- Open market (farmer's market/craft fair)
- Gathering places to sit, drink coffee, play music, tell stories, read, and study
- Performance space for dramatic arts

### **5.2 OVERVIEW OF COMMUNITY CENTERS**

The 'Aiea Town Center is a unique and groundbreaking project and there are few models that are comparable to the Town Center concept proposed in this Master Plan. Most models are either traditional community centers such as the YMCA, or social service providers such as the KEY Project or projects comprised of mixed residential, retail, office, entertainment, and civic uses.



## **'AIEA TOWN CENTER MASTER PLAN**

### **City and County of Honolulu**

Although they are not exactly comparable, eight community and recreation centers on O'ahu and six mainland centers were reviewed. Tables 5-1 and 5-2 summarize the uses, activities, target population, and fees at the centers. Common uses are fitness areas, classrooms, exhibition areas, meeting rooms, childcare facilities, game rooms, and thrift shops. Most of the community centers target low-income seniors, children, or families. To fund their programs, centers charge membership fees and fees for classes, operate thrift shops, accept donations, and administer grants.

Of all the examples, the Mō'ili'ili Community Center is the most relevant example. The tenant/user mix includes a daycare center, a thrift shop, and recreational classes. Although these uses generate a lot of activity throughout the day, the Center is not a place to hang-out like the 'Aiea Town Center will be.

### **5.3 PROPOSED USES FOR THE 'AIEA TOWN CENTER**

The Town Center should have a vibrant mix of activities, users, and tenants. Recommended uses for the 'Aiea Town Center have been selected based on their compatibility with the three major themes: Old Community Center; Our Backyard/Our Front Porch; and Multi-generational. The proposed uses are summarized in Table 5-3.

Several uses found in other community centers or suggested by Task Force members are not recommended for the Town Center because they do not support the major themes or are less compatible than other uses. For example, the center for high-risk teens is not recommended because there is insufficient space and this activity may not be compatible with the library, senior facility, and daycare center. A youth center would require a large area where teens could express themselves and have functions. Similarly, banquet halls and a formal restaurant should not be considered because they would not be compatible with the informal character of the Town Center.

#### **5.3.1 Open Air/ Lanai Activities**

The design of the Town Center includes large open areas and extensive covered lanais which can accommodate all of the proposed open air/lanai activities. Farmer's markets, craft fairs and other open markets will take advantage of the center court area of the Town Center. These markets support the "Old Community Center" theme and would draw crowds to the area.

An outdoor performance area has been identified in the design scheme. Other low-impact activities such as gate ball, volleyball, picnic and barbeque areas can make use of the green spaces behind the performance area. These activities will create recreational opportunities for families and different age groups.

The covered lanais are ideally suited for passive recreation including sitting, "talking story", reading, studying, playing music, and playing games.

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**

<b>Community Center</b>	<b>Uses/Activities</b>	<b>Target Population</b>	<b>Fees/Other</b>
Lanakila Multi-Purpose Senior Center (Honolulu)	Educational and recreational classes, blood pressure check, senior fitness, music, information and referrals on public entitlements and other information, volunteer opportunities	Senior adults, frail elderly, low income	Sliding scale
Windward YMCA (Kailua)	Childcare, Summer Fun, fitness programs	Not limited	Varies
Mō'ili'ili Community Center (Honolulu)	Recreational, educational and health classes and seminars. Eldercare, counseling, escort and transportation services. Childcare including after school care, and A + Program. Thrift store	Senior Citizens	Membership fees. Some services are fee for service. Less than 7% of operating funds from thrift store. State Contract
Kapahulu Senior Center (Honolulu)	Senior center with classes, thrift store	Senior citizens	Donations. \$25/year membership. \$7,000/ yr from thrift shop
Japanese Cultural Center of Hawai'i (Honolulu-Mōili'ili)	Japanese classes and demonstrations and workshops pertaining to the history and culture of the Japanese in Hawai'i. Resource Center and gallery. Martial arts practice room. Meeting rooms, banquet hall and restaurant/lounge	Not limited	Membership fees. Some services are fee for service
Kualoa-He'eia Ecumenical Youth Project - Key Project (Kāne'ohe)	Summer cultural heritage program for elementary youth, youth counseling, youth drop-in recreation center, senior citizen program, information and referral on public entitlements and other information, and education and informational classes	Youth, low-income, families at-risk	Services free or have minimal fee
Waialua Community Association (Hale'iwa)	Meeting rooms. Free martial arts classes, basketball and other activities, such as ballet and hula. Rents gym for parties	Residents of Hale'iwa, Waialua, or Mokulē'ia	Membership dues
Susannah Wesley Community Center (Kalihi, Waipahu)	Counseling, outreach, referral, and crisis services to youth/families. Recreation activities for youth. Immigrant services	Immigrant, youth, elderly	Services free or have minimal fee

**Table 5-1**  
Survey of Hawai'i Community Center Uses/Activities, Target Population, and Fees

**'AIEA TOWN CENTER MASTER PLAN**

**City and County of Honolulu**

<b>Community Center</b>	<b>Uses/Activities</b>	<b>Target Population</b>	<b>Fees/ Other</b>
<b>The Town Center of Bedford</b> Bedford, MA 781-275-4880 <a href="http://www.town.bedford.ma.us/town_center/the_town_center_of_bedford.html">http://www.town.bedford.ma.us/town_center/the_town_center_of_bedford.html</a>	Houses a variety of non-profit/educational organizations on a rental basis and Town Departments. The building is managed by a non-profit organization. Tenants include Bedford Chamber of Commerce, Thrift Shop, Council on Aging, Recreation Department Kids Club.	Seniors, Youth	Room Rental
<b>Litchfield Community Center</b> Litchfield, CT 860-567-8302 <a href="http://www.thecommunitycenter.org/">http://www.thecommunitycenter.org/</a>	Meeting space for civic groups, community gathering place, dance floor, classes, youth programs, & health screenings.	Seniors, youth	Fee for services
<b>The Community Center</b> Franklin MA 508-520-4909 <a href="http://www.franklin.ma.us/town/youth/Youth.htm">http://www.franklin.ma.us/town/youth/Youth.htm</a>	Youth and family oriented support programs that utilize trained volunteers from the community to develop and run. Services include game rooms, meeting conference rooms, youth lounge, computer center, & kitchen area.	Youth and family	No rental fees for non-profits
<b>Bainbridge Island Senior Community Center (BISCC)</b> Bainbridge Island, WA (206) 842-1616 <a href="http://www.bainbridgeseniors.org/">http://www.bainbridgeseniors.org/</a>	Offers education, exercise, fellowship, and recreation.	Seniors	Fundraising, fees, long-term lease with City
<b>Tempe Westside Multi-Generational Center</b> Tempe, AZ 480-858-2400 <a href="http://www.tempe.gov/westside/">http://www.tempe.gov/westside/</a>	31,000 square foot facility with indoor gym, youth center (pool table and games), Teen Center (computers, games), Adult fitness area, library resource center, classrooms, retiree activity center.	Multi-generational	unknown
<b>Deer Valley Community Center</b> Phoenix, AZ 602-534-2383 <a href="http://www.ci.phoenix.az.us/PRL/dvcc.html#A">http://www.ci.phoenix.az.us/PRL/dvcc.html#A</a>	Classes, health services, sports, game room, lending library.	Multi-generational	unknown

**Table 5-2**

Survey of Mainland Community Center Uses/Activities, Target Population, and Fees

**'AIEA TOWN CENTER MASTER PLAN**

**City and County of Honolulu**

<b>Proposed Use</b>	<b>Reason for inclusion in Town Center</b>	<b>Income Generating</b>
Daycare Center	Emphasizes multigenerational theme	yes
Meeting Rooms (classes, etc)	Versatile and can accommodate many users	yes
Thrift Store	Volunteer opportunities	yes
Art Center	Compatible with daycare and meeting rooms	yes
Coffee Shop/Snack Shop	Provides services to visitors of the Center	yes
Open Market (farmer's market/craft fair)	Incorporates Old Community Center theme	yes
Outdoor Performance Area	Supports Old Community Center theme	yes
Outdoor Volleyball Court	Supports Multi-generational and Our Backyard/Front Porch themes	no
Gate Ball	Supports Multi-generational and Our Backyard/Front Porch themes	no
Picnic Areas with Barbeque Pits	Supports Multi-generational and Our Backyard/Front Porch themes	no
"Hanging out" (sitting, reading, etc)	Supports Multi-generational, Our Backyard/Front Porch, and Old Community Center themes	no

**Table 5-3**  
Proposed Uses for 'Aiea Town Center

**5.3.2 Indoor Activities**

Several indoor uses are recommended for the Town Center. The configuration of the Town Center contains over 20,000 square feet of meeting and general function space.

Daycare Center: The daycare center will bring children to the area during the weekday, enhancing the multi-generational aspect of the Town Center. A daycare facility will also take advantage of the close proximity of the library. If at the time of implementation, there is insufficient community need for a daycare center, the space could be used for an adult daycare facility.

Meeting Rooms: Another area of the Town Center should include a meeting room facility. These rooms can be used for multiple educational programs for all ages. For example, lessons could include hula, karate, judo and dancing. These rooms could be

## **'AIEA TOWN CENTER MASTER PLAN**

### **City and County of Honolulu**

used as dressing rooms when a performance is being held. In addition, the rooms could serve as meeting places for various community groups and organizations such as the 'Aiea Community Association. These rooms could also be used for health and wellness programs such as blood pressure or diabetes screenings.

Thrift Store: A community thrift store would provide volunteer opportunities for community members, and would also draw people to the Town Center. Thrift stores have been successful and compatible uses in other community centers on O'ahu.

Art center: The art center would include an arts and crafts room and storage area. A wide variety of arts or craft classes could be provided to children attending the daycare center, or after-school programs, seniors living nearby or at the senior center, and adults from the community. In addition, senior programs could be offered to residents of the senior facility.

Coffee shop/snack shop: A small concession stand selling coffee and other take-out food items is also a recommended use. This shop would provide amenities to visitors of the library and Town Center. Patrons of the shop could eat and drink coffee on the lanais or in the lawn areas.

#### **5.4 MANAGEMENT OF 'AIEA TOWN CENTER**

A non-profit 501-c(3) corporation should be formed to manage the 'Aiea Town Center. The non-profit corporation would be responsible for the overall coordination and maintenance of the facility. The non-profit corporation could also organize community events at the Town Center.

#### **5.5 ECONOMIC SUSTAINABILITY**

Table 5.1 summarizes several different types of community centers. Each center has developed different strategies for economic sustainability including charging membership dues, operating thrift shops, and charging fees for services. The operating funds of four different centers are described below:

- Key Project: This organization receives approximately 60 % of its funding from the Aloha United Way. Private grants from foundations such as the Atherton Foundation provide additional operating funds and up to \$40,000 per year is generated by renting out the facility to groups for special events.
- Waialua Community Association: This association has a total operating budget of \$57,537. 67 % of the operating funds come from facility rental fees and 26 % from private foundations.
- Lanakila Multi-Purpose Senior Center: The operating budget for Lanakila Multi-Purpose Senior Center is over \$197,000. The majority of the funding, 63 %, comes

## **'AIEA TOWN CENTER MASTER PLAN**

### **City and County of Honolulu**

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from Federal, State, or City contracts. 25 % of the funds are generated by fundraising activities and membership dues generate 5 % of the total operating funds.

- **Mō'ili'ili Community Center:** This community center has \$1,016,000 in operating funds. Fees for classes and other services generate 55 % of these funds. Facility rental fees account for 13 % of the operating budget and Federal, State, or City Contracts generate another 11 %. Less than 10 % of the Mō'ili'ili Community Center's budget comes from the Aloha United Way and 5 % comes from thrift shop revenues.

The 'Aiea Town Center will share some elements with these other community centers but the overall character of the Center and mix of uses will be unique. As a result, the Town Center should develop its own model of economic sustainability. Several of the proposed uses for the 'Aiea Town Center will generate income for operating expenses. These income-generating uses, which are identified in Table 5-3, include the thrift shop, daycare center, meeting rooms, art center, coffee shop, and open markets. The administrator of the Town Center may also write for grants to support other Town Center programs.

Section 6.0

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Priorities and Implementation

**'AIEA TOWN CENTER DRAFT MASTER PLAN**

City and County of Honolulu

**6.0 PRIORITIES AND IMPLEMENTATION**

**6.1 'AIEA TOWN CENTER**

The recommend improvements are proposed to be completed in three phases: the interim park, Phase I, and Phase II. The total cost of the improvements are estimated to be slightly over \$6 million. Priorities for implementation phasing are summarized in Table 6-1.

<b>Interim Park Plan – Within 1-2 years</b>	<b>Estimated Cost</b>
Demolition and Site Work	\$250,000
Landscaping / Irrigation / Gravel Parking Area	\$206,000
<b>Total Interim Park</b>	<b>\$456,000</b>
<b>Phase I – Within 3-4 years</b>	<b>Estimated Cost</b>
Site Work	\$290,000
Parking and Drop-off Areas	\$750,000
Community Center	\$1,260,000
Meeting Rooms	\$960,000
Covered Walkways	\$190,000
Portion of Malls	\$455,000
Plaza	\$60,000
Landscaping	\$400,000
<b>Total Phase I Projects</b>	<b>\$4,365,000</b>
<b>Phase II – Within 5-6 years</b>	<b>Estimated Cost</b>
Daycare Center	\$975,000
Covered Walk	\$45,000
Portions of Mall	\$85,000
Landscaping	\$110,000
<b>Total Phase II Projects</b>	<b>\$1,215,000</b>
<b>Total Estimated Costs</b>	<b>\$6,036,000</b>

**Figure 6-1**

'Aiea Town Center Phasing and Costs



**'AIEA TOWN CENTER DRAFT MASTER PLAN**  
**City and County of Honolulu**

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**6.2 LIBRARY AND SENIOR FACILITY**

The State of Hawai'i will be responsible for the acquiring the land, designing and building the library. However, the State is not currently interested in building a library on the property.

The City will purchase the land for the senior facility and issue an RFP for the senior facility development. The RFP guidelines for the senior facility should be based on the design guidelines provided in Section 4.3.3.

**6.3 ZONING CHANGES**

In order to build 'Aiea Town Center the following government approvals and/or permits are required:

- Primary Urban Center Development Plan Land Use Map Amendment – from the City Department of Planning and Permitting and Planning Commission
- Environmental Assessment – The Accepting agency is the City Department of Design and Construction
- Zone change – City Department of Planning and Permitting, City Council

The project site is designated industrial on the Primary Urban Center Plan Land Use Map currently under review (Primary Urban Center Plan, July 1999). The designation should be changed to residential and commercial/neighborhood commercial and a government symbol should be placed on the library parcel.

The entire site is currently zone I-2 Industrial. Based on recommendations from the Department of Planning and Permitting, the recommended zoning for the Town Center and library areas is B-1. The senior facility recommended zoning is A-1.

Parcel 15 of the 'Aiea sugar mill site is also zoned I-2. The 'Aiea Stream flows through the undeveloped parcel, which along with the steep slopes, makes it incompatible for intensive development. The parcel should be designed A-1 and low-density housing should be developed. A designated landscape easement along the stream should be instituted to preserve the greenbelt area as a recreational feature.

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Section 7.0  
References

**'AIEA TOWN CENTER MASTER PLAN**

**City and County of Honolulu**

**7.0 REFERENCES**

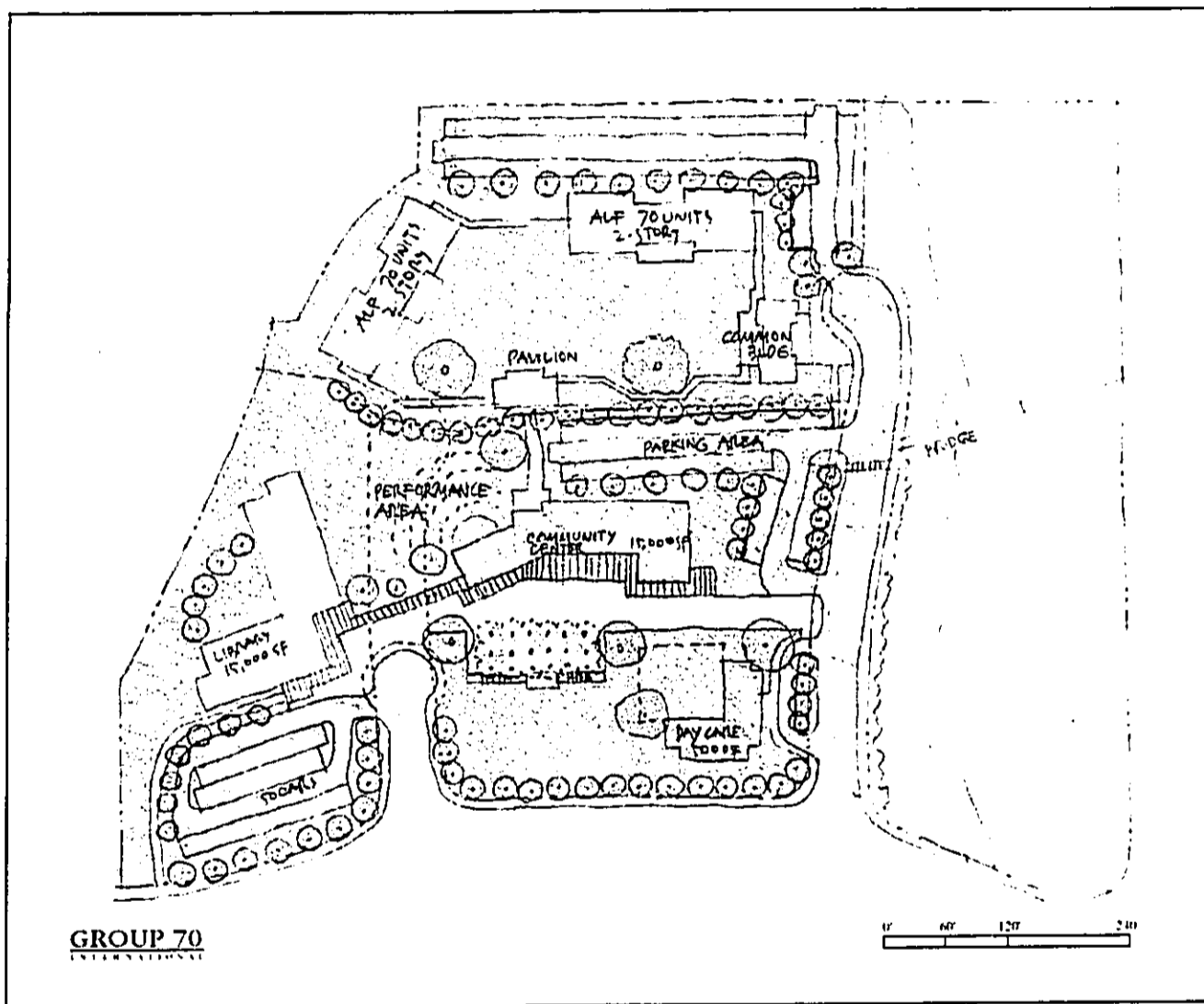
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Appendix A  

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Alternative Design Concept

**'AIEA TOWN CENTER MASTER PLAN**  
**City and County of Honolulu**



**Figure A-1**  
**'Aiea Town Center Alternative Design Scheme**

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Appendix B  
Charrette Participants

**'AIEA TOWN CENTER MASTER PLAN**

**City and County of Honolulu**

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**Community Charrette Participants**

April and August, 2001

Project Champions

Gary Okino, City Council

Claire Tamamoto

Task Force Members

Bonnie Arakawa

Dave Arakawa

Earline Funakoshi

Alko Guerin

Denise Haverty

Fray Heath

Tom Herman

Wesley Ho

Wade Kagawa

Molly Kihara

Tracy Kubota

Kimberly Mills

June Nakamura

Sandy Peitzer

Sandra Thompson

Polly Yoder

Rene Yoshida

State Representatives

Blake Oshiro

City and County of Honolulu

Terry Hildrebrand

Brian Suzuki

Group 70

Francis Oda

Roy Nihei

Jeffrey Overton

Megan York

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Appendix B

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Pre-Consultation Period Comments and Responses



BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

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

In reply, please refer to:  
File:

01-155/epo

December 26, 2001

RECEIVED  
DEC 28 2001  
GROUP 70

Mr. Jeffrey H. Overton, AICP  
Chief Environmental Planner  
Group 70 International Inc.  
925 Bethel Street  
Honolulu, Hawaii 96813-4304

Dear Mr. Overton:

Subject: Pre-Consultation for Environmental Assessment (PEA)  
Aiea Town Center Master Plan  
Tax Map Key: 9-9-77: 7 through 14

Thank you for the opportunity to review and comment on the subject PEA. The PEA was routed to the various branches of the Environmental Health Administration. We have the following comments:

Solid and Hazardous Waste Branch (SHWB)

You must notify the SHWB prior to any Underground Storage Tanks (UST) removal or installation. The removal and installation of UST must comply with existing State, Federal, and City & County Fire Department regulations. The Department of Health has adopted new UST rules requiring a permit for all regulated UST installed after January 28, 2000. For more information contact the SHWB at (808) 586-4226.

Clean Air Branch (CAB)

Due to the location of the project, the development and construction activities would impact neighboring residential areas, businesses, and thoroughfares. It is recommended that a dust control management plan be developed which identifies and addresses activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of development and construction activities of the project is required.

Mr. Jeffrey H. Overton, AICP  
December 26, 2001  
Page 2

Construction activities must comply with provisions of Hawaii Administrative Rules, Section 11-60.1-33 on Fugitive Dust. The contractor should provide adequate measures to control dust from the road areas and during the various phases of construction. These measures include, but are not limited to:

- a. Planning the different phases of construction, focusing on minimizing the amount of dust generating materials and activities, centralizing on-site vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;
- b. Providing an adequate water source at the site prior to start up of construction activities;
- c. Landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;
- d. Controlling of dust from shoulders and access roads;
- e. Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and
- f. Controlling of dust from debris being hauled away from project site.

If you have any questions please contact the Clean Air Branch at (808) 586-4200.

Noise, Radiation and Indoor Air Quality (NRFAQ) Branch

It is advised that all project activities shall comply with the Administrative Rules of the Department of Health, Chapter 11-39 on Air Conditioning and Ventilating, and Chapter 11-46 on Community Noise Control.

If you have any questions, please contact the NRFAQ Branch at (808) 586-4701.

Sincerely,



GARY GILL  
Deputy Director  
Environmental Health Administration

c: SHWB  
CAB  
NRFAQ



Francis S. Oda, Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
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Christine M. Ructolo, AICP  
Norma J. Scott  
Scott Tangonan  
Sharon Ching Williams, AIA

May 29, 2002

Mr. Gary Gill, Deputy Director  
Environmental Health Administration  
Department of Health  
State of Hawai'i  
P.O. Box 3378  
Honolulu, HI 96801

Dear Mr. Gill:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your December 26, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).


We have prepared the following responses to your comments:

1. Underground Storage Tanks (UST) – Clayton Group Services (October 22, 2001) reported that a UST was removed from the subsurface of Parcel 10. There are no plans to install a UST.
2. Fugitive Dust – A dust control management plan will be developed which identifies and addresses activities that have a potential to generate fugitive dust. Construction activities will comply with provisions of Hawai'i Administrative Rules, Section 11-60.1-33 on Fugitive Dust.
3. Noise – Project activities will comply with the Administrative Rules of the Department of Health, Chapter 11-39 on Air Conditioning and Ventilating, and Chapter 11-46 on Community Noise Control.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

  
Jeffrey H. Overton, AICP  
Chief Environmental Planner

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED  
DEC 3 2001

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

DEPUTIES  
JANET E. KAWELO  
LINNEL HISHIUKA

GROUP 70

HISTORIC PRESERVATION DIVISION  
Kakuhikawa Building, Room 555  
601 Kamokila Boulevard  
Kapolei, Hawaii 96707

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

November 20, 2001

Jeffrey H. Overton, AICP  
Chief Environmental Planner  
Group 70 International Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813

LOG NO: 28617 ✓  
DOC NO: 0111EJ18

Dear Mr. Overton:

**SUBJECT: Chapter 6E-8 Historic Preservation Review - City and County of Honolulu Department of Design and Construction and the Aiea Community : Aiea Town Center Master Plan- Pre-Consultation for Environmental Assessment  
Aiea, `Ewa, O`ahu  
TMK: 9-9-077: 007 through 014**

Thank you for the opportunity to provide comment during the pre-consultation EA phase of the Aiea Town Center Master Plan. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the subject parcel. Formerly, the historic Aiea Sugar Mill (SIHP NO. 50-80-09-9786) occupied portions of this parcel before it was demolished. As a result the subject parcel, part of the former sugar mill operations, has been extensively modified through industrial use; Aiea Stream has also been greatly altered by the installation of a concrete channel along its entire length on the property. Consequently, it is unlikely that significant historic sites are still present on the subject parcels. Therefore, we believe that proposed development of the Aiea Town Center, the Library and a senior housing facility will have "no effect" on significant historic sites.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

Don Hibbard, Administrator  
State Historic Preservation Division

EJ:jk



May 29, 2002

Francis S. Oda, Arch D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Hashimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Mr. Don Hibbard, Administrator  
State Historic Preservation Division  
Department of Land and Natural Resources  
Kakuhihewa Building, Room 555  
601 Kamokila Boulevard  
Kapolei, HI 96707

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDT  
Philip T. Cuccia  
Sitobin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jew, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Frank B. McCue  
Kyle N. Nishimoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Ruotola, AICP  
Norma J. Scott  
Scott Tangonan  
Sharon Ching Williams, AIA

Dear Mr. Hibbard:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your November 20, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We acknowledge your comment that the proposed development of the 'Aiea Town Center, the library, and the senior housing facility will have "no effect" on significant historic sites.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

BENJAMIN J. CAYETANO  
GOVERNOR



GENEVIEVE SALMONSON  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4188

November 27, 2001

Mr. Jeffrey Overton  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, HI 96813

SUBJECT: 'Aiea Town Center Master Plan  
Pre-consultation for Environmental Assessment

Dear Mr. Overton,

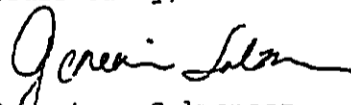
We have reviewed the description of the subject project provided by your letter dated November 8, 2001.

The assessment should address the cumulative impacts the library and senior housing facility will have on the project. The surrounding neighborhood should be consulted.

We have no other comments to offer at this time, but will reserve further comments when the documents are submitted.

Should you have any questions, please feel free to call our office at 586-4185.

Yours truly,

  
Genevieve Salmonson  
Director



GROUP 70

May 29, 2002

Ms. Genevieve Salmonson, Director  
Office of Environmental Quality Control  
State of Hawai'i  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813

Dear Ms. Salmonson:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your November 27, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We have prepared the following responses to your comments:

1. Cumulative Impacts - The Draft EA will address the cumulative impacts the Town Center, library, senior housing facility, greenbelt and single-family housing development will have on the neighborhood.
2. Notification of Neighbors - Several public meetings have been held with community members. In February 2001, meeting notices were mailed to 365 'Aiea community members inviting residents to a planning meeting. During that meeting, a community task force was formed that met two more times as part of the community planning "charrette" process. The 'Aiea Town Center Master Plan was presented at the November meeting of the 'Aiea Neighborhood Board and at the December meeting of the 'Aiea/Pearl City Vision Team.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

- Francis S. Oda, Arch. D., AIA, AICP
- Norman GY Hong, AIA
- Sheryl B. Scaman, AIA, ASID
- Hitoshi Hida, AIA
- Roy H. Nihei, AIA, CSI
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- Kathryn A. Nam
- Jeffrey H. Overton, AICP
- Christine M. Ruotola, AICP
- Norma J. Scott
- Scott Tangonan
- Sharon Ching Williams, AIA



RECEIVED  
DEC 26 2001

December 17, 2001

Mr. Jeffrey Overton  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813

GROUP 70

Dear Mr. Overton:

Aiea/Pearl City Community Vision Project : *Aiea Town Center Master Plan*  
Pre-Consultation for Environmental Assessment

The Aiea Town Center Task Force Committee has reviewed the draft Master Plan and offers the following comments:

#### SITE ANALYSIS

Site analysis needs to be expanded. Plans should include an assessment of the existing views and vistas, location of other public facilities (including the existing public library), and zoning district information.

The analysis should include traffic information, including discussion of the pedestrian and vehicular patterns between schools and other public facilities, the residential areas and commercial establishments, to better explain the patterns of movement around and to the project site.

#### TOWN CENTER COMPONENTS

- User Mix: The Town Center must be self-sustaining; it should have a vibrant and active mix of activities, uses and tenants, in order to attract many people. The Plan notes that eight community and recreation centers on Oahu were reviewed, however, it should include recommendations for tenant/user mix based on research of mainland and other Hawaii town centers that have proven to be successful in being self-sustaining and/or profitable.

The Committee believes that such a request was made earlier, however such recommendations are not provided in the Plan.



- **Amphitheater:** The Amphitheatre component and the "wall with windows" concept needs to be studied further. The types of activities and performances should determine the program requirements for staging areas, dressing rooms, equipment rooms, etc. In lieu of the proposed "storefront" facade fronting a grassy amphitheater, the consultant should consider an open-air dance/performance pavilion that is designed in context with the rest of the complex.
- **Library:** The Plan should provide some background on the proposed relocation of the public library to the Town Center site. It should further emphasize the important role, community benefits and advantages of the public library component at the Town Center.
- **Senior Residential:** The Plan should briefly discuss the correlation and advantages of a senior residential facility at the Town Center.
- **On-Site Circulation:** As open markets, fairs and performances are proposed activities, the Plan should conceptually accommodate loading/unloading functions.

#### STREETSCAPE

Halewiliko Street and the approach to the project site from Aiea Heights Drive should be designed in conformance with the urban design concepts of the draft Livable Communities Plan, which suggests there be a strong physical connection (consistency in street trees, etc.) between the town's commercial core at the base of Aiea Heights Drive and the proposed Town Center. The T-intersection of Aiea Heights Drive and Halewiliko Street should be considered and designed as an announcement of one's arrival to the "old plantation village" area and Town Center.

#### INTERIM PARK

The Plan should expand on the anticipated uses of the park. The proposed uses will determine the parking needs and requirements. It may be determined that on-street parking would be sufficient, which would allow for maximum usable park area.

#### SURROUNDING AREAS

The Committee supports the Plan's recommendation to rezone the Kulawea Street lot from Industrial. However, the Plan should note that low-density residential fronting Kulawea Street would also be an appropriate component.

Mr. Jeffrey Overton  
Page 3

The Committee prefers to keep Aiea Stream in its natural state. While the stream is located outside the boundaries of the subject property, the community's desire to retain and enhance this natural and park-like character should be noted in the Plan. An integrated walkway system along Aiea Stream should be proposed, with connections to the Town Center walkway system.

#### HAZARDOUS MATERIAL REMEDIATION

It is our understanding that Bank of Hawaii (BOH) wants the consultant and the City to "lock-in" on a Master Plan for the Town Center since one of BOH's remediation alternatives is to provide insurance or bonding for future improvements that may require further remediation (digging building footings, utility trenching, etc.). On the other hand, the City and the community know that master plans often change, and it is very likely that in the future, the developed area will be different and possibly larger than what will be outlined in the original Master Plan. Thus, Group 70 should err on the conservative "larger" side, to account for future additions. Planning and designing for larger structures, etc. would give the community and the City some flexibility to change designs, and will help generate a reasonable request for remediation costs from BOH.

In the alternative, the project should be taken to the next level of design, where architectural site plans and preliminary floor plans based on programmatic requirements are developed. While this appears to be the "safer" route, it requires a certain level of commitment by the community and the City to agreed-upon uses.

The Committee looks forward to working with Group 70 and the City to develop and refine the project ideas and design, and successfully move toward implementation of the project.

Sincerely,



Claire J. Tamamoto  
CVG Project Champion

cc: Dept. of Design and Construction  
Breene Harimoto, City Facilitator



GROUP 70

May 29, 2002

Ms. Claire Tamamoto, CVG Project Champion  
'Aiea/Pearl City Community Vision Team  
99-210 Hailimanu Place  
'Aiea, HI 96701

Francis S. Oda, Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Scaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Iihel, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Dear Ms. Tamamoto:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for Environmental Assessment

Thank you for your December 17, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We have prepared the following responses to your comments:

1. Site Analysis – The Draft EA and Master Plan will include information on current zoning district information and rezoning and/or development plan proposals. Information will also be provided on existing views and vistas, public facilities, and travel patterns.
2. Town Center User Mix – An overview of different community centers in Hawai'i and on the mainland is provided in the Master Plan. However, the 'Aiea Town Center is a unique and groundbreaking project and there are few models that are comparable to the Town Center. Most Centers are either traditional community centers such as the YMCA, or social service providers such as the KEY Project, or projects comprised of mixed residential, retail, office, entertainment, and civic uses.

A wide variety of activities are discussed in the review of community centers. Each community center has a different mix of activities based on the community need and other community resources. The activities suggested in the Master Plan are a starting point. The library, daycare center, and senior housing facility will provide a critical mass of people in the area. Local community groups will need to be contacted to determine exactly how they will utilize the center for classes and community events.

The community centers surveyed rely on small revenues generated from thrift shops, fundraising activities, nominal fees, and private and public grants. In order to be self-sustaining, the 'Aiea Town Center will require a capable development director to apply for grants to fund the Center's activities.

George I. Atte, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDT  
Philip T. Cuccia  
Sutobin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
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Dean H. Kitamura  
Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Nan  
Jeffrey H. Overton, AICP  
Christine M. Rucicola, AICP  
Norma J. Scott  
Scott Tangonan  
Sharon Ching Williams, AIA

3. Performance Area – The Master Plan includes a performance area located on the northwest corner of the Town Center. The exact design of the performance area will be determined during the design phase of the project. An amphitheater is not being considered because significant grading would be required.

Adequate storage areas for the performance area will be provided in the Community Center and Meeting Room buildings. The meeting rooms can also serve as dressing rooms during performances.

4. Library – The Master Plan and Draft EA will include background information on the proposed relocation of the library. The advantages of locating the library at the Town Center will also be discussed.
5. Senior Housing Facility – Advantages to locating the senior facility at the Town Center location will be discussed.
6. Loading Zones – During off-hours, the drop-off area and the parking lots will be used as loading and unloading zones.
7. Interim Park – The interim park will be used for passive recreation and occasional community events such as farmers markets, community festivals, and craft fairs. The gravel parking area will provide parking for these large community events.
8. Streetscape – According to Rodney Funakoshi of Wilson Okamoto & Associates, Inc, the draft Livable Communities Plan is not available for review. Without this plan, it is difficult to provide specific recommendations regarding the visual and physical connection between the lower commercial core and the Town Center area.

Streetscape design along the project frontage will be in keeping with the character established for the Town Center creating an entrance or gateway statement, including appropriate signage and landscaping. When motorists and pedestrians approach the 'Aiea Town Center from 'Aiea Heights Drive, the library will be the most visible structure and it should be the landmark for the community. The library parking lot that fronts Halewiliko Street will be landscaped appropriately to provide an attractive streetscape. Town Center signage should also be developed.

9. Surrounding Areas – The Master Plan and Draft EA will recommend that the area around the 'Aiea Stream in Parcel 6 remain in a natural state and be rezoned P-2. Housing should be developed in the remainder of the parcel. However, the extent of hazardous materials in the area would

Letter to Ms. Claire Tamamoto  
Aiea/Pearl City Vision Team  
City and County of Honolulu  
May 29, 2002  
page 3

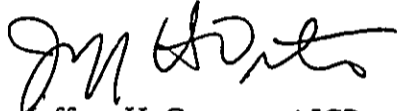
need to be thoroughly studied prior to any such development. The design scheme will be amended to reflect these recommendations.

10. Hazardous Waste Remediation – Architects are taking a conservative approach when delineating the location and size of future buildings and utilities. The architects are currently developing preliminary floor plans based on consultation with the City and the community.

Your letter and this response will be included in the Draft Environmental Assessment.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



Jeffrey H. Overton, AICP  
Chief Environmental Planner

**BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman  
CHARLES A. STED, Vice-Chairman  
JAN M.L.Y. AMII  
HERBERT S.K. KAOPUA, SR.  
BARBARA KIM STANTON

BRIAN K. MINAII, Ex-Officio  
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE  
Manager and Chief Engineer

November 26, 2001

Group 70 International, Inc.  
925 Bethel Street, 5th Floor  
Honolulu, Hawaii 96813

Attention: Mr. Jeffrey H. Overton

Gentlemen:

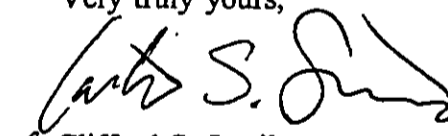
Subject: Your Transmittal of November 8, 2001 of the  
Pre-Assessment Consultation Notice for the Aiea  
Town Center Master Plan, Aiea, TMK: 9-9-77: 07 to 014

Thank you for the opportunity to review and comment on the subject document for the proposed community redevelopment project.

We have no objections to the proposed project. We reserve further comment until the Draft Environmental Assessment is submitted for our review and comment.

If you have any questions, please contact Scot Muraoka at 527-5245.

Very truly yours,

  
for Clifford S. Jamile  
Manager and Chief Engineer



May 29, 2002

Francis S. Oda, Arch. D., AIA, AICP  
 Norman GY Hong, AIA  
 Sheryl B. Seaman, AIA, ASID  
 Hitoshi Hida, AIA  
 Roy H. Nihel, AIA, CSI  
 James I. Nishimura, AIA  
 Ralph E. Portmore, AICP  
 Stephen H. Yuen, AIA  
 Linda C. Miki, AIA

Mr. Clifford S. Jamile, Manager and Chief Engineer  
 Board of Water Supply  
 City and County of Honolulu  
 630 South Beretania Street  
 Honolulu, HI 96843

Dear Mr. Jamile:

Subject: 'Aiea Town Center Master Plan  
 Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your November 26, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We acknowledge your comment that you have no objectives to the proposed project at this time.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

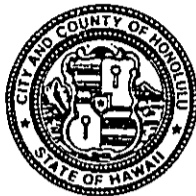
Jeffrey H. Overton, AICP  
 Chief Environmental Planner

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 Kathryn A. Nam  
 Jeffrey H. Overton, AICP  
 Christine M. Ruotola, AICP  
 Norma J. Scott  
 Scott Tangonan  
 Sharon Ching Williams, AIA

FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

3375 KOAPAKA STREET, SUITE H425 • HONOLULU, HAWAII 96819-1869  
TELEPHONE: (808) 831-7761 • FAX: (808) 831-7750 • INTERNET: [www.cc.honolulu.hi.us](http://www.cc.honolulu.hi.us)

JEREMY HARRIS  
MAYOR



ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

November 28, 2001

RECEIVED  
DEC 5 2001  
GROUP 70

Mr. Jeffrey H. Overton, AICP  
Chief Environmental Planner  
Group 70 International, Inc.  
925 Bethel Street, Fifth Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:

Subject: Aiea Town Center Master Plan  
Pre-Consultation for Environmental Assessment

We received your letter dated November 8, 2001, requesting our comments on the scope and context of the draft Environmental Assessment of the Aiea Town Center Master Plan.

The Honolulu Fire Department (HFD) requests that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.
2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000 pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.

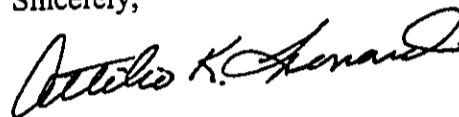


Mr. Jeffrey H. Overton, AICP  
Page 2  
November 28, 2001

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

Sincerely,



ATTILIO K. LEONARDI  
Fire Chief

AKL/SK:jo



Francis S. Oda, Arch. D., AIA, AICP  
 Norman GY. Horig, AIA  
 Sheryl B. Seaman, AIA, ASID  
 Hitoshi Hida, AIA  
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 Christine M. Ructola, AICP  
 Norma J. Scott  
 Scott Tangonan  
 Sharon Ching Williams, AIA

May 29, 2002

Mr. Attilio K. Leonardi, Fire Chief  
 Fire Department  
 City and County of Honolulu  
 3375 Koapaka Street, Suite H425  
 Honolulu, HI 96819-1869

Dear Mr. Leonardi:

Subject: 'Aiea Town Center Master Plan  
 Pre-Consultation for the Draft Environmental Assessment

Thank you for your November 28, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We have prepared the following responses to your comments:

1. Private Water System – The water system design will ensure that appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.
2. Fire Department Access – The proposed improvements will conform to Fire Department guidelines regarding access roads.
3. Approval of Civil Drawings - Civil drawings will be submitted to the Honolulu Fire Department for review and approval during the design review phase.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

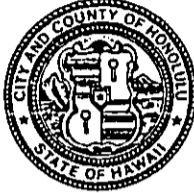
Sincerely,

GROUP 70 INTERNATIONAL, INC.

  
 Jeffrey H. Overton, AICP  
 Chief Environmental Planner

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us



JEREMY HARRIS  
MAYOR

RANDALL K. FUJIKI, AIA  
DIRECTOR

LORETTA K.C. CHEE  
DEPUTY DIRECTOR

2001/ELOG-4453(BA)

December 18, 2001

Mr. Jeffrey Overton  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Overton:

Pre-Consultation for Environmental Assessment  
Aiea Town Center - Aiea

The Department of Planning and Permitting (DPP) appreciates the opportunity to review the proposed Master Plan for Aiea Town Center.

As you may be aware, the DPP and the Aiea/Pearl City Community Vision Group (CVG) are in the process of developing a Livable Communities Plan, which includes the project area. It is our understanding that the CVG has been provided the opportunity to review and comment on this proposal. Otherwise, please coordinate this review through the project consultant, Wilson Okamoto & Associates.

The tax map key for the project site should be corrected to Plat 5. Also, it is our understanding that the City is purchasing Lot 6 in addition to the 3.43-acre site (page 3-3).

In addition, we offer the following comments:

**Land Use and Zoning**

**SITE ANALYSIS.** Site analysis should provide information on current zoning district information and recent or current rezoning and/or development plan proposals.

It should include identification of the existing views and vistas, public facilities, and describe existing travel patterns around the project area.

Mr. Jeffrey Overton  
Group 70 International, Inc.  
Page 2  
December 18, 2001

**TOWN CENTER USER MIX.** The Town Center should have a vibrant, active and profitable mix of tenants and the Master Plan should reflect the tenant spaces and amenities that support such a mix. The Plan should include recommendations for tenant/user mix based on research of other mainland and Hawaii town centers that have proven to be successful.

The Plan should also better define the proposed Art Center and its major activities.

**INTERIM PARK.** As the planning and design of the proposed Interim Park is a part of this projects scope, it should be noted in the Introduction. The landscape design for the park should consider the layout of the future town center structures and its landscaping, to minimize tree relocation or removal.

**APPROACH.** Consideration should be given to the streetscape design of Halewiliko Street and the pedestrian and motorist approach to the project site from Aiea Heights Drive. The draft Livable Communities Plan discusses the revitalization of Aiea's town (commercial) core, and emphasizes the need for a visual and physical connection between the lower commercial area (below the freeway) and the *mauka* Town Center area. The intersecting of Aiea Heights Drive with Halewiliko Street should be sensitively treated as a gateway or announcement of an entry to the old plantation village and Town Center.

**SURROUNDING AREAS.** Figure 1-1 should illustrate and label the adjoining streets and neighboring uses.

While the Plan recommends P-2 zoning for the Kulawea Street parcel, it should also consider low-density residential along Kulawea Street, which would be compatible to the existing adjacent single-family residential neighborhood.

How is the Pedestrian access from Aiea Intermediate being accommodated? In addition to the access, the Plan should include a recommendation for a greenbelt system along Aiea Stream. The Plan should address how the proposed Town Center and Interim Park site plans would physically and visually relate and transition to this site.

#### **Civil Engineering**


The EA should describe the existing and proposed infrastructure requirements, including drainage, traffic and sewer.

Mr. Jeffrey Overton  
Group 70 International, Inc.  
Page 3  
December 18, 2001

Should you have any questions, please feel free to contact Bonnie Arakawa of my staff at 527-5837.

Sincerely yours,



 RANDALL K. FUJIKI, AIA  
Director of Planning and Permitting

RKF:  
doc128256

cc: DDC



GROUP 70

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDT  
Philip T. Cuccia  
Sutobin Hahn  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Nani  
Jeffrey H. Overton, AICP  
Christine M. Riutola, AICP  
Norma J. Scott  
Scott Tangonan  
Sharon Ching Williams, AIA

May 29, 2002

Mr. Randall K. Fujiki, AIA, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Attn: Bonnie Arakawa

Dear Mr. Fujiki:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your December 18, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We have prepared the following responses to your comments:

1. Tax Map Key – The correct tax map key number will be provided in the Draft EA and Master Plan. In addition, the EA and Master Plan will reflect that the City is also purchasing Lot 6.
2. Site Analysis – The Draft EA and the Master Plan will include information on current zoning district information and rezoning and/or development plan proposals. Information will also be provided on existing views and vistas, public facilities, and travel patterns.
3. Town Center User Mix – An overview of different community centers in Hawai'i and on the mainland is provided in the Master Plan. However, the 'Aiea Town Center is a unique and groundbreaking project and there are few models that are comparable to the Town Center. Most Centers are either traditional community centers such as the YMCA, or social service providers such as the KEY Project, or projects comprised of mixed residential, retail, office, entertainment, and civic uses.

A wide variety of activities are discussed in the review of community centers. Each community center has a different mix of activities based on the community need and other community resources. The activities suggested in the Master Plan are a starting point. The library, daycare center, and senior housing facility will provide a critical mass of people in

Letter to Mr. Randall K. Fujiki, AIA, Director  
Department of Planning and Permitting  
City and County of Honolulu  
May 29, 2002  
page 2

the area. Local community groups will need to be contacted to determine exactly how they will utilize the center for classes and community events.

The community centers surveyed rely on small revenues generated from thrift shops, fundraising activities, nominal fees, and private and public grants. In order to be self-sustaining, the 'Aiea Town Center will require a capable development director to apply for grants to fund the Center's activities.

The art center will include an arts and crafts room and storage area. A wide variety of arts or craft classes could be provided to children attending the daycare center and after-school programs, seniors, and adults.

4. Interim Park – The introduction of the Master Plan will include a description of the Interim Park plan. Landscaping and other improvements associated with the Interim Park will be designed in conjunction with the layout of the Town Center.
5. Approach – According to Rodney Funakoshi of Wilson Okamoto & Associates, Inc, the draft Livable Communities Plan is not available for review. Without this plan, it is difficult to provide specific recommendations regarding the visual and physical connection between the lower commercial core and the Town Center area.

Streetscape design along the project frontage will be in keeping with the character established for the Town Center creating an entrance or gateway statement, including appropriate signage and landscaping. When motorists and pedestrians approach the 'Aiea Town Center from 'Aiea Heights Drive, the library will be the most visible structure and it will be the landmark for the community. The library parking lot fronting Halewiliko Street will be landscaped appropriately to provide an attractive streetscape. Town Center signage should also be developed.

6. Surrounding Areas – The conceptual plan will include adjoining streets and neighboring uses. The Plan will recommend that the area around the 'Aiea Stream in Parcel 6 remain in a natural state and be rezoned P-2. Low-density residential development will be recommended for the remainder of the parcel. However, the extent of hazardous materials in the area would need to be thoroughly studied prior to any such development.

Pedestrian access from 'Aiea Intermediate School will be provided by a path across the northern portion of Parcel 6. This path will cross 'Aiea Stream and a bridge will need to be constructed.

The design scheme will be amended to reflect these recommendations.

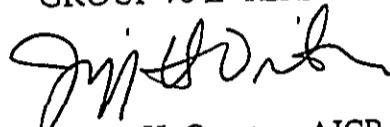
Letter to Mr. Randall K. Fujiki, AIA, Director  
Department of Planning and Permitting  
City and County of Honolulu  
May 29, 2002  
page 2

7. Civil Engineering - The EA will describe existing and preliminary infrastructure improvements, including drainage, roadways, water and sewer. A traffic study has also been completed for the project.

Your letter and this response will be included in the Draft EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



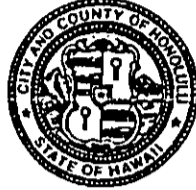
Jeffrey H. Overton, AICP  
Chief Environmental Planner



DEPARTMENT OF PARKS AND RECREATION  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET, 10TH FLOOR • HONOLULU, HAWAII 96813  
PHONE: (808) 523-4182 • FAX: 527-5725 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS  
MAYOR



WILLIAM D. BALFOUR, JR.  
DIRECTOR

EDWARD T. "SKIPPA" DIAZ  
DEPUTY DIRECTOR

November 16, 2001

Mr. Jeffrey H. Overton, AICP  
Chief Environmental Planner  
Group 70 International, Inc.  
925 Bethel Street, 5th Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:


Subject: Aiea Town Center Master Plan  
Pre-Consultation Draft Environmental Assessment

Thank you for the opportunity to comment on the pre-consultation of the Draft Environmental Assessment for the Aiea Town Center Master Plan.

The Department of Parks and Recreation supports the redevelopment of the Aiea sugar mill site, as proposed.

Should you have any questions, please contact Mr. John Reid, Planner, at 547-7396.

Sincerely,

  
WILLIAM D. BALFOUR, JR.  
Director

WDB:cu (5598)

cc: Mr. Don Griffin, Department of Design and Construction



GROUP 70

May 29, 2002

Francis S. Ode, Arch. D., AIA, AICP  
Norman GY. Heng, AIA  
Sheryl B. Scaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihel, AIA, CSI  
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Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Ruotolo, AICP  
Norma J. Scott  
Scott Tangonan  
Sharon Ching Williams, AIA

Mr. William Balfour, Jr., Director  
Department of Parks and Recreation  
City and County of Honolulu  
650 South King Street, 10<sup>th</sup> Floor  
Honolulu, HI 96813

Dear Mr. Balfour:

Subject: 'Aiea Town Center Master Plan  
Pre-Consultation Notice for the Draft Environmental Assessment

Thank you for your November 26, 2001 letter regarding the Pre-Consultation Notice for the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We acknowledge your statement that you support the improvements as proposed.

Your letter and this response will be included in the Draft EA. We will forward a copy of the Draft EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

Appendix C  

---

Draft EA Comments and Responses

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



BRUCE S. ANDERSON, Ph.D., M.P.H.  
DIRECTOR OF HEALTH

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

In reply, please refer to:  
File:  
02-148/epo

July 3, 2002

R E F I L E U  
JUL - 9 2002

GROUP 70

Mr. Jeff Overton, AICP  
925 Bethel Street 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:

Subject: Draft Environmental Assessment (DEA)  
Aiea Town Center Master Plan  
Tax Map Keys: 9-9-078: 1-15

Thank you for the opportunity to review and comment on the subject proposal. The DEA was routed to the various branches of the Environmental Health Administration. We have the following comments.

Solid and Hazardous Waste Branch (SHWB)

The SHWB, Underground Storage Tanks (UST) Section has a file (file #9-200177, release #R000088) on the California and Hawaiian Sugar Company former Aiea Sugar Mill site at 99-195 Aiea Heights Road, Aiea, Hawaii 96701. This site may be part of the proposed Aiea Town Center site. The release was satisfactorily addressed and we issued a "no further action" letter on July 17, 2000.

The Solid and Hazardous Waste Branch (SHWB) has made the Underground Storage Tank (UST)/Leaking Underground Storage Tank (LUST) database for Hawaii available on the Internet at <http://www.state.hi.us/health/eh/shwb> and on 3.5" floppy disk in Microsoft Excel format. These allow for searches by street address, facility name, city, etc. This version is also available through e-mail.

To order the disk for \$3.00 or e-mail version free of charge, please submit a *Request to Access a Government Record* form, specifying: **UST/LUST database on 3.5" disk (or e-mail)**, and attention it to the UST Section, SHWB. The latest copy of the RCRA List can also be obtained by contacting the SHWB, located at 919 Ala Moana Boulevard, Room 212, Honolulu, Hawaii 96814.

Mr. Jeff Overton, AICP  
July 3, 2002  
Page 2

If you have any questions, please contact Mr. Jack Richardson, Solid & Hazardous Waste Branch at (808) 586-4226.

Environmental Planning Office (EPO)

This project is located in the Aiea Stream/Pearl Harbor watershed. Aiea Stream and Pearl Harbor are currently listed under section 303(d) of the Clean Water Act as being impaired by turbidity. The stream is also listed for trash, the harbor for nutrients and suspended solids. The impaired status of these waters requires that the Department of Health establish Total Maximum Daily Loads (TMDLs) suggesting how much the existing pollutant loads should be reduced in order to attain water quality standards in the stream and coastal waters.

Although these TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives would be to prevent any project-related increases in pollutant loads. Page 3-6 of the Draft Environmental Assessment (DEA) states, "Construction phase runoff will be minimized to protect `Aiea stream water quality using appropriate erosion controls and construction site management. The long-term landscape management plan will include proper management of fertilizers and pesticides." According to page 2-6 of the DEA, "The property is currently graded for flat pads which step down toward the street." Existing land cover and land management practices are not well described, but it appears that land use intensity will continually increase from now to full build-out of the proposed project. Regardless of runoff minimization, erosion controls, and site management plans, these changes in land use, land cover, and on-site management activities over the project life-cycle may still cause increases in pollutant loads over time when measured against existing conditions.

The DEA also states, "The existing overall drainage pattern with discharge into `Aiea stream would remain the same and therefore should have no adverse impact on the storm drainage system as a result of the proposed `Aiea Town Center" (p. 3-6). Even if the spatial pattern of drainage into Aiea stream remains at pre-development levels, the quality of this runoff (and thus the magnitude of pollutant loads) may change. Conformance with City & County of Honolulu Storm Drainage Standards and the approved drainage Master Plan does not guarantee conformance with State water quality standards and TMDLs. Therefore we suggest that the Environmental Assessment (EA) explain how the nature and magnitude of runoff constituents may change over time.

A TMDL technical study of water quality in Aiea and other streams in the Pearl Harbor watershed will begin this year, and the TMDLs may be established by June 2003. We therefore encourage the Department of Design and Construction to participate in the TMDL process and suggest that they consult with the Department of Health Clean Water Branch (Engineering Section) to discuss how water pollution control permitting may be linked with TMDL implementation.

Lead and petroleum contamination of the property could be a serious water quality concern, but the DEA does not provide any data about this discovery. We suggest that the Clayton Group Services 2001 Remedial Investigation and Interim Soil Report be appended to the

Mr. Jeff Overton, AICP  
July 3, 2002  
Page 3

Environmental Assessment (EA) and/or that the EA text includes a summary of the contamination data from this report.

If you have any questions, please contact David Penn at (808) 586-4337.

Wastewater Branch (WWB)

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems". We reserve the right to review the detailed wastewater plans for conformance to applicable rules.

If you have any questions, please contact the Wastewater Branch at (808) 586-4294.

Clean Air Branch (CAB)

It is recommended that a dust control management plan be developed and implemented during all phases of development, as indicated in section 3.15 of the DEA.

As indicated in the DEA, the soil on the site contains hazardous material contaminations of lead on TMK 9-9-078, Parcels 7-15, and petroleum impacted soil on Parcel 6. A study of the hazardous materials in the area should be conducted and management plan be developed to properly contain and remove the hazardous materials.

The former Aiea Sugar Mill produced refined sugar. Although sugar is not a known contaminant, the Clean Air Branch received a complaint in the past regarding a molasses odor coming from the site and impacting the complainant.

If you have any questions, please contact Ms. Theresa Takiue, Clean Water Branch, at (808) 586-4200.

Sincerely,



GARY GILL  
Deputy Director  
Environmental Health Administration

c: SHWB  
EPO  
WWB  
CAB



January 10, 2003

Francis S. Oda, Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Mila, AIA

Mr. Gary Gill, Deputy Director  
Environmental Health Administration  
Department of Health  
State of Hawai'i  
PO Box 3378  
Honolulu, HI 96801

Dear Mr. Gill:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your July 3, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments:

1. Underground Storage Tank (UST): Thank you for the information regarding the UST. We acknowledge your comment that a "no further action" letter was issued on July 17, 2000.
2. Runoff into 'Aiea Stream: The proposed development is expected to reduce the potential for the runoff of hazardous pollutants into 'Aiea Stream. Hazardous materials have already been removed from the Town Center and Senior Facility Parcels. The planned residential development of the 'Aiea Stream parcel would also include the remediation of hazardous materials and, therefore, a further reduction of the potential for hazardous pollutant loads from entering 'Aiea Stream.

Erosion mitigation measures will be also be implemented. For example, site design will minimize runoff through on-site dispersal and filtering methods. Increased surface runoff from newly paved parking and pedestrian areas will be minimized through these methods. Best management practices such as sediment basins, filter fences, diversion swales, and biofiltration swales will be used to minimize the amount of soil transported to the 'Aiea Stream. The impact of construction activities on the 'Aiea Stream will be mitigated by practicing strict erosion control and dust control measures, particularly those specified in the following:

Letter to Gary Gill, Deputy Director  
Environmental Health Administration, Department of Health  
January 10, 2003  
page 2

- City and County of Honolulu Grading Ordinance
- State of Hawai'i, Department of Health, Water Quality Standards, Chapter 37-A (1968)
- State of Hawai'i, Department of Health Total Maximum Daily Loads (TMDLs) currently under development
- USDA Soil Conservation Service, Erosion and Sediment Control Guide for Hawai'i (1968)

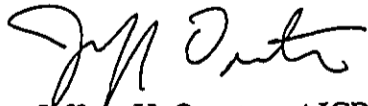
Detailed construction period mitigation plans will be provided in the design and permitting phase, including the National Pollutant Discharge Elimination System (NPDES) Construction runoff permit.

3. TMDL Process: The Department of Design and Construction will consult with the Department of Health Clean Water Branch to discuss how water pollution control permitting may be linked with TMDL implementation.
4. Hazardous Materials: The EA will include Clayton Group Services' Executive Summary of the Remedial Investigation and Interim Soil Report (October 2001) as well as the Executive Summary of the Remedial Action Report for Lead Impacted Soil (October 2002). These reports provide details about the hazardous materials at the project site and the remediation of hazardous materials on Parcels 6-14.
5. Waste Water: All wastewater plans will conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems".

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



Jeffrey H. Overton, AICP  
Chief Environmental Planner





STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809  
July 10, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

LD-NAV  
C&COHAIEATOWN.RCM  
L-3623/3356/133/3482/119/164

Group 70 International, Inc.  
Jeff Overton, AICP  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

RECEIVED

JUL 11 2002

GROUP 70

Dear Mr. Overton:

SUBJECT: Aiea Town Master Plan - Draft Environmental Assessment, Aiea,  
Island of Oahu, Hawaii

Thank you for the opportunity to review and comment on the subject matter. A copy of the Draft Environment Assessment covering the subject matter was distributed to the following Department of Land and Natural Resources' (DLNR) Divisions for their review and comment:

Division of Aquatic Resources - Division of Forestry  
and Wildlife - Division of State Parks - Division of  
Boating and Ocean Recreation - Historic Preservation  
Division - Commission on Water Resource Management -  
Land Division Planning and Technical Services - Land  
Division Engineering Branch - Land Division Oahu District  
Land Office

Attached herewith is a copy of the Historic Preservation Division,  
Commission on Water Resource Management and Land Division Engineering  
Branch comments.

The Department of Land and Natural Resources has no other comment  
to offer on the subject matter based on the attached DLNR Division  
responses. However, if we receive any additional comments, they will be  
forwarded to your office at that time.

Should you have any questions, please feel free to contact  
Nicholas A. Vaccaro of the Land Division Support Services Branch at  
(808) 587-0438.

Very truly yours,

for DIERDRE S. MAMIYA  
Administrator

C: Oahu District Land Office

0 12

- 0: ADMINISTRATOR
- ASST ADMIN
- DEV BR
- PLAN BR → □
- RES MGT BR
- CLERICAL
- ADMIN ASST
- INTERP BR
- IP:
- CIRC/POST/STAFF RM
- COMMENTS & REC
- DRAFT REPLY
- FILE
- FOLLOW UP
- INFO
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- SEE ME Ref.: C&CoHAIEATOWN.CMT
- FAX/SEND COPY TO



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STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809

- AQUATIC RESOURCES
- BOATING AND OCEAN RECREATION
- CONSERVATION AND
- RESOURCES ENFORCEMENT
- CONVEYANCES
- FORESTRY AND WILDLIFE
- HISTORIC PRESERVATION
- LAND DIVISION
- STATE PARKS
- WATER RESOURCE MANAGEMENT

June 7, 2002

Suspense Date: 7/3/02  
L-3356

MEMORANDUM:

- TO:
- XXX Division of Aquatic Resources
  - XXX Division of Forestry & Wildlife
  - XXX Division of State Parks
  - XXX Division of Boating and Ocean Recreation
  - XXX Historic Preservation Division
  - XXX Commission on Water Resource Management
  - Land Division Branches of:
  - XXX Planning and Technical Services
  - XXX Engineering Branch
  - XXX Oahu District Land Office

FROM: *for* Dierdre S. Mamiya, Administrator *Chalene*  
Land Division

SUBJECT: Aiea Town Center Master Plan - Draft Environmental Assessment, Aiea, Island of Oahu, Hawaii

Please review the Draft Environmental Assessment covering the subject matter and submit your written comment and recommendation (if any) on Division letterhead signed and dated on or before the suspense date. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

NOTE: One (1) copy of the Draft Environmental Assessment is available for review in the Land Division Office, room 220.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

(X) We have no comments.                      ( ) Comments attached.

Signed: *Paul J. ...*  
State Parks Administrator

Date: 6/19/02



RECEIVED  
7:02 JUN 14 A 9:00

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

June 7, 2002

LD-NAV  
Ref.: C&CoHAIEATOWN.CMT

Suspense Date: 7/3/02  
L-3356

MEMORANDUM:

- TO:
- XXX Division of Aquatic Resources
  - ✓ XXX Division of Forestry & Wildlife
  - XXX Division of State Parks
  - XXX Division of Boating and Ocean Recreation
  - XXX Historic Preservation Division
  - XXX Commission on Water Resource Management
  - Land Division Branches of:
    - XXX Planning and Technical Services
    - XXX Engineering Branch
    - XXX Oahu District Land Office

FROM: *for* Dierdre S. Mamiya, Administrator *Chalene*  
Land Division

SUBJECT: Aiea Town Center Master Plan - Draft Environmental Assessment, Aiea, Island of Oahu, Hawaii

Please review the Draft Environmental Assessment covering the subject matter and submit your written comment and recommendation (if any) on Division letterhead signed and dated on or before the suspense date. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

NOTE: One (1) copy of the Draft Environmental Assessment is available for review in the Land Division Office, room 220.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

We have no comments.

Comments attached.

Signed: *[Signature]*  
DOFAW Administrator  
Date: 6/12/02

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES  
ERIC T. HIRANO  
LINNEL NISHIOKA

RECEIVED  
2002 JUL -3 P 4:23

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUIHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707


June 27, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

MEMORANDUM

LOG NO: 30170 ✓  
DOC NO: 0206EJ31

To: Dierdre Mamiya, Administrator  
Land Division

From: Don Hibbard, Administrator  
Historic Preservation 

SUBJECT: Chapter 6E-8 Historic Preservation Review - Draft Environmental  
Assessment City and County of Honolulu Department of Design and  
Construction: Aiea Town Center Master Plan-  
Aiea, `Ewa, O`ahu  
TMK: 9-9-078:001 through 015

Thank you for the opportunity to provide comment on the DEA for the Aiea Town Center Master Plan. The DEA correctly incorporates our earlier comments that the subject parcel, part of the former Aiea sugar mill operations, has been extensively modified through industrial use and that Aiea Stream has also been greatly altered by the installation of a concrete channel along its entire length on the property. Consequently, it is unlikely that significant historic sites are still present on the subject parcels. Therefore, we believe that proposed development of the Aiea Town Center, the Library and a senior housing facility will have "no effect" on significant historic sites.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

EJ:jk

c: Jeffrey H. Overton, AICP, Chief Environmental Planner, Group 70  
International Inc., 925 Bethel Street, 5<sup>th</sup> Floor, Honolulu, Hawaii 96813

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN  
CHAIRPERSON

BRUCE S. ANDERSON  
MEREDITH J. CHING  
CLAYTON W. DELA CRUZ  
BRIAN C. NISHIDA  
HERBERT M. RICHARDS, JR.

LINNEL T. NISHIOKA  
DEPUTY DIRECTOR

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LAND DIVISION

2007 JUL -3 A 10:23

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCE MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

June 27, 2002

Ref:Alea Town Center.dr

TO: Ms. Dede Mamiya, Administrator  
Land Division

FROM: Linnel T. Nishioka, Deputy Director  
Commission on Water Resource Management (CWRM)

SUBJECT: Alea Town Center Master Plan – Draft Environmental Assessment, Alea, Island of Oahu,  
Hawaii

FILE NO.: C&CoHAIEATOWN.CMT

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

- We recommend coordination with the county government to incorporate this project into the county's Water Use and Development Plan.
- We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.
- A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.
- The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.
- Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county's Building Department and the developer's acceptance of any resulting requirements related to erosion control.
- If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the instream flow standard for the affected stream(s).
- If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- OTHER:

If there are any questions, please contact Lenore Nakama at 587-0218.



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

June 7, 2002

LD-NAV  
Ref.: C&CoHAIEATOWN.CMT

Suspense Date: 7/3/02  
L-3356

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Historic Preservation Division  
✓ XXX Commission on Water Resource Management  
Land Division Branches of:  
XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Oahu District Land Office

FROM: *for* Dierdre S. Mamiya, Administrator *Charlene*  
Land Division

SUBJECT: Aiea Town Center Master Plan - Draft Environmental  
Assessment, Aiea, Island of Oahu, Hawaii

Please review the Draft Environmental Assessment covering the subject matter and submit your written comment and recommendation (if any) on Division letterhead signed and dated on or before the suspense date. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

NOTE: One (1) copy of the Draft Environmental Assessment is available for review in the Land Division Office, room 220.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments.

(X) Comments attached.

Signed: *Lenora Williams*

Date: *6-24-02*

DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Engineering Branch

COMMENTS

For your information the project site is located in Zone X (Not shaded). This is an area determined to be outside of the 500-year floodplain.

Please correct the FIRM Flood Insurance Rate Map Panel Number indicated on page 3-5 of the Draft Environmental Assessment for the subject project. The correct FIRM Flood Insurance Rate Map Panel Number for the subject project is 15003C 0245 E, dated November 20, 2000.

Also, if the proposed Library would be managed by the State, the Environmental Assessment should include project water demand and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply (BWS) system must first obtain a water allocation credit from the Engineering Branch, Land Division before it can receive a building permit and/or water meter.

Signed: Andrew M. Monden  
ANDREW M. MONDEN, CHIEF ENGINEER

Date: 7/5/02



JUN 10 AM 10:34 WATER & LAND

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
LAND DIVISION  
P.O. BOX 621  
HONOLULU, HAWAII 96809

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND DIVISION  
STATE PARKS  
WATER RESOURCE MANAGEMENT

June 7, 2002

LD-NAV  
Ref.: C&CoHAIEATOWN.CMT

Suspense Date: 7/3/02  
L-3356

MEMORANDUM:

TO: XXX Division of Aquatic Resources  
XXX Division of Forestry & Wildlife  
XXX Division of State Parks  
XXX Division of Boating and Ocean Recreation  
XXX Historic Preservation Division  
XXX Commission on Water Resource Management  
Land Division Branches of:  
✓ XXX Planning and Technical Services  
XXX Engineering Branch  
XXX Oahu District Land Office

RECEIVED  
LAND DIVISION  
2002 JUN -5 P 3:34

FROM: *JSM* Dierdre S. Mamiya, Administrator *Charlene*  
Land Division

SUBJECT: Aiea Town Center Master Plan - Draft Environmental  
Assessment, Aiea, Island of Oahu, Hawaii

Please review the Draft Environmental Assessment covering the subject matter and submit your written comment and recommendation (if any) on Division letterhead signed and dated on or before the suspense date. Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0438.

NOTE: One (1) copy of the Draft Environmental Assessment is available for review in the Land Division Office, room 220.

If this office does not receive your comments by the suspense date, we will assume there are no comments.

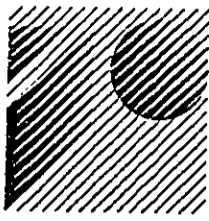
( ) We have no comments.

Comments attached.

Signed:

Date:





GROUP 70  
INTERNATIONAL

Francis S. Oda, AIA, AICP  
Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
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Paul P. Chorney, AIA  
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Philip T. Cuccia  
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Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
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Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Vic K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Ruotola, AICP  
James L. Stone, AIA  
Scott Tangonan  
Wesley N. Ujirinri, AIA  
Sharon Ching Williams, AIA

January 10, 2003

Ms. Dierde S. Mamiya, Administrator  
Land Division  
Department of Land and Natural Resources  
PO Box 621  
Honolulu, HI 96809

Dear Ms. Mamiya:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your July 10, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). Your letter grouped several divisions' comments. The respective responses are provided below:

Historic Preservation Division: A response to the comment letter of June 27, 2002 was sent directly to the division.

Commission on Water Resource Management: We acknowledge the recommendation to coordinate with the City and County of Honolulu to integrate the project into the County's Water Use and Development Plan.

Land Division Engineering Branch: We acknowledge the confirmation that the project site is in Flood Zone X. The FIRM Panel Number has been corrected. The Final EA will include library water demand and infrastructure required to meet water demands.

Division of State Parks: We acknowledge that this division did not have comments.

Division of Forestry and Wildlife: We acknowledge that this division did not have comments.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

DEPUTIES  
ERIC T. HIRANO  
LINNEL NISHIOKA

RECEIVED

JUL - 1 2002

GROUP 70

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHEWA BUILDING, ROOM 555  
601 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

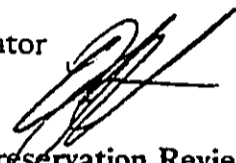
June 27, 2002

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

MEMORANDUM

LOG NO: 30170 ✓  
DOC NO: 0206EJ31

To: Dierdre Mamiya, Administrator  
Land Division

From: Don Hibbard, Administrator  
Historic Preservation 

SUBJECT: Chapter 6E-8 Historic Preservation Review - Draft Environmental  
Assessment City and County of Honolulu Department of Design and  
Construction: Aiea Town Center Master Plan-  
Aiea, `Ewa, O`ahu  
TMK: 9-9-078:001 through 015

Thank you for the opportunity to provide comment on the DEA for the Aiea Town Center Master Plan. The DEA correctly incorporates our earlier comments that the subject parcel, part of the former Aiea sugar mill operations, has been extensively modified through industrial use and that Aiea Stream has also been greatly altered by the installation of a concrete channel along its entire length on the property. Consequently, it is unlikely that significant historic sites are still present on the subject parcels. Therefore, we believe that proposed development of the Aiea Town Center, the Library and a senior housing facility will have "no effect" on significant historic sites.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

EJ:jk

c: ✓ Jeffrey H. Overton, AICP, Chief Environmental Planner, Group 70  
International Inc., 925 Bethel Street, 5<sup>th</sup> Floor, Honolulu, Hawaii 96813

LINDA LINGLE  
GOVERNOR OF HAWAII



ERIC HIRANO, ACTING DIRECTOR  
BOARD OF LAND AND NATURAL RESOURCES  
COMMISSION ON WATER RESOURCES MANAGEMENT

STATE OF HAWAII

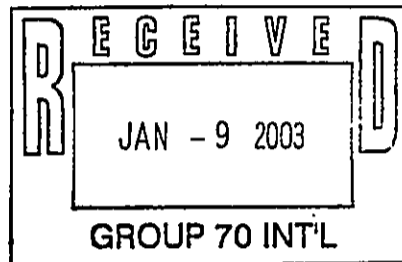
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION  
KAKUHIHEWA BUILDING, ROOM 555  
801 KAMOKILA BOULEVARD  
KAPOLEI, HAWAII 96707

AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
COMMISSION ON WATER RESOURCE  
MANAGEMENT  
CONSERVATION AND RESOURCES  
ENFORCEMENT  
CONVEYANCES  
ENGINEERING  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND  
STATE PARKS

January 6, 2003

Megan York  
Group 70 International Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813



LOG NO: 31320  
DOC NO: 0212EJ09

Dear Ms. York:

**SUBJECT: Chapter 6E-8 Historic Preservation Review -- City and County of Honolulu  
Department of Design and Construction -- Aiea Town Center Master Plan-  
Additional Comments on Stream/Greenbelt Area [County/Planning &  
Permitting]  
Aiea, `Ewa, O`ahu  
TMK: 9-9-077: 007 through 014**

Thank you for the opportunity to provide additional information to clarify the Department of Planning and Permitting's concern regarding DLNR's comments on the effect the project would have on significant historic properties in regards to the alteration and channelization of Aiea stream. As stated in our earlier correspondence, the historic Aiea Sugar Mill (SIHP NO. 50-80-09-9786) once occupied portions of this parcel before it was demolished. As a result the subject parcel, part of the former sugar mill operations, has been extensively modified through industrial use. From the information provided in the DEA we believe that Aiea Stream had been greatly altered by the installation of a concrete channel along its entire length on the property. Subsequently, the DPP has stated that this portion of the stream has not been channelized. The master plan proposed that this area along the stream will remain in a natural state as a greenbelt to provide passive recreational activities. Because of past extensive land alteration, we still believe it is unlikely that significant historic sites are still present on any of the subject parcels. Therefore, we still believe that proposed development of the Aiea Town Center including those projects within the area of the stream will have "no effect" on significant historic sites.

If you have any questions please call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

Aloha,

A handwritten signature in cursive script that reads "P. Holly McEldowney".

P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division

EJ:jk



January 10, 2003

Francis S. Oda, Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Ms. P. Holly McEldowney, Acting Administrator  
State Historic Preservation Division  
Department of Land and Natural Resources  
Kakuhihewa Building, Room 555  
601 Kamokila Boulevard  
Kapolei, HI 96707

Dear Ms. McEldowney:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment


Thank you for your June 27, 2002 and January 6, 2002 letters regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We acknowledge your comment that the proposed development of the 'Aiea Town Center, the library, and the senior housing facility will have "no effect" on significant historic sites.

Your letters and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

  
Jeffrey H. Overton, AICP  
Chief Environmental Planner

BENJAMIN J. CAYETANO  
GOVERNOR



GENEVIEVE SALMONSON  
DIRECTOR

STATE OF HAWAII  
OFFICE OF ENVIRONMENT QUALITY CONTROL

235 SOUTH BERETANIA STREET  
SUITE 702  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 586-4185  
FACSIMILE (808) 586-4186

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JUL - 9 2002

GROUP 70

July 8, 2002

Ms. Rae M. Loui, Director  
Department of Design and Construction  
City and County of Honolulu  
650 South King Street, 11<sup>th</sup> Floor  
Honolulu, Hawai'i 96813

Dear Ms. Loui:

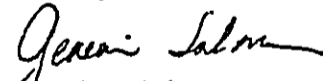
Subject: Draft Environmental Assessment for the 'Aiea Town Center, O'ahu

Thank you for the opportunity to review the subject document. We have the following comments.

1. Please attach the October 2001 Clayton Group Services Remedial Investigation and Interim Soil Report the Final EA. Also, provide details of the clean-up plan.
2. Please provide a transportation plan that is safe and efficient for the elderly.
3. Please list the details of the mitigation measures to prevent soil erosion from the grading activity from contaminating 'Aiea stream.
4. This project should comply with sections 103D-407 and 408 of Hawaii Revised Statutes concerning the use of indigenous plants and recycled glass.

Should you have any questions, please call Jeyan Thirugnanam at 586-4185. Mahalo.

Sincerely,

  
Genevieve Salmonson  
Director

C: Group 70



January 10, 2003

Ms. Genevieve Salmonson  
Office Of Environment Quality Control  
235 South Beretania Street, Suite 702  
Honolulu, HI 96813

Dear Ms. Salmonson:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your July 8, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments:

1. **Soil Report:** The EA will include Clayton Group Services' Executive Summary of the Remedial Investigation and Interim Soil Report (October 2001) as well as the Executive Summary of the Remedial Action Report for Lead Impacted Soil (October 2002). These reports provide details about the hazardous materials at the project site and the remediation of hazardous materials on Parcels 6-14. Please contact Clayton Group at 531-6708 to receive a copy of the full reports.
2. **Transportation Plan for Elderly:** The EA will include a safe and efficient transportation plan for the elderly. Transportation for the elderly will be provided by existing services such as the Handi-Van. Sheltered waiting areas and pickup/drop-off locations will be provided. Accessible parking will be located in proximity to buildings that the handicapped and elderly visit most frequently. Internally, all facilities, including sidewalks and ramps will comply with ADA so that circulation of elderly persons will not be constrained.
3. **Soil Erosion:** The EA will include the details of the mitigation measures to prevent soil erosion from the grading activities from contaminating 'Aiea Stream. Grading and related construction activities will be conducted in a manner which will insure full compliance with the dust and erosion requirements of applicable County, State, and Federal regulations. These measures include but are not limited to the use of temporary ground covers, cut off ditches, and detention ponds.

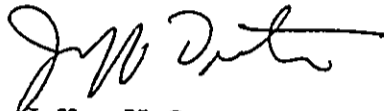
Letter to Genevieve Salmonson  
Office of Environment Quality Control  
January 10, 2003  
Page 2

4. Sections 103D-407 and 408 of Hawai'i Revised Statutes: The project will comply with these sections concerning the use of indigenous plants and recycled glass where practical.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



Jeffrey H. Overton, AICP  
Chief Environmental Planner

PHONE (808) 594-1888

FAX (808) 594-1865



RECEIVED

JUN 19 2002

GROUP 70

STATE OF HAWAII  
OFFICE OF HAWAIIAN AFFAIRS  
711 KAPI'OLANI BOULEVARD, SUITE 500  
HONOLULU, HAWAII 96813

HRD#02-639

June 14, 2002

Mr. Jeff Overton, ACIP  
Group 70 International, Inc.  
925 Bethel Street - 5<sup>th</sup> Floor  
Honolulu, HI 96813

SUBJECT: AIEA TOWN CENTER MASTER PLAN - DEA

Dear Mr. Overton:

Thank you for the opportunity to review the above referenced Draft Environmental Assessment Master Plan for the Aiea Town Center.

The Office of Hawaiian Affairs (OHA) has no comments at this point in time. If you have any questions, please contact Jerry B. Norris at 594-1847.

Sincerely,

A handwritten signature in cursive script, appearing to read "Jana S. Keala".

Jana S. Keala  
Acting Director, Hawaiian Rights Division

cc: OHA Board of Trustees  
Clyde W. Namu'o, OHA Administrator





GROUP 70  
INTERNATIONAL

January 10, 2003

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDT  
Philip T. Cuccia  
Sutobin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kae K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Ruotola, AICP  
James L. Stone, AIA  
Scott Tangeman  
Wesley N. Upton, AIA  
Sharon Ching Wilkoff, AIA

Ms. Jalna S. Keala  
Office of Hawaiian Affairs  
State of Hawai'i  
711 Kapi'olani Boulevard, Suite 500  
Honolulu, HI 96813

Dear Ms. Keala:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your June 14, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We acknowledge your comment that OHA has no comments at this time.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

**BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



June 19, 2002

JEREMY HARRIS, Mayor

EDDIE FLORES, JR., Chairman  
CHARLES A. STED, Vice-Chairman  
JAN M.L.Y. AMII  
HERBERT S.K. KAOPUA, SR.

BRIAN K. MINAAI, Ex-Officio  
ROSS S. SASAMURA, Ex-Officio

CLIFFORD S. JAMILE  
Manager and Chief Engineer

RECEIVED  
JUN 21 2002  
GROUP 70

Mr. Jeff Overton  
Group 70 International, Inc.  
925 Bethel Street, 5th Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:

Subject: Your Letter of May 29, 2002 on the Draft Environmental Assessment for the Aiea Town Center Master Plan, TMK: 9-9-078: 1-15

Thank you for the opportunity to review the draft assessment for the proposed Aiea Town Center.

The existing water system is presently adequate to accommodate the proposed project.

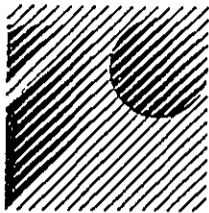
The availability of water will be confirmed when the building permits are submitted for our review and approval. When water is made available, the applicant will be required to pay our Water System Facilities charges for resource development, transmission, and daily storage.

The proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Applications.

If you have any questions, please contact Joseph Kaakua at 523-6123.

Very truly yours,

*for* CLIFFORD S. JAMILE  
Manager and Chief Engineer



GROUP 70  
INTERNATIONAL

January 10, 2003

Francis S. Oda, Arch. D., AIA, AICP  
Norman GY. Hong, AIA  
Sheryl B. Seaman, AIA, A.S.D.  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Mr. Clifford S. Jamile, Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, HI 96843

Dear Mr. Jamile:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your June 19, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We acknowledge your comment that the existing water system is presently adequate to accommodate the proposed project and that the proposed project is subject to the Cross-Connection Control and Backflow Prevention requirements prior to issuance of the Building Permit Applications.

In addition, we acknowledge your comment that the availability of water will be confirmed when building permits are submitted for review and approval.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

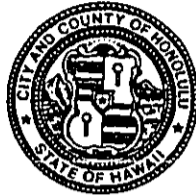
GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

FIRE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**

3375 KOAPAKA STREET, SUITE H425  
HONOLULU, HAWAII 96819-1869

JEREMY HARRIS  
MAYOR



RECEIVED

JUN 27 2002

GROUP 70

ATTILIO K. LEONARDI  
FIRE CHIEF

JOHN CLARK  
DEPUTY FIRE CHIEF

June 18, 2002

Mr. Jeff Overton, AICP  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment  
'Aiea, Island of Oahu, Hawaii  
TMK: 9-9-078: Parcels 001 through 015

We received your letter dated May 29, 2001, on June 6, 2002, regarding the Draft Environmental Assessment for the 'Aiea Town Center Master Plan.

The Honolulu Fire Department (HFD) requests that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.
2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000-pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.

Mr. Jeff Overton, AICP  
Page 2  
June 18, 2002

3. Submit construction plans to the HFD and the Department of Planning and Permitting.

Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

Sincerely,



ATTILIO K. LEONARDI  
Fire Chief

AKL/KB:jo



GROUP 70  
INTERNATIONAL

Francis S. Oda, Arch. D., AIA, AICP  
Norman GY. Hong, AIA  
Sheryl B. Scaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
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Katherine M. MacNeil, AIA  
Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Niemi  
Jeffrey H. Overton, AICP  
Christine M. Piorella, AICP  
James L. Stone, AIA  
Scott Tangonan  
Wesley N. Ujiono, AIA  
Sharon Gong Williams, AIA

January 10, 2003

Mr. Attilio K. Leonardi, Fire Chief  
Fire Department  
City and County of Honolulu  
3375 Koapaka Street, Suite H425  
Honolulu, HI 96819-1869

Dear Mr. Leonardi:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your June 18, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We have prepared the following responses to you comments:

1. Private Water System - The water system design will ensure that appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.
2. Fire Department Access - The proposed improvements will conform to Fire Department guidelines regarding access roads.
3. Approval of Construction Drawings - Construction drawings will be submitted to the Honolulu Fire Department for review and approval during the design review phase.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

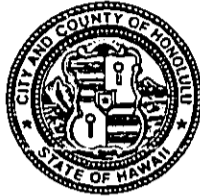
GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

DEPARTMENT OF PLANNING AND PERMITTING  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 523-4414 • FAX: (808) 527-6743 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS  
MAYOR



RECEIVED  
JUL 30 2002  
GROUP 70

RANDALL K. FUJIKI, AIA  
DIRECTOR  
LORETTA K.C. CHEE  
DEPUTY DIRECTOR

2002/ELOG-1574(BA)

July 18, 2002

Mr. Jeffrey Overton  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813

Dear Mr. Overton:

Draft Environmental Assessment  
Aiea Town Center  
Halewiliko Street - Aiea

The Department of Planning and Permitting (DPP) appreciates the opportunity to review the Draft Environmental Assessment (EA) for the Aiea Town Center. We understand that the project proposes to include a community town center and day care facility, senior facility, public library, meeting rooms, thrift store, art center, coffee/snack shop, and outdoor performance area. We offer the following comments:

**Land Use and Zoning**

**STREAM GREENBELT.**

The alternatives for a separate zoning designation for the stream greenbelt should be reconsidered. Such a proposal would split-zone the site. The existing Floodway Area should preclude any development along the stream banks, and a designated landscape easement may be a more appropriate vehicle to preserve the greenbelt area as a recreational feature. The easement could be required as a condition of the proposed rezoning of parcel 15 from I-2 to Low-Density Residential zoning.

The EA should be revised to reflect the City Council Planning Committee amendment of Bill No. 46, to delete the proposal for placing a "government building" symbol on this parcel.

Also, the State Department of Land and Natural Resources (DLNR) letter of November 20, 2001 assumes that the stream is channelized along its entire length. However, it is our understanding that this portion of Aiea Stream is not channelized, therefore, the DLNR's assessment may be incorrect and the historic significance of the area may need to be reevaluated.

Mr. Jeffrey Overton  
Group 70 International, Inc.  
Page 2  
July 18, 2002

**PROJECT ALTERNATIVES.**

The EA should clarify how the addition of 64 dwelling units (per Alternative 2: Residential Development) could generate a greater impact in traffic and noise than the gathering place proposed in the town center, with a library and senior facility.

**Traffic**

Based on our review, we generally concur with the findings contained in the traffic impact analysis report (TIAR).

However, the following should be considered and incorporated into the future documentation and design plans as the project progresses:

1. The configuration and design of the proposed drop-off area on Halewiliko Street may present traffic flow problems and needs to be addressed in greater detail with regard to access location, width and depth of the driveway and intended use. These details should be provided prior to submittal of construction plans for this project.
2. A traffic management plan should be prepared as the project progresses and should be submitted for review prior to the completion of Phase I, which we understand will include a community center and meeting rooms. The plan should identify mitigative traffic control measures for events that may cause traffic or parking problems on the surrounding streets within the affected area. Mitigative measures should be presented to alleviate these potential or identifiable traffic and parking problems.
3. Construction plans for all work within or affecting city streets should be submitted for review and approval. Traffic control plans during construction should also be submitted, as required.

Should you have any questions, please feel free to contact Bonnie Arakawa of my staff at 527-5837.

Sincerely yours,



RANDALL K. FUJIKI, AIA  
Director of Planning and Permitting

RKF:lh  
doc164913

cc: State DLNR, Historic Preservation Division





January 10, 2003

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Mr. Eric Crispin, Director  
Department of Planning and Permitting  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Dear Mr. Crispin: Eric

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your July 18, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments:

1. Stream Greenbelt Zoning Designation: The Final EA will propose that the entire greenbelt/residential area (Parcel 15) be zoned A-1 with an easement along the stream banks. The existing floodway area will preclude any development along the stream banks and the designated landscape easement will preserve the greenbelt area as a recreational feature.
2. Government Symbol on Stream Greenbelt: The EA will be revised to reflect the City Council Planning Committee amendment of Bill No. 46, to delete the proposal for placing a "government building" symbol on Parcel 15, the greenbelt/residential area.
3. Channelization of 'Aiea Stream: The State Department of Land and Natural Resources (DLNR) Historic Preservation Division has been notified regarding the condition of the 'Aiea Stream. They did not change their assessment of the historic significance of the area.
4. Project Alternatives: The EA will clarify that the residential development alternative would generate less traffic and noise than the proposed Town Center.

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDF  
Philip T. Cuccia  
Satebin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Catherine M. MacNeil, AIA  
Frank B. McCue  
Gabe K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Riutolo, AICP  
James L. Stone, AIA  
Scott Tanskanen  
Wesley N. Ujimoto, AIA  
Sharon Ching Williams, AIA

Letter to Eric Crispin, Director  
Planning and Permitting  
January 10, 2003  
page 2

5. Traffic: The following should be considered and incorporated into future documentation and design plans prior to the development of Phase I:

- The impact of the proposed drop-off area on Halewiliko Street on present traffic flow problems.
- A traffic management plan will be submitted for review prior to the completion of Phase I.
- Traffic control plans during construction and construction plans for all work within or affecting city streets will be submitted for review and approval, as required.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.



Jeffrey H. Overton, AICP  
Chief Environmental Planner

DEPARTMENT OF PARKS AND RECREATION  
**CITY AND COUNTY OF HONOLULU**

1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707  
TELEPHONE: (808) 692-5561 • FAX: (808) 692-5131 • INTERNET: www.cc.honolulu.hi.us

JEREMY HARRIS  
MAYOR



WILLIAM D. BALFOUR, JR.  
DIRECTOR

EDWARD T. "SKIPPA" DIAZ  
DEPUTY DIRECTOR

June 21, 2002

RECEIVED  
JUN 26 2002  
GROUP 70

Mr. Jeff Overton, ACIP  
Group 70 International, Inc.  
925 Bethel Street  
Honolulu, Hawaii 96813

Dear Mr. Overton:

Subject: Draft Environmental Assessment  
Aiea Town Center Master Plan  
TMK: 9-9-78 Parcels 1-15

Thank you for the opportunity to review and comment on the Draft Environmental Assessment relating to the Aiea Town Center Mast Plan.

The Department of Parks and Recreation continues to support the redevelopment of the Aiea sugar mill site as proposed.

Should you have any questions, please contact Mr. John Reid, Planer at 692-5454.

Sincerely,

A handwritten signature in black ink, appearing to read "William D. Balfour, Jr.", with a circular mark around the end of the signature.

For: WILLIAM D. BALFOUR, JR.  
Director

WDB:mk (12432)

cc: Mr. Don Griffin Department of Design and Construction



January 10, 2003

Mr. William Balfour, Jr., Director  
Department of Parks and Recreation  
City and County of Honolulu  
650 South King Street, 10<sup>th</sup> Floor  
Honolulu, HI 96813

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seanan, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Dear Mr. Balfour:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your June 21, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

We acknowledge your statement that you support the improvements as proposed.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

George I. Aita, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDF  
Philip T. Cuccia  
Shirouji Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jew, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kylie K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine M. Ructola, AICP  
James L. Stone, AIA  
Scott Tangonan  
Wesley N. Ujimoto, AIA  
Sharon Chung Williams, AIA

DEPARTMENT OF FACILITY MAINTENANCE  
**CITY AND COUNTY OF HONOLULU**  
1000 ULUOHIA STREET, SUITE 215, KAPOLEI, HAWAII 96707  
TELEPHONE: (808) 692-5054 FAX: (808) 692-5857

JEREMY HARRIS  
MAYOR

RECEIVED  
JUN 27 2002



GROUP 70

June 24, 2002

ROSS S. SASAMURA  
DIRECTOR AND CHIEF ENGINEER

ALVIN K. C. AU  
DEPUTY DIRECTOR

IN REPLY REFER TO:  
DRM02-520

Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813-4307

Attention: Mr. Jeff Overton, AICP

Gentlemen:

Subject: **Draft Environmental Assessment  
Aiea Town Center Master Plan, Aiea, Oahu, Hawaii**

We have reviewed the subject Environmental Assessment and provide the following comment:

In reference to Page 2-6, 2.2.4 *Aiea Stream Greenbelt*, our records show that parcel (TMK: 9-9-78:15) containing Aiea Stream is privately owned. We are concerned that the draft Environmental Assessment may be interpreting the parcel as being maintained by the City and County. Maintenance of this parcel, as well as the pedestrian pathway, should be noted as being maintained by the private owners.

Should you have any questions, please contact Hugh Liu of the Division of Road Maintenance at 527-5337.

Very truly yours,

A handwritten signature in black ink, appearing to read "R. S. Sasamura", written over a horizontal line.

ROSS S. SASAMURA, P.E.  
Director and Chief Engineer

**'AIEA TOWN CENTER MASTER PLAN**

• Draft Environmental Assessment •



An existing roadway on the east side of the property is proposed as the access to the senior facility. The parking lot will be situated behind the senior facility. The exact number of parking stalls will be determined when the facility is designed.

The units will be located in one or more separate two-story "plantation" style buildings in order to avoid the use of overly large and incompatible building forms. The maximum height of the buildings will be 35 feet. 140 assisted living units were identified in the Master Plan. However, this number, which is based on input from the charrette process and other assisted living projects, is estimation and will probably change as the project is further developed and the type of senior facility is determined.

**2.2.4 'Aiea Stream Greenbelt**

Although the 'Aiea Stream is channelized, the area around the 'Aiea Stream will remain in a natural state. This greenbelt will provide opportunities for passive recreation. A pathway will be developed along the stream. The pedestrian pathway at the northern portion of the parcel will connect the greenbelt with the Town Center as well as provide pedestrian access to the Town Center from 'Aiea Intermediate School. There are hazardous materials located in this area.

**2.2.5 Residential Development**

The area bordering Kulawea Street could be developed as a residential area. Low density residential type housing would be compatible with the senior facility and the neighboring residential area. However, the extent of hazardous materials in the area would need to be thoroughly studied prior to any such development.

**2.2.6 Conceptual Interim Park Plan**

The interim plan for the Town Center property includes passive park and general field uses (Figure 2-3). The property is currently graded for flat pads which step down toward the street. Therefore, mass-grading for the future Town Center must be completed. Once graded, much of the site will be grassed to allow for functional uses as a park area. Irrigation will also be installed and a gravel parking area will be provided. Landscaping and other improvements will be designed in coordination with the layout of future Town Center facilities. This will minimize tree relocation or removal.

This interim park would be used for passive recreation and for community gatherings such as farmers markets, community festivals, and craft fairs. The gravel parking will provide parking for these large community events.



January 10, 2003

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Maki, AIA

Mr. Ross S. Sasamura, P.E.  
Department of Facility Maintenance  
City and County of Honolulu  
1000 Uluohia Street, Suite 215  
Kapolei, HI 96707

Dear Mr. Sasamura:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CD  
Philip T. Cuccia  
Surobin Haim  
Jeremy C. Hsu, AIA  
Roy A. Inoué, AIA, CSI  
Stuart M. Jew, AIA  
Charles Y. Kadoshiro, AIA  
Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kyle K. Nishimoto  
Kathryn A. Nani  
Jeffrey H. Overton, AICP  
Christine M. Puckols, AICP  
James L. Steiner, AIA  
Scott Tangeman  
Wesley N. Timmon, AIA  
Sharon Ching Williams, AIA

Thank you for your June 24, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments:

1. 'Aiea Stream Greenbelt: The EA will clearly reflect that the City does not currently own the parcel and all maintenance is completed by the private owner.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

POLICE DEPARTMENT  
**CITY AND COUNTY OF HONOLULU**  
801 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111  
<http://www.honolulu.police.org>  
[www.co.honolulu.hi.us](http://www.co.honolulu.hi.us)

JEREMY HARRIS  
MAYOR



LEE D. DONOHUE  
CHIEF

ROBERT AU  
GLEN KAJIYAMA  
DEPUTY CHIEFS

OUR REFERENCE CS-KP

June 25, 2002

RECEIVED

JUN 27 2002

GROUP 70

Mr. Jeff Overton, AICP  
Group 70 International, Inc.  
925 Bethal Street, 5th Floor  
Honolulu, Hawaii 96813-4307

Dear Mr. Overton:

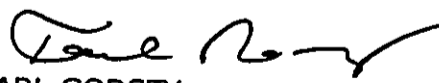
Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Aiea Town Center Master Plan.

To minimize the total impact of the proposed project on the facilities and services of the Honolulu Police Department, the stated mitigation measures need to be in place and enforced. Then, during its implementation, as well as after it is completed and operational, we believe that the anticipated overall impact on police services can be significantly reduced.

If there are any questions, please call Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

Sincerely,

LEE D. DONOHUE  
Chief of Police

By   
KARL GODSEY  
Assistant Chief of Police  
Support Services Bureau





January 10, 2003

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman G.Y. Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Mr. Lee D. Donahue  
Police Department  
City and County of Honolulu  
801 South Beretania Street  
Honolulu, HI 96813

Dear Mr. Donahue:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CDT  
Philip T. Cuccia  
Sutobin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christine W. Pustola, AICP  
James L. Stone, AIA  
Scott Tangeman  
Wesley M. Ujimoto, AIA  
Brandon Wong, AIA

Thank you for your June 25, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments:

1. Mitigation Measures: Mitigation measures will be in place and enforced during the implementation of the project as well as after its completion.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

DEPARTMENT OF COMMUNITY SERVICES  
**CITY AND COUNTY OF HONOLULU**  
715 SOUTH KING STREET, SUITE 311 • HONOLULU, HAWAII 96813  
TELEPHONE: (808) 527-5311 • FAX: (808) 527-5498 • INTERNET: www.co.honolulu.hi.us

JEREMY HARRIS  
MAYOR



MICHAEL T. AMII  
DIRECTOR

JOHN R. SABAS  
DEPUTY DIRECTOR

June 18, 2002

RECEIVED  
JUN 21 2002  
GROUP 70

Mr. Jeff Overton, AICP  
Chief Environmental Planner  
Group 70 International, Inc.  
925 Bethel Street  
Honolulu, Hawaii 96813

Dear Mr. Overton:

Subject: Draft Environmental Assessment for Aiea Town Center Master Plan

This is in response to your request for comments to the draft environmental assessment for the Aiea Town Center Master Plan.

Our comments are with regard to the senior housing component of the project:

1. We would ask that the appropriate process be instated for the remediation of the parcel and that this component of the project be initiated only when the site has been deemed to be "clean" without any risk of contamination.
2. It would be our recommendation that development of the site be afforded to a nonprofit organization through a request for proposals process.
3. It is also our recommendation that the Elderly Affairs Division of this Department be consulted for their comments regarding housing and other needs for seniors in our community.

If you have any questions, please call Randy Wong at 523-4435. Thank you for the opportunity to review and comment on the Aiea Town Center Master Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael T. Amii".

MICHAEL T. AMII  
Director

MTA:dk



January 10, 2003

Francis S. Oda,  
Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Seaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
Linda C. Miki, AIA

Mr. Michael T. Amii  
Department of Community Services  
City and County of Honolulu  
715 South King Street, Suite 311  
Honolulu, HI 96813

Dear Mr. Amii:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

George I. Atta, AICP  
Paul P. Chorney, AIA  
Wendy Lee Cook, AIA, CD  
Phil T. Cuccia  
Surocin Halim  
Jeremy C. Hsu, AIA  
Roy A. Inouye, AIA, CSI  
Stuart M. Jow, AIA  
Charles Y. Kaneshiro, AIA  
Dean H. Kitamura  
Katherine M. MacNeil, AIA  
Frank B. McCue  
Kyle K. Nakamoto  
Kathryn A. Nam  
Jeffrey H. Overton, AICP  
Christina M. Rucicola, AICP  
James L. Stone, AIA  
Scott Tangonan  
Wesley N. Ujima, AIA  
Sharon Ching Williams, AIA

Thank you for your June 18, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA). We have prepared the following responses to your comments regarding the senior housing component of the project:

1. **Soil Remediation:** The Final EA will reflect that the senior housing will be developed only when the site has been deemed to be "clean" without any risk of contamination.
2. **Non-Profit Management:** The Final EA will state that the development of the site be afforded to a nonprofit organization through a request for proposals process.
3. **Elderly Affairs Division:** The Elderly Affairs Division of the Department of Community Services will be consulted for their comments regarding housing and other needs for seniors in our community.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Jeffrey H. Overton, AICP  
Chief Environmental Planner

# CARLSMITH BALL LLP

A LIMITED LIABILITY LAW PARTNERSHIP

PACIFIC TOWER, SUITE 2200  
1001 BISHOP STREET  
HONOLULU, HAWAII 96813  
TELEPHONE (808) 523-2500 FAX (808) 523-0842  
WWW.CARLSMITH.COM

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JUL - 9 2002  
GROUP 70

DIRECT DIAL NO.  
(808) 523-2526

[isandison@carlsmith.com](mailto:isandison@carlsmith.com)

OUR REFERENCE NO.  
010028-02155

July 8, 2002

**VIA FACSIMILE [523-5874] AND U.S. MAIL**

Mr. Jeff Overton, AICP  
Group 70 International, Inc.  
925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, HI 96813-4307

Re: Aiea Town Center Master Plan Draft Environmental Assessment

Dear Mr. Overton:

We represent the Bank of Hawaii (the "Bank"), the owner of Tax Map Key Nos. 9-9-78:001-005 ("Library Parcels"), 9-9-78:006 ("Senior Facility Parcel"), 9-9-78:007-014 ("Town Center Parcels") and 9-9-78:015 ("Greenbelt/Residential Parcel"). As you are aware, the Aiea Town Center Master Plan Draft Environmental Assessment ("Draft EA") has been prepared in accordance with Chapter 343 of the Hawaii Revised Statutes based on the use of Honolulu City and County (the "City") administered funds.

Although the City has expressed an interest in having the State of Hawaii acquire the Library Parcels and itself acquire the Senior Facility Parcel and Town Center Parcels, such expression of interest is not the same as a binding commitment to purchase. The Bank would be less concerned with the Draft EA if in fact there was a binding commitment or the parties were very close to one. The reality is that the parties are still far from reaching a binding agreement for the purchase of any of the property. In addition, the City has recently expressed concerns about environmental issues on the Greenbelt/Residential Parcel. Finally, although apparently some funding for acquisition of the Library Parcel is contained in the Capital Budget Bill (Bill 20) and the State Legislature has appropriated land acquisition funds for the Library Parcel, we are unaware that the State has made any additional effort to proceed with acquisition of the parcels.

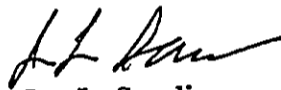
Mr. Jeff Overton, AICP  
Group 70 International, Inc.  
July 8, 2002  
Page 2

Therefore, inasmuch as (1) there is no binding agreement to purchase the properties from the Bank, (2) the City is continuing to study the Greenbelt/Residential Parcel for environmental issues, and (3) there is no indication that the State is proceeding with acquisition of the Library Parcels, it is inappropriate to proceed with the Draft EA. Quite simply, the Draft EA is premature.

We are concerned that the City's premature efforts to proceed with the Draft EA unfairly discourages other parties from pursuing the purchase of these properties and in effect drives down the market value, thereby enabling the City to acquire the properties at what they deem an attractive price. Notwithstanding the existing zoning and development plan land use designations, the practical effect of the Draft EA is to prevent the development and use of such property in accordance with existing land use regulations. No one will buy or use the properties if they believe that the properties will be acquired by the government. The City should not be allowed to do indirectly (by proceeding with the Draft EA) what it would not be allowed to do directly: acquire, condemn and materially interfere with the use of the property without just compensation.

Very truly yours,

CARLSMITH BALL LLP

  
Ian L. Sandison

ILS:ds  
1465487.1.doc

cc: Ms. Lisa Wong



Francis S. Ode, Arch. D., AIA, AICP  
Norman GY Hong, AIA  
Sheryl B. Szaman, AIA, ASID  
Hitoshi Hida, AIA  
Roy H. Nihei, AIA, CSI  
James I. Nishimoto, AIA  
Ralph E. Portmore, AICP  
Stephen H. Yuen, AIA  
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George I. Atta, AICP  
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January 10, 2003

Mr. Ian L. Sandison  
Carlsmith Ball LLP  
Pacific Tower, Suite 2200  
1001 Bishop Street  
Honolulu, HI 96813

Dear Mr. Sandison:

Subject: 'Aiea Town Center Master Plan  
Draft Environmental Assessment

Thank you for your July 8, 2002 letter regarding the 'Aiea Town Center Master Plan Draft Environmental Assessment (EA).

In early December 2002, the City purchased the Town Center Parcels (9-9-78:7-14) and the Senior Facility Parcel (9-9-78:6) from the Bank of Hawai'i. The Bank of Hawai'i continues to own the Library Parcels (9-9-78:1-5) and the Greenbelt/Residential Parcel (9-9-78:15).

The City is proceeding with the Final EA because the 'Aiea Town Center Master Plan focuses on the 'Aiea Town Center. The Master Plan and Final EA provide only general guidelines for the future development of the library, senior housing facility, and greenbelt/housing area.

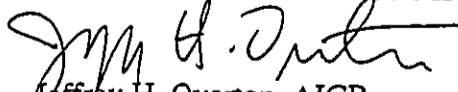
The Final EA will clearly state that the Bank of Hawai'i is the owner of the Library Parcels and that the State has not proceeded with plans to purchase the parcels. In addition, the EA will indicate that the Bank of Hawai'i owns the Greenbelt/Housing Parcel and that the City is continuing to study the Greenbelt/Residential Parcel for environmental issues.

It is our understanding that the Bank could potentially sell its property to buyers other than the State and/or City, and those buyers would be free to put the property to any use allowed under current applicable land use regulations.

Your letter and this response will be included in the Final EA. We will forward a copy of the Final EA for your review upon its completion. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

  
Jeffrey H. Overton, AICP  
Chief Environmental Planner

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Appendix D

Summary of existing conditions and anticipated  
impacts for drainage, water and sewer services  
Gray Hong Bills Nojima & Associates



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January 23, 2002

Group 70 International, Inc.  
925 Bethel Street, 5th Floor  
Honolulu, Hawaii 96813

Attention: Jeffrey H. Overton

SUBJECT: Aiea Town Center

Dear Mr. Overton:

Pursuant to your request, the following is a summary of existing conditions and anticipated impacts for drainage, water and sewer services for the proposed Aiea Town Center.

Storm Drainage System:

Aiea Stream is located east of the existing Aiea Industrial Subdivision. The Aiea Stream drainage basin is approximately 1.05 square miles and can generate 2,500 cfs based on the Flood Insurance Rate Map (FIRM) for this area. The City and County of Honolulu Drainage Standards predict a higher peak discharge of approximately 3,400 cfs passing through Aiea Stream based on Plate 6 of the Storm Drainage Standards. The onsite improvements as well as the bridge crossing connecting to Ulune Street for the Aiea Industrial Subdivision were based upon the City and County of Honolulu Drainage Standards.

Existing onsite storm drainage presently sheetflows from each of the industrial lots to the adjoining roadway. Various interceptor ditches, catchbasins and underground storm drain lines ranging in size from 18-inch to 30-inch, together with an outlet to Aiea Stream at the bridge structure were constructed for the Aiea Industrial Subdivision.

Onsite storm drainage for the proposed Aiea Town Center would consist of various onsite inlets and underground drainage lines which would connect to the existing roadway storm drainage system. The existing overall drainage pattern with discharge to Aiea Stream would remain the same and therefore should have no adverse impact on the storm drainage system as a result of the proposed Aiea Town Center.

Sanitary Sewer System:

As part of the Aiea Industrial Subdivision improvements, the sanitary sewer system from the adjacent Aiea Heights Subdivision to the sanitary sewer system located in the adjoining Hawaiian Agricultural Research Center (HARC) was replaced with a new 10-inch sewer line within the subdivision roadways.



Group 70 International, Inc.  
January 23, 2002  
Page 2

Sanitary sewer laterals were provided to each of the individual industrial lots connecting to the City sewer system within the roadways.

The offsite municipal wastewater system was available to accommodate the industrial subdivision provided the total wastewater discharge from the property did not exceed a peak flow of 150,000 gallons per day.

The proposed Aiea Town Center would utilize the existing sanitary sewer system previously constructed. Based upon preliminary proposed floor area and capita, the average wastewater flow has been estimated at approximately 47,000 gallons per day with a peak wastewater flow of approximately 250,000 gallons per day.

The extent of required offsite improvements will need to be determined by the City. The proposed Aiea Town Center improvements would be phased until such time that required offsite improvements were completed.

Water System:

Water service to the project site is provided by the Board of Water Supply's Aiea 277' system. As part of the improvements for the Aiea Industrial Subdivision, new 12-inch waterlines were constructed in each of the new roadways connecting to the existing 12-inch waterline within Aiea Drive. The lines were designed to provide water service as well as fire protection for 4,000 gallons per minute. Individual water laterals were provided for each of the industrial lots.

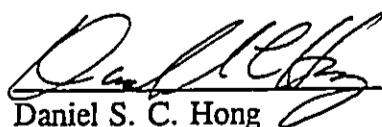
The proposed Aiea Town Center would utilize the existing water system previously constructed. Based upon preliminary proposed floor area and capita, the average daily water demand has been estimated at approximately 90,000 gallons per day.

There should be no adverse impact to the existing water system as a result of the proposed Aiea Town Center.

Please call this office if there are any questions.

Very truly yours,

GRAY, HONG, BILLS, NOJIMA & ASSOCIATES, INC.



Daniel S. C. Hong

DH:sk  
2860

PHILLIP ROWELL AND ASSOCIATES

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Appendix E  
Traffic Impact Analysis Report  
Phillip Rowell and Associates

TRAFFIC IMPACT ASSESSMENT REPORT FOR

# **AIEA TOWN CENTER**

IN AIEA, OAHU, HAWAII

Prepared For

## **GROUP 70 INTERNATIONAL, INC.**

925 Bethel Street, 5<sup>th</sup> Floor  
Honolulu, Hawaii 96813

### **Phillip Rowell and Associates**

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January 28, 2002

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## **1. INTRODUCTION**

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Phillip Rowell and Associates has been retained by Group 70 International, to prepare a Traffic Impact Analysis Report (TIAR) for the proposed Aiea Town Center in the Aiea area of Honolulu, Hawaii. The purpose of this study is to determine the traffic impacts of the proposed project and to identify and assess potential mitigation measures.

This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

### **Project Location and Description**

The proposed project is a town center on the site of the old sugar mill in Aiea. The project will be located on a parcel bounded by the new Halewiliko Street on the south, Aiea Height Drive of the west and Kulawea Street on the east. The general location of the project on Oahu shown in Figure 1.

The project is summarized as follows:

1. Access to the site will be via two driveways along the north side of Halewiliko Street between Aiea Heights Drive and Kulawea Street. There will be pedestrian access through the project to Aiea Intermediate School.

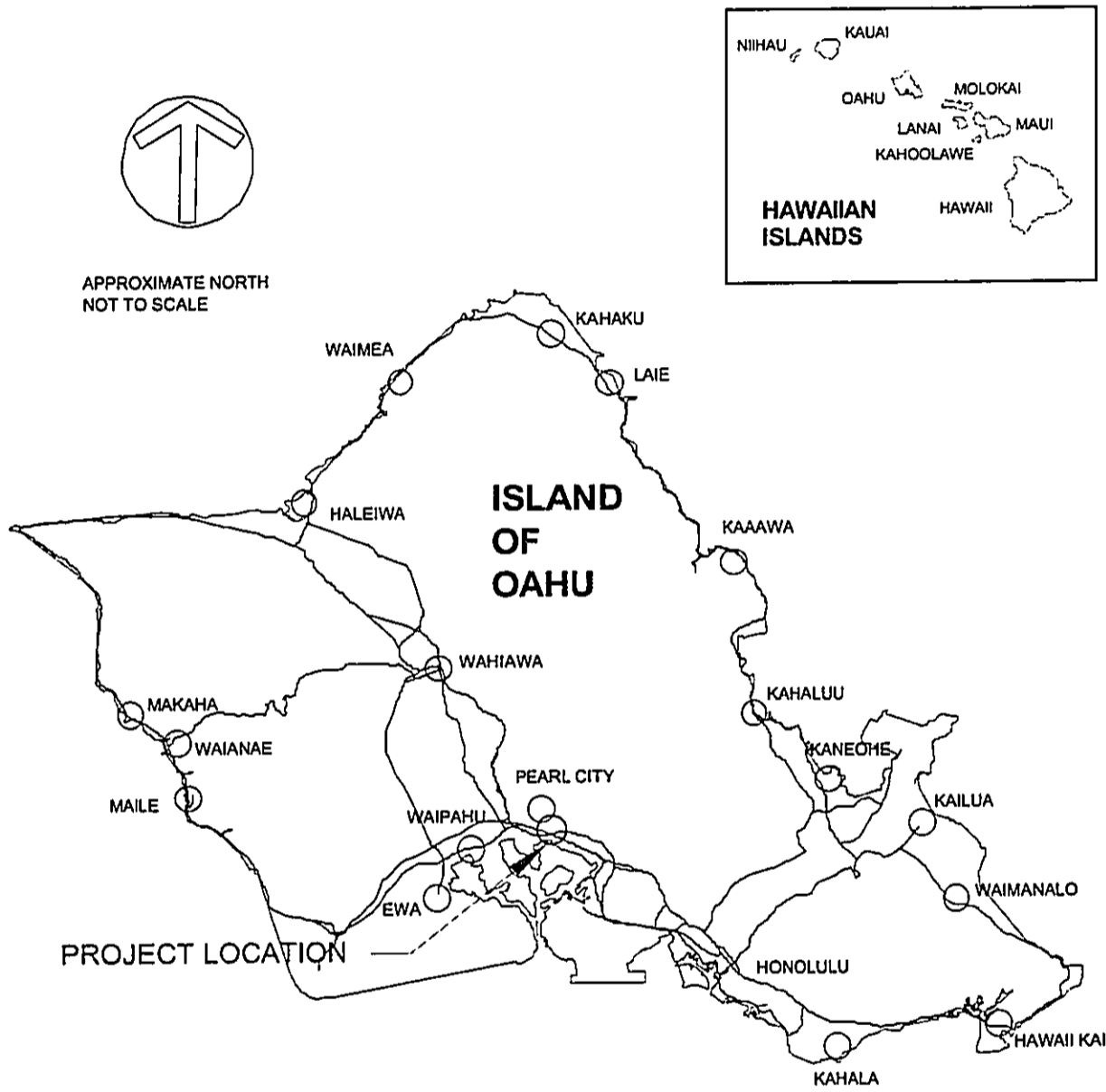


Figure 1

**PROJECT LOCATION MAP**

2. The project will contain the following uses:
  - a. A library (20,000 square feet)
  - b. Senior housing (140 units)
  - c. A daycare center (5,000 square feet)
  - d. Meeting rooms (6,600 square feet)
  - e. Art Center and Community Center (9,000 square feet)

### Study Methodology and Order of Presentation

#### 1. Analysis of Existing Traffic Conditions

Existing traffic volumes at the study intersections were determined from traffic counts performed during December 2001 and January 2002. Intersection configurations and traffic control information were also collected in the field at the time of the traffic counts. Other data collected included speed limits and right-of-way controls.

Using the data collected, existing traffic operating conditions in the vicinity of the project were determined. The methodology for signalized and unsignalized intersections, described in the 2000 *Highway Capacity Manual (HCM)*<sup>1</sup>, was used to determine the level-of-service (LOS) at the study intersections.

Existing traffic conditions, the LOS concept and the results of the LOS analysis for existing conditions are presented in Chapter 2.

#### 2. Determination of Cumulative Traffic Projections

The year 2005 was used as the design year. This does not necessarily represent the project completion date. It represents occupancy for purposes of conducting the impact analysis. Cumulative traffic conditions are defined as future traffic conditions during the design year without the proposed project. A description of the process used to estimate 2005 cumulative traffic volumes and the resulting cumulative traffic projections is presented in Chapter 3.

#### 3. Analysis of Project-Related Traffic Impacts

The next step in the traffic analysis was to estimate the peak-hour traffic that would be generated by the proposed project. This was done using standard trip generation procedures outlined in the *Trip Generation Handbook*<sup>2</sup> and *Trip Generation*<sup>3</sup>. The procedure is described in Chapter 4.

These trips were distributed based on the available approach and departure routes. The project-related traffic was then superimposed on 2005 cumulative traffic volumes at the study intersections. The HCM methodology was used again to conduct a LOS analysis for cumulative plus project conditions. The results of this analysis were compared to 2005 cumulative conditions to determine the incremental impacts of this project. The analysis of the project-related impacts and the conclusions of the analyses are presented in Chapter 5.

---

<sup>1</sup> *Highway Capacity Manual*, Institute of Transportation Engineers, Washington, D.C., 1997

<sup>2</sup> *Trip Generation Handbook*, Institute of Transportation Engineers, October 1998

<sup>3</sup> *Trip Generation*, Institute of Transportation Engineers, Washington, D.C., 1997

## **2. ANALYSIS OF EXISTING CONDITIONS**

---

This chapter presents the existing traffic conditions on the roadways adjacent to the proposed project. The level-of-service (LOS) concept and the results of the LOS analysis for existing conditions are also presented. The purpose of this analysis is to establish the base conditions for the determination of the impacts of the project which are described in a subsequent chapter.

### **Description of Existing Streets and Intersection Controls**

The following is summary of the major roadways in the study area:

#### *Halewiliko Street*

Halewiliko Street is an east-west street along the southern boundary of the project site. Halewiliko Street is a new roadway and runs between Kulawea Street on the east and Aiea Heights Drive on the west. The roadway is four lanes in width. No parking is allowed along either side. The posted speed limit is 25 miles per hour. At present, Halewiliko Street is closed to the general public. However, it is used for access to and egress from the Hawaiian Sugar Planters Association building.

Traffic signals have been installed at the intersection of Halewiliko Street at Aiea Height Drive but have not been turned on. The intersection operates as an unsignalized intersection.



*Ulune Street*

Ulune Street is also an east-west street. Ulune Street enters the study area from the east, terminates at an intersection with Aiea Heights Drive at a T-intersection. Ulune Street then continues again opposite an intersection with Halewiliko Street. Generally, Ulune Street is two-lanes wide.

The intersection of Ulune Street at Aiea Heights Drive is signalized. The intersection of Ulune Street at Aiea Heights Drive/Halewiliko Street operates as an unsignalized intersection, even though traffic signals have been installed.

*Aiea Heights Drive*

Aiea Heights Drive is a four-lane, two-way roadway along the western portion of the study area. Development along the east side is retail and development along the west side is mixed with commercial south of H1 and residential north of H1. The posted speed limit is 25 miles per hour.

*Moanalua Road*

Moanalua Road is a four-lane, east-west arterial along the southern portion of the study area. Moanalua Road also serves as a major exit for westbound traffic from H1 to Aiea. Adjacent development is commercial. There are separate left turn lanes and signals at major intersections. The posted speed limit is 25 miles per hour.

A schematic of the roadway network in the study area is shown on Figure 2.

**Existing Peak Hour Traffic Volumes**

The AM and PM peak hour traffic volumes at the study intersections are also shown in Figure 2. The traffic volumes include large trucks, buses and motorcycles. They do not include mopeds or bicycles.

These counts were performed during December 2001 and January 2002. The volumes shown may not match the volume of traffic at the adjacent intersection. This is because there are driveways serving businesses along all of the street and the peak hours of adjacent intersections may not coincide.

The adjacent schools were in session during the traffic surveys. Therefore, the morning peak hour traffic volumes shown include school related traffic. The afternoon counts were performed between 4 PM and 6 PM and, therefore, do not include school traffic. This means that the traffic volumes shown do not represent the peak hour traffic into and out of Kulawea Street. The volumes shown represent the peak hour traffic along Ulune Street.

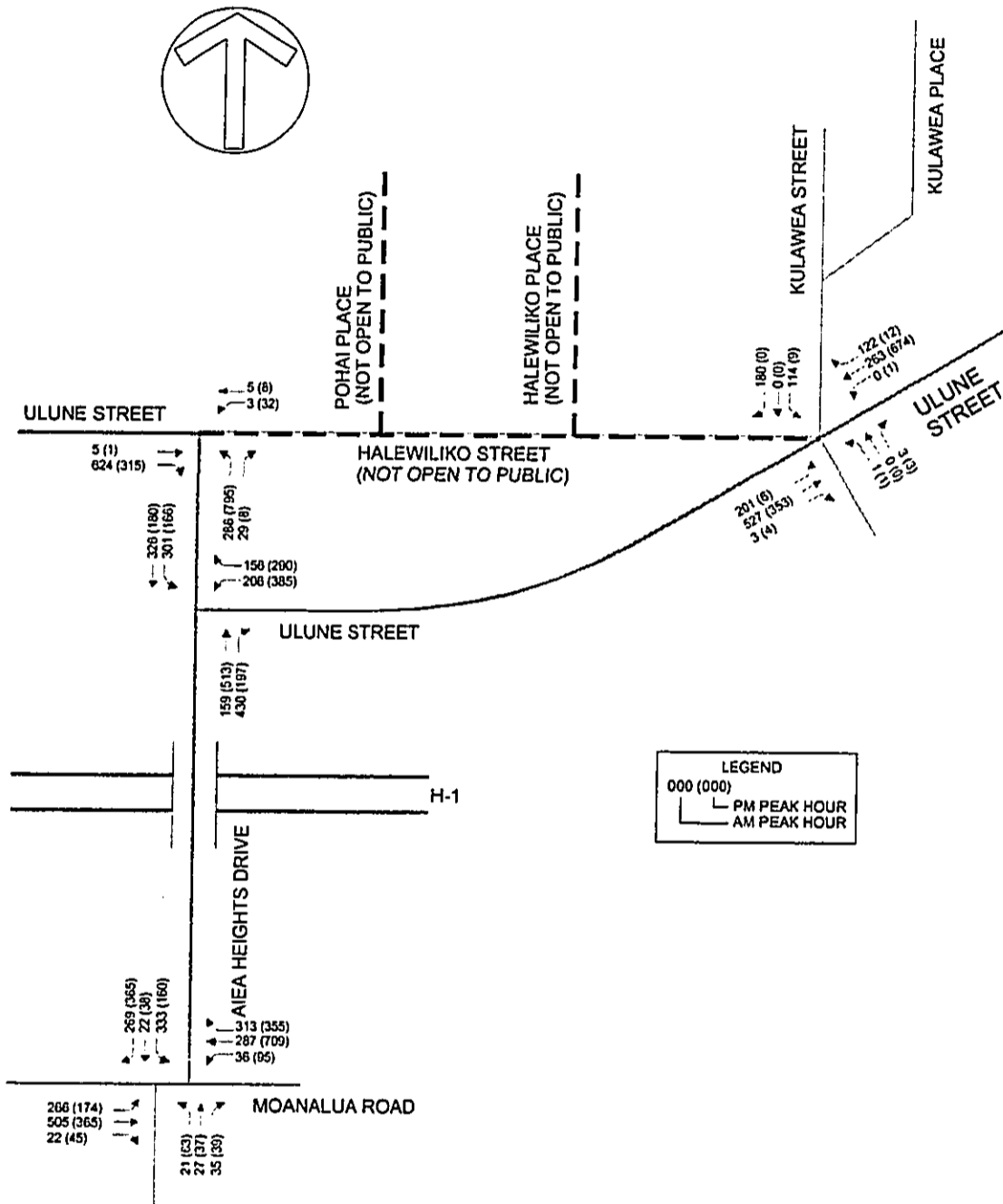


Figure 2

EXISTING (2001) PEAK HOUR TRAFFIC VOLUMES

**Level-of-Service Concept**

*Signalized Intersections*

The operations method described in the 2000 Highway Capacity Manual (HCM) was used to analyze the operating efficiency of the signalized intersections adjacent to the study site. This method involves the calculation of a volume-to-capacity (V/C) ratio and average vehicle delay which is related to a level-of-service.

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each level-of-service are summarized in Table 1. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.

Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

**Table 1 Level-of-Service Definitions for Signalized Intersections<sup>(1)</sup>**

Level of Service	Interpretation	Volume-to-Capacity Ratio <sup>(2)</sup>	Stopped Delay (Seconds)
A, B	Uncongested operations; all vehicles clear in a single cycle.	0.000-0.700	<15.0
C	Light congestion; occasional backups on critical approaches	0.701-0.800	15.1-25.0
D	Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation	>1.001	>60.0

Notes:

- (1) Source: Highway Capacity Manual, 2000.
- (2) This is the ratio of the calculated critical volume to Level-of-Service E Capacity.

*Unsignalized Intersections*

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a level-of-service from A to F. However, the method for determining level-of-service for unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps through which to execute a desired maneuver. The criteria for level-of-service at an unsignalized intersection is therefore based on delay of each turning movement. A subsequent calculation is performed to determine the overall level-of-service of the intersection. Table 2 summarizes the definitions for level-of-service and the corresponding delay.

**Table 2      Level-of-Service Definitions for Unsignalized Intersections<sup>(1)</sup>**

Level-of-Service	Expected Delay to Minor Street Traffic	Delay (Seconds)
A	Little or no delay	<5
B	Short traffic delays	5.1 to 10.0
C	Average traffic delays	10.1 to 20.0
D	Long traffic delays	20.1 to 30.0
E	Very long traffic delays	30.1 to 45.0
F	See note (2) below	>45.1

Notes:

(1) Source: *Highway Capacity Manual*, 2000.

(2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.

**Level-of-Service Analysis of Existing Conditions**

The results of the Level-of-Service analysis for the study intersections are shown in Table 3. Shown in the table are the volume-to-capacity ratios, the average vehicle delays and the levels-of-service.

**Table 3 Existing Levels-of-Service**

Intersection and Movement	AM Peak Hour			PM Peak Hour		
	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
<b>1. Ulune St/Halewilliko St at Kulawea St</b>		<b>39.6</b>	<b>C</b>		<b>13.4</b>	<b>B</b>
Eastbound Left	0.67	34.4	C	0.12	46.1	D
Eastbound Thru & Right	0.69	21.1	C	0.34	6.8	A
Westbound Left	0.00	41.1	D	0.02	45.2	D
Westbound Thru	0.71	36.1	D	0.79	15.4	B
Westbound Right	0.30	26.0	C	0.00	4.6	A
Northbound Left, Thru & Right	0.06	40.6	D	0.04	41.6	D
Southbound Left, Thru & Right	0.29	74.7	E	0.09	41.0	D
<b>2. Ukune St/Halewilliko St at Aiea Height Drive</b>		<b>Not Provided</b>			<b>Not Provided</b>	
Eastbound Thru & Right	Not Provided	8.1	A	Not Provided	9.7	A
Westbound Thru & Left	Provided	15.6	B		26.0	D
<b>3. Ulune Street at Aiea Heights Drive</b>		<b>14.3</b>	<b>B</b>		<b>23.0</b>	<b>C</b>
Westbound Left	0.51	26.3	C	0.86	40.4	D
Westbound Right	0.36	24.6	C	0.66	28.3	C
Northbound Thru	0.19	7.7	A	0.64	15.2	B
Northbound Right	0.46	10.6	B	0.14	8.6	A
Southbound Left	0.59	14.1	B	0.64	21.9	C
Southbound Thru	0.38	9.5	A	0.22	9.3	A
<b>4. Moanalua Road at Aiea Heights Drive</b>		<b>47.5</b>	<b>D</b>		<b>63.7</b>	<b>E</b>
Eastbound Left	0.55	27.1	C	0.58	35.0	D
Eastbound Thru & Right	0.41	14.9	B	0.36	16.0	B
Westbound Left	0.62	69.8	E	0.81	66.1	E
Westbound Thru	0.54	35.5	D	0.63	26.1	C
Westbound Right	0.95	77.3	E	0.61	28.3	C
Northbound Left, Thru & Right	0.70	59.2	E	0.78	52.3	D
Southbound Left	0.58	37.0	D	0.50	33.9	C
Southbound Left, Thru & Right	1.09	108.0	F	1.43	247.9	F

NOTES:

- (1) V/C denotes volume-to-capacity ratio. The V/C ratio is not calculated for unsignalized intersections.
- (2) Delay is average vehicle delay per vehicle in seconds.
- (3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

The results of the level-of-service analysis are consistent with conditions observed during the traffic surveys. The conclusions of the level-of-service for existing conditions are:

1. At the intersection of Ulune Street at Kulawea Street, the northbound and southbound approaches experience significant delays resulting in a poor level-of-service. However, the volume-to-capacity ratios are very low, indicating that the delay is the result of the traffic signal cycle length and not heavy traffic conditions. The southbound approach also experiences congestions as a result of school related traffic.
2. At the intersection of Ulune Street/Halewiliko Street at Aiea Heights Drive, westbound left turns are delayed such that the total approach operates at level-of-service D. This will be corrected when the traffic signals are turned on.
3. The intersection of Ulune Street at Aiea Heights Drive operates well overall. The westbound left turns operate at level-of-service D during the afternoon peak hour. All other movements operate at level-of-service C or better during both morning and afternoon peak hours. There were occasional backups of traffic into the intersection caused by traffic turning into driveways along Aiea Heights Drive.
4. The intersection of Moanalua Road at Aiea Heights Drive operates at level-of-service D during the morning and E during the afternoon. The southbound left turns operates at level-of-service F during both peak periods. Traffic using the left turn lanes is typically backed up resulting in the long delays. This lane is also congested as a result of traffic turning left into and out of the shopping center.

### **3. PROJECTED CUMULATIVE TRAFFIC CONDITIONS**

The purpose of this chapter is to discuss the assumptions and data used to estimate 2005 cumulative traffic conditions. Cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects. Cumulative traffic volumes do not include traffic generated by the proposed project.

Cumulative traffic volumes are the result of background growth, which cannot be attributed to a specific project, and traffic generated by projects in the vicinity of the proposed project. Related projects include development and redevelopment projects and roadway improvement projects.

#### **Design Year**

The year 2005 was selected as the design year for this traffic impact analysis. The design year is not necessarily the year of completion for the project. It represents a time period when the project has been completed and is fully occupied. It also represents a date for which background traffic conditions can be estimated.

#### **Background Traffic Growth**

Background traffic growth was estimated from data provided by the *2020 Oahu Regional Transportation Plan*.<sup>4</sup> Travel estimates from the Plan concluded that traffic would increase an average of 1.6% per year until the year 2020. Therefore, the growth factor for 2002 to 2005 would be 1.05. This growth factor was calculated using the following formula for compounded interest:

---

<sup>4</sup> Kaku Associates, Inc., *Oahu Regional Transportation Plan*, November 1995

$$F = (1 + i)^n$$

where  $i$  = average annual growth rate  
 $n$  = years (2002 to 2005)

This growth factor was applied to all traffic movements at the study intersections.

### Related Projects

Related projects are projects that are either under construction or likely to be completed before the design year that will impact traffic conditions at the study intersections.

The only potential related project identified was a 12-unit residential along Kulawea Street. Traffic that this project would generate was estimated using trip generation rates for single-family detached housing and distributed to the traffic movements at the study intersections.

In addition to the related residential development, Halewiliko Street is expected to be opened and the traffic signals at the intersection of Ulune Street/Halewiliko Street at Aiea Heights Drive turned on. The plan is to cul-de-sac Ulune Street west of Kulawea Street. Thus, the intersection would be a four-legged intersection with Ulune Street as the east leg, Halewiliko Street as the west leg, and Kulawea Street as the north and south legs.

There is also an alternative plan to retain Ulune Street as a through street. Therefore, when Halewiliko Street is opened, the intersection would be a five-legged one.

### 2005 Cumulative Traffic Volumes

Estimated 2005 cumulative traffic volumes were calculated for two scenarios, which are described as follows:

#### Scenario 1

Scenario 1 is the original plan, which includes the opening of Halewiliko Street between Kulawea Street and Aiea Heights Drive, turning on the traffic signals at the intersection of Ulune Street and Halewiliko Street at Aiea Heights Drive, and the installation of a cul-de-sac on Ulune Street west of Kulawea Street. The intersection of Ulune Street and Halewiliko Street at Kulawea Street would be a four-legged intersection.

#### Scenario 2

Scenario 2 includes the opening of Halewiliko Street and turning on of the traffic signals. Ulune Street will be retained as a through street. The intersection of Ulune Street and Halewiliko Street at Kulawea Street will be a five-legged intersection.

The resulting 2005 cumulative peak hour traffic projections are shown in Figures 3 and 4.



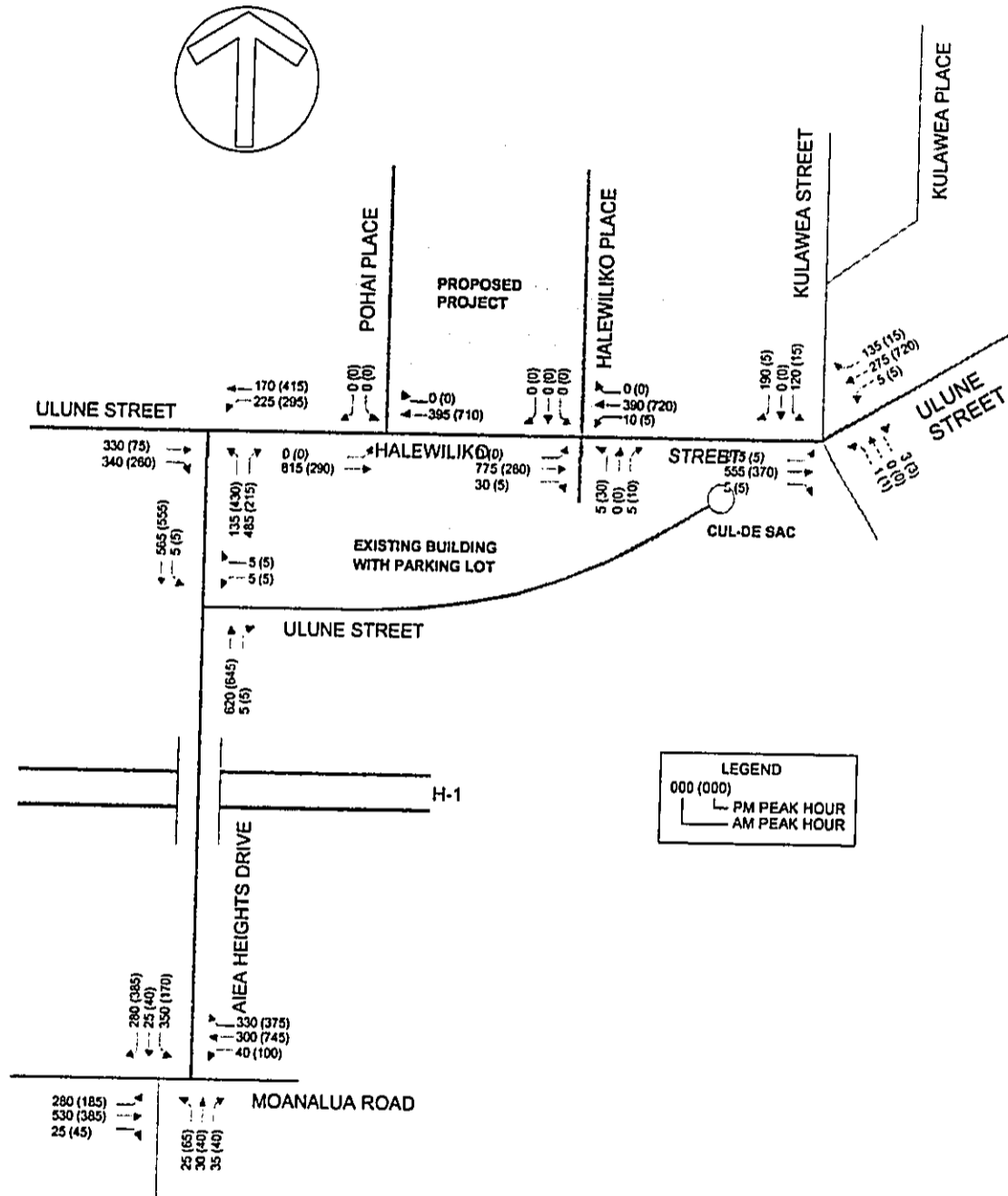


Figure 3  
2005 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES - SCENARIO 1

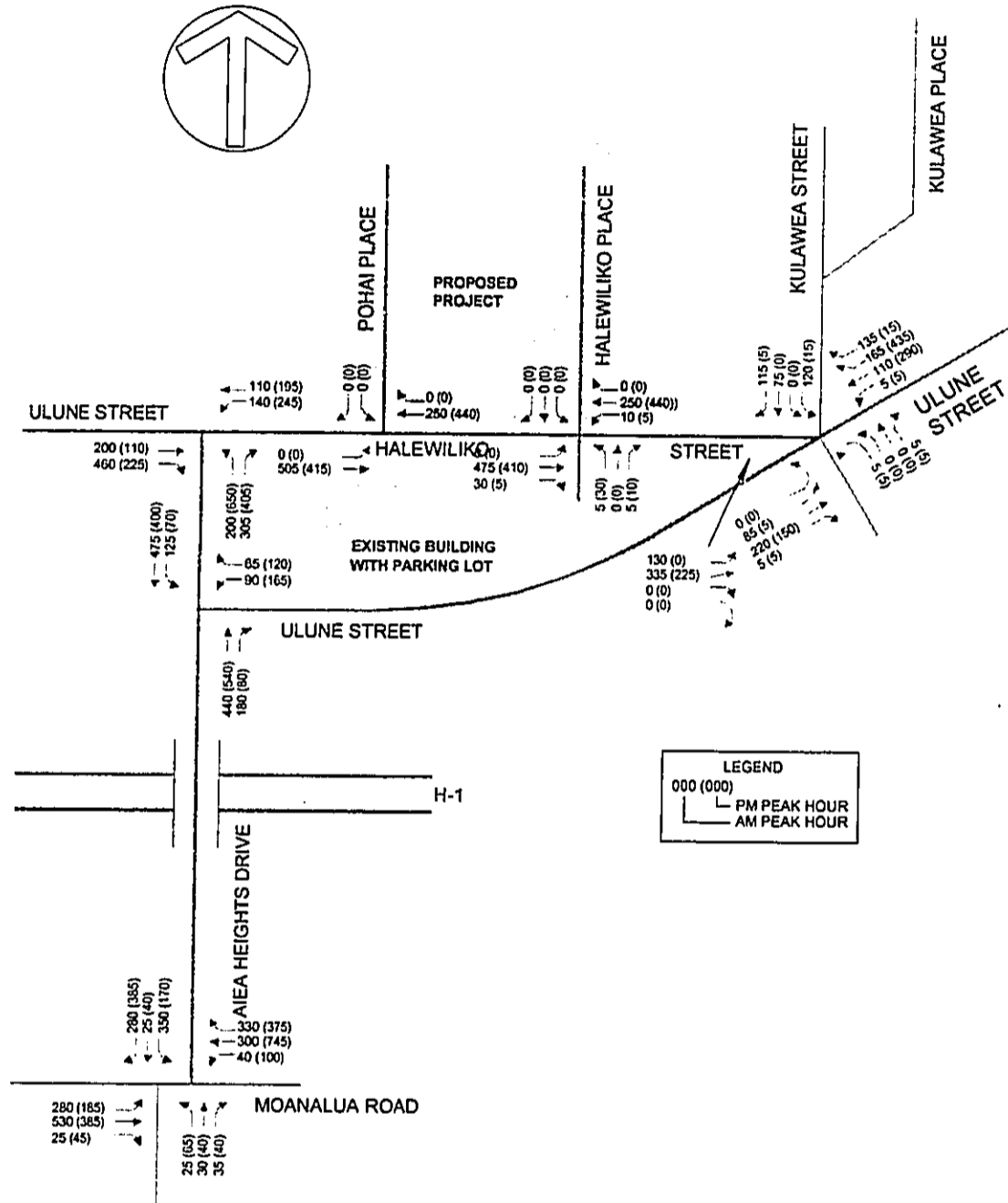


Figure 4

2005 CUMULATIVE PEAK HOUR TRAFFIC VOLUMES - SCENARIO 2

## **4. PROJECT-RELATED TRAFFIC CONDITIONS**

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This chapter discusses the methodology used to identify the traffic-related impacts of the proposed project. Generally, the process involves the estimation of weekday peak-hour trips that would be generated by the proposed project, distribution and assignment of these trips on the approach and departure routes, and finally, determination of the levels-of-service at affected intersections and driveways subsequent to implementation of the project. This chapter presents the generation, distribution and assignment of project generated traffic and the cumulative plus project traffic projections. The results of the level-of-service analysis of cumulative plus project conditions is presented in the following chapter.

### **Project Trip Generation**

Future traffic volumes generated by a project were estimated using the procedures described in the *Trip Generation Handbook*,<sup>5</sup> published by the Institute of Transportation Engineers. This methodology uses trip generation rates to estimate the number of trips that a proposed project will generate during the morning and afternoon peak hours.

The trip generation calculations were performed using the following assumptions:

1. In order to estimate worse-case conditions, all facilities are in use concurrently.
2. The peak hours of each of the proposed uses coincides with the peak hours of the adjacent street.

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<sup>5</sup> Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 1998, p. 7-12

3. The size of the library is 20,000 square feet. Trips were estimated using trip generation rates for libraries (Land Use Code 590) provided by the Institute of Transportation Engineers.
4. For the senior housing, trips were estimated using trip rates for elderly housing - attached (Land Use Code 253, provided by the Institute of Transportation Engineers. There will be 140 units.
5. Trip generated by the day care was estimated using trip generation rates for day care facilities (Land Use Code 565) provided by the Institute of Transportation Engineers. The day care facility will be 5,000 square feet.
6. For the meeting rooms (6,600 square feet) and the art center and community center (9,000 square feet), trips were estimated based on the parking requirements of meeting facilities specified in the Land Use Ordinance of the City and County of Honolulu. The Land Use Ordinance requires 1 space per 75 square feet. It was assumed that 80 percent of the floor area is useable, that 50 percent of the vehicles arrive and depart during the peak hour, and that the inbound/outbound directional split is 85/15 and 15/85 during the morning and afternoon peak hours respectively. These assumptions result in the trip generation rates shown in Table 4.

The trip rates and the estimated number of peak hour trips that the proposed project will generate are shown in Table 4. The trips shown are the peak hourly trips generated by the project during the peak hour of the adjacent street. As shown in the table, the proposed town center will generate 180 trips during the morning peak hour and 310 trips during the afternoon peak hour.

**Table 4 Trip Generation Summary of Proposed Project**

Time Period	Direction	Library		Senior Housing		Day Care		Meeting Rooms		Art & Community Centers		Total New Trips
		20,000	SF	140	Units	5,000	SF	6,600	SF	9,000	SF	
		Rate or Factor <sup>(1)</sup>	Peak Hour Trips	Rate or Factor <sup>(2)</sup>	Peak Hour Trips	Rate or Factor <sup>(3)</sup>	Peak Hour Trips	Rate or Factor <sup>(4)</sup>	Peak Hour Trips	Rate or Factor <sup>(4)</sup>	Peak Hour Trips	
AM Peak Hour	Total	1.06	21	0.06	8	13.50	68	5.30	35	5.30	48	180
	% In	72%	15	50%	4	53%	36	85%	30	85%	41	126
	% Out	28%	6	50%	4	47%	32	15%	5	15%	7	54
PM Peak Hour	Total	7.09	142	0.11	15	13.94	70	5.30	35	5.30	48	310
	% In	48%	68	53%	8	47%	33	15%	5	15%	7	121
	% Out	52%	74	47%	7	53%	37	85%	30	85%	41	189

NOTE:

- (1) Trip rates are for Library, Land Use Code 590
- (2) Trip rates are for Senior Housing - Attached, Land Use Code 253
- (3) Trip rates are for Day Care, Land Use Code 565
- (4) See text for calculation of trip rates

**Trip Distribution and Assignments**

The project-related trips were distributed and assigned based on the available approach and departure routes. The resulting trip assignments are shown on Figure 5. Note that the project trip assignments are the same for Scenarios 1 and 2

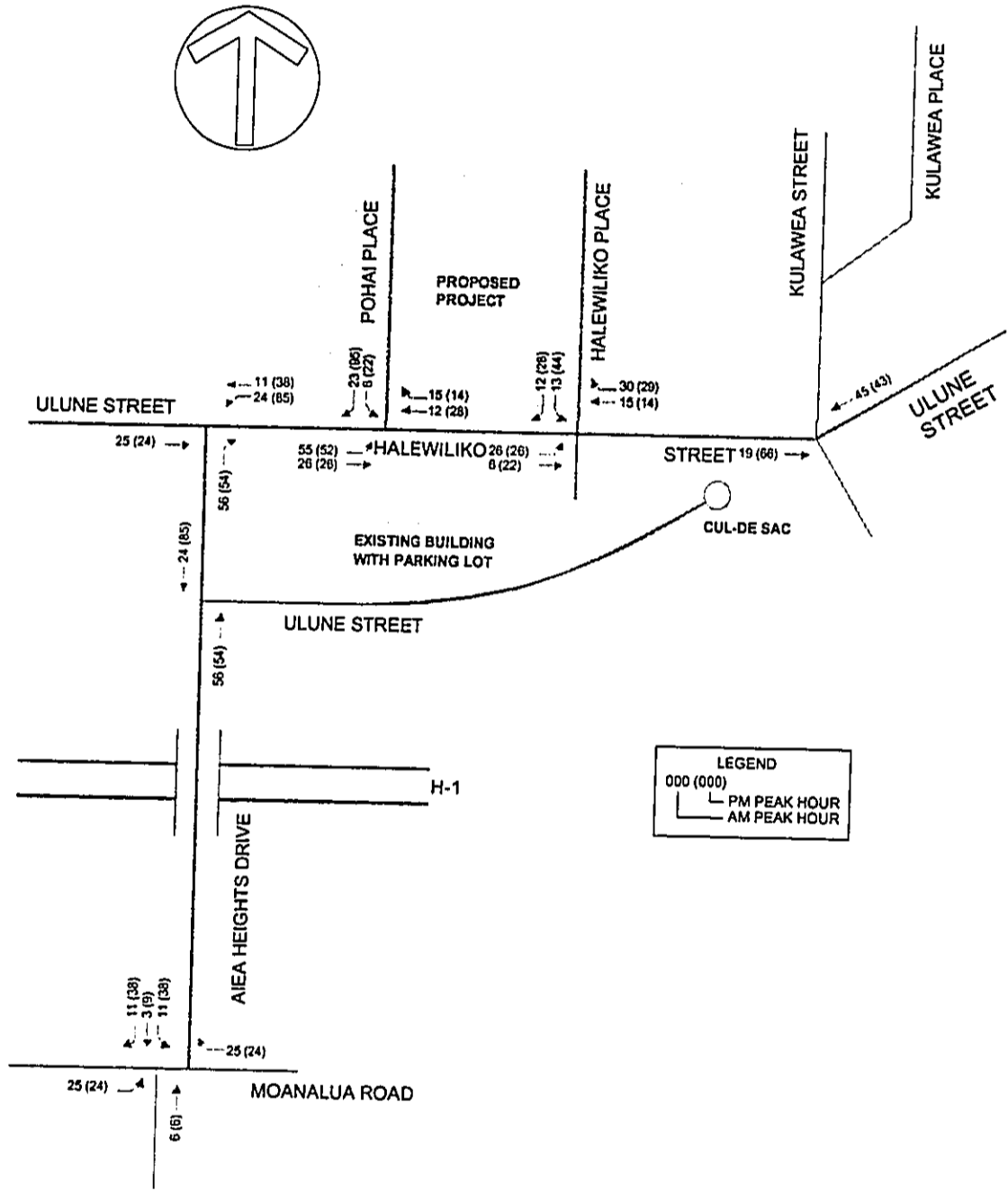


Figure 5  
PROJECT TRIP ASSIGNMENTS

**2005 Cumulative Plus Project Projections**

Cumulative plus project traffic conditions are defined as 2005 background traffic conditions plus project related traffic. The incremental difference between cumulative and cumulative plus project is the traffic impact of the project under study.

2005 cumulative plus project traffic volumes with the project were estimated by superimposing the peak hourly traffic generated by the proposed project on the 2005 cumulative peak hour traffic volumes presented in Chapter 3. Thus, the calculations represent conditions where the peak hour of the project coincides with the peak hour of the adjacent street. The traffic projections for 2005 cumulative plus project conditions are shown on Figures 6 and 7.

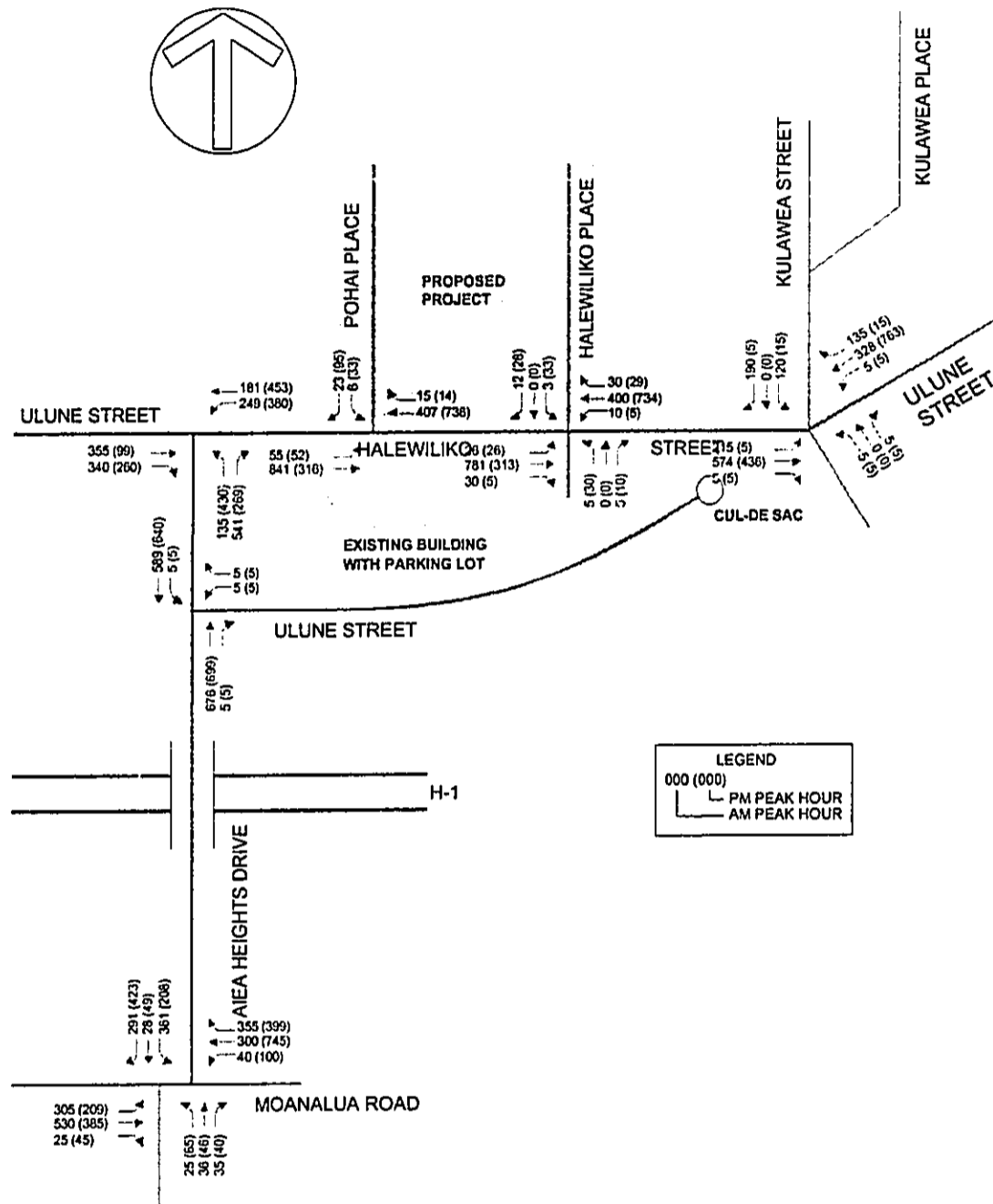


Figure 6

**2005 CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES FOR SCENARIO 1**

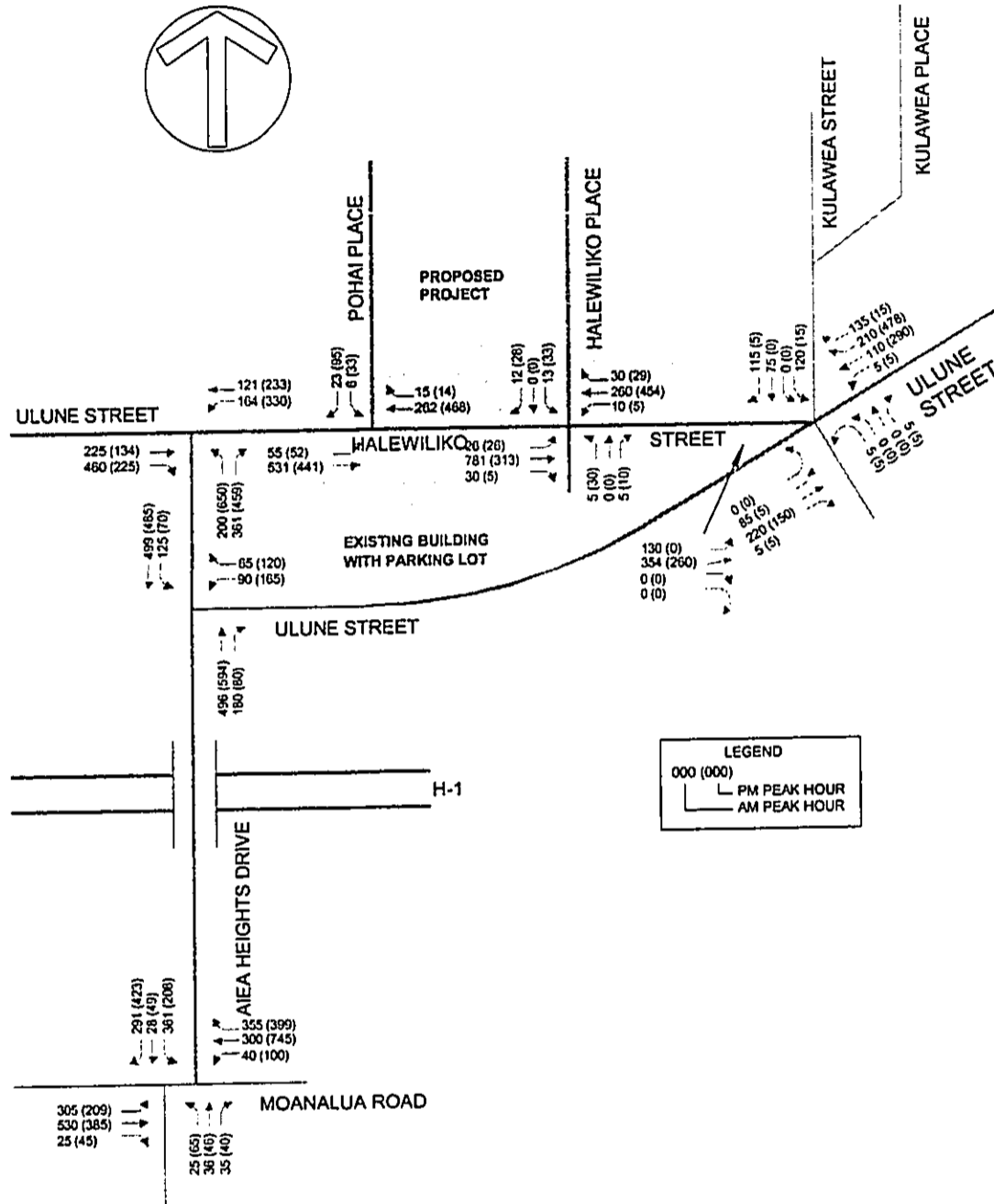


Figure 7

2005 CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES FOR SCENARIO 2



## 5. CONCLUSIONS AND RECOMMENDATIONS

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The purpose of this chapter is to summarize the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

### Definition of Significant Impacts

Since there is no local criteria defining a significant traffic impact, criteria for determining if a project has a significant traffic impact for which mitigation measures must be identified used by Los Angeles Department of Transportation was used for this study. The following criteria is used to define a significant impact for a signalized intersection:

**Table 5** Definition of a Significant Traffic Impact<sup>(1)</sup>

<u>Final V/C Ratio</u>	<u>Project Related Increase in V/C</u>
0.700-0.800	equal to or greater than 0.040
0.800 - 0.900	equal to or greater than 0.020
> 0.900	equal to or greater than 0.010

NOTES:

- (1) Los Angeles Department of Transportation, *Traffic Study Policies and Procedures*, 1993, page 10

There are no similar criteria for unsignalized intersections. The *Traffic Study Policies and Procedures* suggest that (1) unsignalized intersections be analyzed assuming signalized conditions so that intersections are evaluated using comparable criteria and (2) the volume-to-capacity ratio for the overall intersection, rather than each traffic movement, is used to evaluate the intersection.

In calculating the volume-to-capacity ratio for the overall intersection, deficient traffic movements may be overlooked because poor and good levels-of-service may balance, resulting in an acceptable level-of-service. Therefore, the criteria shown in Table 5 is used to define a significant impact for each traffic movement as well as the overall intersection.

Lastly, it should be noted that the criteria shown in Table 5 were developed before the latest revision to the Highway Capacity Manual, which now defines level-of-service based on delay rather than volume-to-capacity ratio. We have determined that the *Traffic Policies and Procedures* are currently be revised.

#### **Project Related Traffic Impacts - Scenario 1**

The traffic impact of the proposed project was assessed by analyzing the amount that the volume-to-capacity ratio changes at the study intersections. The level-of-service analysis was performed using the following assumptions:

1. The level-of-service analysis was performed for Scenario 1, which is the plan to install a cul-de-sac along Ulune Street west of Kulawea Street. The traffic impacts of Scenario 2 is discussed in a separate section of this chapter.
2. The traffic signal timing was optimized for cumulative and cumulative plus project conditions.
3. The lane configurations used are shown in Figure 8.

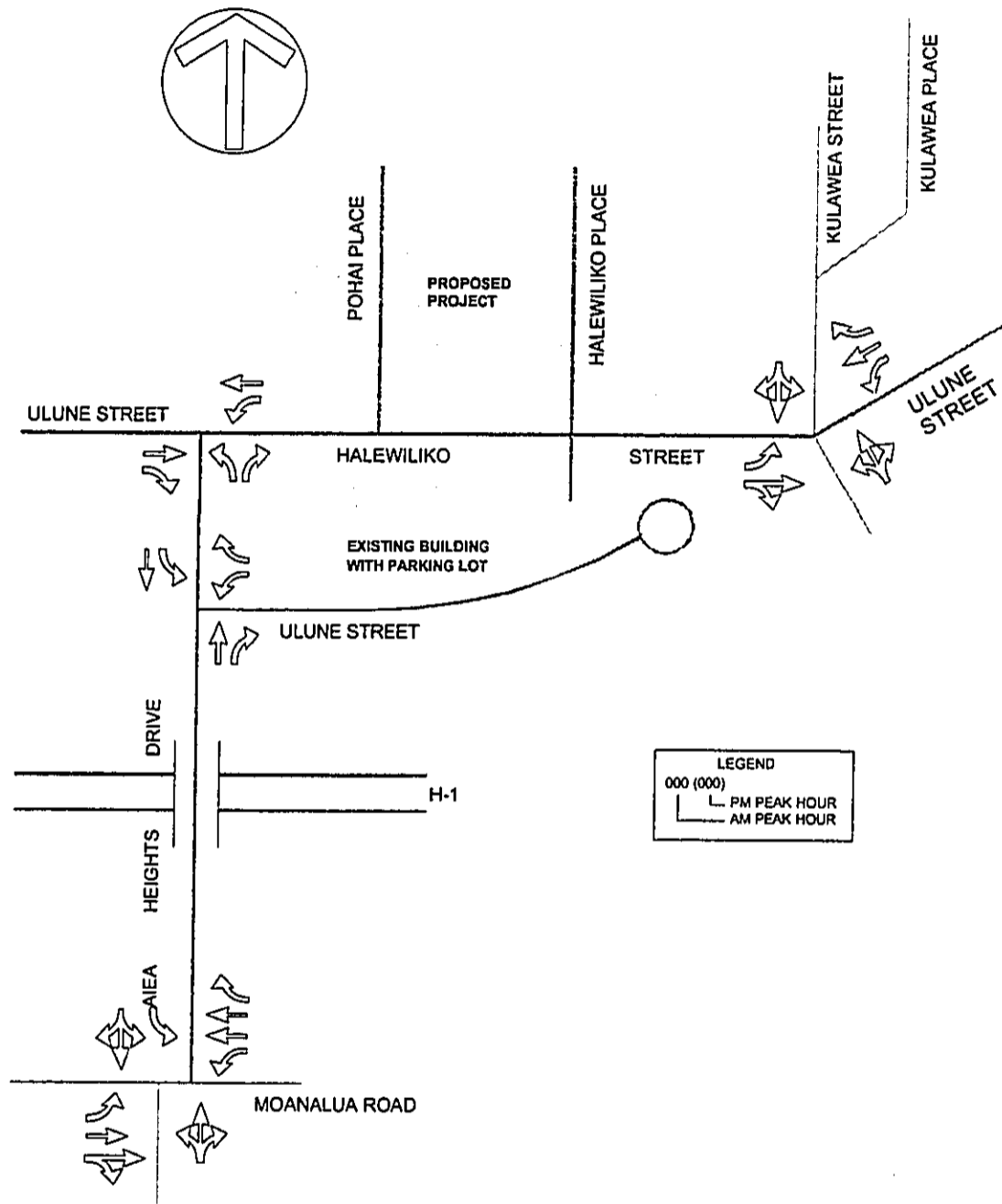


Figure 8

**LANE CONFIGURATION USED FOR LEVEL-OF-SERVICE ANALYSIS  
(FOR SCENARIO 1)**

*Ulune Street/Halewiliko Street at Kulawea Street*

The results of the level-of-service analysis for the intersection of Ulune Street/Halewiliko Street at Kulawea Street are shown in Table 6. Shown in the table are volumes, volume-to-capacity ratios, average vehicle delay and the level-of-service as defined using the average vehicle delay, for cumulative and cumulative plus project.

**Table 6 Future Levels-of-Service - Ulune Street/Halewiliko Street at Kulawea Street**

Time Period	Intersection and Movement	Cumulative				Cumulative Plus Project				Changes	
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C
	<b>Total</b>									0	0.00
AM Peak Hour	Eastbound Left	215	0.71	51.1	D	215	0.71	51.1	D	0	0.00
	Eastbound Thru & Right	560	0.79	35.0	C	579	0.81	36.7	D	19	0.02
	Westbound Left	5	0.04	52.3	D	5	0.04	52.3	D	0	0.00
	Westbound Thru	275	0.74	48.0	D	320	0.86	57.4	E	45	0.12
	Westbound Right	135	0.34	35.7	D	135	0.34	35.7	D	0	0.00
	Northbound Left, Thru & Right	10	0.21	66.7	E	10	0.21	66.7	E	0	0.00
	Southbound Left, Thru & Right	210	0.93	66.5	E	210	0.93	66.5	E	0	0.00
	<b>Total</b>									0	0.00
PM Peak Hour	Eastbound Left	5	0.04	40.6	D	5	0.04	40.6	D	0	0.00
	Eastbound Thru & Right	375	0.38	8.3	A	452	0.45	9.2	A	77	0.07
	Westbound Left	5	0.04	40.5	D	5	0.04	40.5	D	0	0.00
	Westbound Thru	720	0.88	22.7	C	763	0.93	28.5	C	43	0.05
	Westbound Right	15	0.02	5.6	A	15	0.02	5.6	A	0	0.00
	Northbound Left, Thru & Right	10	0.11	45.0	D	10	0.11	45.0	D	0	0.00
	Southbound Left, Thru & Right	20	0.27	49.2	D	20	0.27	49.2	D	0	0.00

NOTES

- (1) V/C denotes volume-to-capacity ratio.
- (2) Delay is average vehicle delay per vehicle in seconds.
- (3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

The conclusions of the level-of-service analysis are:

1. During the morning peak hour, the volume-to-capacity ratio of the westbound through movement will change from 0.74 to 0.86, which is significant. The impact of project traffic on all the remaining traffic movements is negligible or insignificant.
2. During the afternoon peak hour, the volume-to-capacity of the westbound through movement will change from 0.88 to 0.93, which is also significant.
3. During the morning and afternoon peak periods, the northbound and southbound approaches operate at level-of-service E and D, without and with the project. The proposed project has no impact on these approaches because the project does not add traffic to these traffic movements.
4. As mitigation, it is recommended that the westbound approach be modified to provide a through lane and an optional through or right turn lane. This can be provided since the new Halewiliko Street is two lanes wide.

*Ulune Street/Halewiliko Street at Aiea Height Drive*

The results of the level-of-service analysis for the intersection of Ulune Street/Halewiliko Street at Aiea Heights Drive is shown in Table 7. All traffic movements are expected to operate at level-of-service C or better, without and with the proposed project. However, the impact of project generated traffic on the westbound left turn is significant. During the morning and afternoon peak periods, the volume-to-capacity ratio changes by 0.12 and 0.19, respectively, which is significant.

As mitigation, it is recommended that a separate westbound left turn phase be installed.

**Table 7 Future Levels-of-Service - Ulune Street/Halewiliko Street at Aiea Heights Drive**

Time Period	Intersection and Movement	Cumulative				Cumulative Plus Project				Changes	
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C
	<b>Total</b>									0	0.00
AM Peak Hour	Eastbound Left	330	0.39	10.0	A	355	0.42	10.3	B	25	0.03
	Eastbound Right	340	0.39	10.2	B	340	0.39	10.2	b	0	0.00
	Westbound Left	225	0.63	17.4	b	249	0.75	24.2	C	24	0.12
	Westbound Thru	170	0.20	8.3	A	181	0.21	8.4	A	11	0.01
	Northbound Left	135	0.23	13.8	B	135	0.23	13.8	B	0	0.00
	Northbound Right	485	0.74	24.3	C	541	0.75	24.8	C	56	0.01
	<b>Total</b>									0	0.00
PM Peak Hour	Eastbound Left	260	0.28	7.4	A	260	0.28	7.4	A	0	0.00
	Eastbound Right	75	0.02	5.8	a	99	0.05	6.0	A	24	0.03
	Westbound Left	295	0.63	11.1	B	380	0.82	23.3	C	85	0.19
	Westbound Thru	415	0.45	9.0	A	453	0.49	9.5	A	38	0.04
	Northbound Left	430	0.85	33.7	C	430	0.85	33.7	C	0	0.00
	Northbound Right	215	0.34	17.7	B	269	0.46	19.5	B	54	0.12

NOTES  
(1) V/C denotes volume-to-capacity ratio.  
(2) Delay is average vehicle delay per vehicle in seconds.  
(3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

*Ulune Street at Aiea Heights Drive*

The results of the level-of-service analysis for the intersection of Ulune Street at Aiea Heights Drive is shown in Table 8. Project generated traffic has an insignificant impact of the volume-to-capacity ratios at this intersections. This is because the cul-de-sac west of Kulawea Street prohibits through traffic. The westbound approach serves only the residences between Kulawea Street and Aiea Heights Drive. All project related traffic uses the northbound and southbound approaches only. This change also allows the northbound approach to be modified from a separate through and right turn lanes to two through lanes with the right hand lane as an optional through or right turn lane.

No mitigation is required at this intersection.

**Table 8 Future Levels-of-Service - Ulune Street at Aiea Heights Drive**

Time Period	Intersection and Movement	Cumulative				Cumulative Plus Project				Changes	
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C
	<b>Total</b>									0	0.00
AM Peak Hour	Westbound Left	5	0.03	36.0	D	5	0.03	36.0	D	0	0.00
	Westbound Right	5	0.04	36.1	D	5	0.04	36.1	D	0	0.00
	Northbound Thru & Right	625	0.29	2.2	A	681	0.32	2.2	A	56	0.03
	Southbound Left	5	0.01	1.5	A	5	0.01	1.5	A	0	0.00
	Southbound Thru	565	0.50	3.7	A	589	0.52	3.9	A	24	0.02
	<b>Total</b>									0	0.00
PM Peak Hour	Westbound Left	5	0.03	35.8	D	5	0.03	35.8	D	0	0.00
	Westbound Right	5	0.00	35.6	D	5	0.04	35.8	D	0	0.04
	Northbound Thru & Right	650	0.30	2.2	A	704	0.33	2.3	A	54	0.03
	Southbound Left	5	0.01	1.5	A	5	0.01	1.5	A	0	0.00
	Southbound Thru	555	0.49	3.6	A	640	0.57	4.3	A	85	0.08

NOTES  
(1) V/C denotes volume-to-capacity ratio. The V/C ratio is not calculated for unsignalized intersections.  
(2) Delay is average vehicle delay per vehicle in seconds.  
(3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

Moanalua Road at Aiea Heights Drive

The results of the level-of-service analysis for the intersection of Moanalua Road at Aiea Height Drive is shown in Table 9.

**Table 9 Future Levels-of-Service - Moanalua Road at Aiea Heights Drive**

Time Period	Intersection and Movement	Cumulative				Cumulative Plus Project				Changes	
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C
	<b>Total</b>									0	0.00
AM Peak Hour	Eastbound Left	280	0.91	57.3	E	305	0.99	74.2	E	25	0.08
	Eastbound Thru & Right	555	0.50	16.9	B	555	0.50	16.9	B	0	0.00
	Westbound Left	40	0.58	54.0	D	40	0.58	54.0	D	0	0.00
	Westbound Thru	300	0.42	24.0	C	300	0.42	24.0	C	0	0.00
	Westbound Right	330	0.77	39.1	D	355	0.77	39.1	D	25	0.00
	Northbound Left, Thru & Right	90	0.89	82.7	F	96	0.95	93.7	F	6	0.06
	Southbound Left	350	0.49	25.4	C	361	0.50	25.7	C	11	0.01
	Southbound Left, Thru & Right	305	0.93	54.3	D	319	0.94	54.7	D	14	0.01
	<b>Total</b>									0	0.00
PM Peak Hour	Eastbound Left	185	0.66	64.4	E	209	0.75	70.0	E	24	0.09
	Eastbound Thru & Right	430	0.49	37.2	D	430	0.49	37.2	D	0	0.00
	Westbound Left	100	0.67	75.2	E	100	0.67	75.2	E	0	0.00
	Westbound Thru	745	0.82	54.1	D	745	0.82	54.1	D	0	0.00
	Westbound Right	375	0.80	60.7	E	399	0.80	60.7	E	24	0.00
	Northbound Left, Thru & Right	145	1.03	138.9	F	151	1.07	150.0	F	6	0.04
	Southbound Left	170	0.29	35.6	D	208	0.36	37.0	D	38	0.07
	Southbound Left, Thru & Right	425	0.85	59.0	E	472	0.86	60.3	E	47	0.01

NOTES

- (1) V/C denotes volume-to-capacity ratio. The V/C ratio is not calculated for unsignalized intersections.
- (2) Delay is average vehicle delay per vehicle in seconds.
- (3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

The conclusions of the level-of-service analysis are:

1. During the morning and afternoon peak hour, project generated traffic will have a significant impact on the eastbound left turns. The level-of-service will be E without and with project generated traffic. Improvement of the intersection to provide a second left turn lane is not practical because of adjacent development. Therefore, the impact of project traffic on this movement can not be mitigated.
2. The project will also have a significant impact on the northbound approach. The level-of-service will be D during the morning peak hour, without and with the project, and E during the afternoon peak hour, without and with the project. The approach width prohibits widening. Therefore, the traffic impact on this approach can not be mitigated.

**Mitigation Measures - Scenario 1**

Mitigation measures have been recommended for the intersections of Ulune Street/Halewiliko Street at Kulawea Street and Ulune/Street/Halewiliko Street at Aiea Height Drive.

The recommended improvement for the intersection of Ulune Street/Halwiliko Street at Kulawea Street is to modify the westbound approach so that the outside lane will be an optional through or right turn lane. The results of this improvement is summarized in Table 10. The recommended improvement will improve the volume-to-capacity ratio for the westbound through and right turn movements from 0.86 to 0.62 during the afternoon peak hour and from 0.88 to 0.49 during the afternoon peak hour.

**Table 10 Levels-of-Service with Mitigation - Ulune Street/Halewiliko Street at Kulawea Street**

Time Period	Intersection and Movement	Without Mitigation				With Mitigation			
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
	<i>Total</i>								
AM Peak Hour	Eastbound Left	215	0.71	51.1	D	215	0.71	51.1	D
	Eastbound Thru & Right	579	0.81	36.7	D	579	0.81	36.7	D
	Westbound Left	5	0.04	52.3	D	5	0.04	52.3	D
	Westbound Thru	320	0.86	57.4	E	320	0.62	40.4	D
	Westbound Right	135	0.34	35.7	D	135	0.62	40.4	D
	Northbound Left, Thru & Right	10	0.21	66.7	E	10	0.21	66.7	E
	Southbound Left, Thru & Right	210	0.93	66.5	E	210	0.93	66.5	E
	<i>Total</i>								
PM Peak Hour	Eastbound Left	5	0.04	40.6	D	5	0.04	40.6	D
	Eastbound Thru & Right	452	0.45	9.2	A	462	0.45	9.2	A
	Westbound Left	5	0.04	40.5	D	5	0.04	40.5	D
	Westbound Thru	763	0.93	28.5	C	763	0.50	9.1	A
	Westbound Right	15	0.02	5.6	A	15	0.50	9.1	A
	Northbound Left, Thru & Right	10	0.11	45.0	D	10	0.11	45.0	D
	Southbound Left, Thru & Right	20	0.27	49.2	D	20	0.27	49.2	D

NOTES

- (1) V/C denotes volume-to-capacity ratio.
- (2) Delay is average vehicle delay per vehicle in seconds.
- (3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.



The improved levels-of-service that result from the modification of the traffic signals at Ulune Street/Halewillko Street at Aiea Heights Drive are summarized in Table 11. As shown, the volume-to-capacity ratio for the westbound approach with the project is better than the volume-to-capacity ratio for the with project condition. The volume-to-capacity ratio for the eastbound approach increases, but the level-of-service is B or better for cumulative plus project conditions.

**Table 11 Levels-of-Service with Mitigation - Ulune Street/Halewillko Street at Aiea Heights Drive**

Time Period	Intersection and Movement	Without Mitigation				With Mitigation			
		Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>	Volume	V/C <sup>1</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
	<b>Total</b>								
AM Peak Hour	Eastbound Left	355	0.42	10.3	B	355	0.67	23.5	C
	Eastbound Right	340	0.39	10.2	B	340	0.62	22.9	C
	Westbound Left	249	0.75	24.2	C	249	0.62	16.5	B
	Westbound Thru	181	0.21	8.4	A	181	0.21	8.4	A
	Northbound Left	135	0.23	13.8	B	135	0.23	13.8	B
	Northbound Right	541	0.75	24.8	C	541	0.75	24.8	C
	<b>Total</b>								
PM Peak Hour	Eastbound Left	260	0.28	7.4	A	260	0.63	26.7	C
	Eastbound Right	99	0.05	6.0	A	99	0.11	18.4	B
	Westbound Left	380	0.82	23.3	C	380	0.64	13.7	B
	Westbound Thru	453	0.49	9.5	A	453	0.49	9.5	A
	Northbound Left	430	0.85	33.7	C	430	0.85	33.7	C
	Northbound Right	269	0.46	19.5	B	269	0.46	19.5	B

NOTES

- (1) V/C denotes volume-to-capacity ratio.
- (2) Delay is average vehicle delay per vehicle in seconds.
- (3) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

**Project Related Traffic Impacts - Scenario 2**

The second scenario is for the intersection of Ulune Street/Halewiliko Street at Kulawea Street to be a five legged intersection. The Highway Capacity Software used to perform the level-of-service analysis does not have the capacity to perform an analysis of a five legged intersection using either the operations or planning analysis methods. Therefore, this scenario was analyzed using the *planning method* with manual calculations. In summary, this scenario as analyzed as follows:

1. The intersection lane configurations are the same as for Scenario 1 except for the intersection of Ulune Street/Halewiliko. At this intersection, the intersection configuration is the same except there is a second westbound approach which is Ulune Street. The approach configuration is the same as the existing configuration.
2. The traffic signals will have five phases. There will be a separate phase for each approach.
3. Traffic projections for the intersection of Moanalua Road at Aiea Heights Drive are the same for both scenarios. Therefore, it was assumed that the level-of-service analysis for this intersection would have the same conclusions as the analysis for Scenario 1.

The results of the level-of-service analysis for Scenario 2 is summarized in Table 12.

**Table 12 Future Levels-of-Service for Scenario 2**

Time Period	Intersection and Movement	Cumulative		Cumulative Plus Project		Change
		V/C <sup>1</sup>	LOS <sup>2</sup>	V/C <sup>1</sup>	LOS <sup>2</sup>	V/C
AM Peak Hour	Ulune Street/Halewiliko Street at Kulawea Street	0.98	E	1.02	F	0.04
	Ulune Street/Halewiliko Street at Aiea Heights Drive	0.71	C	0.77	C	0.06
	Ulune Street at Aiea Heights Drive	0.46	B	0.48	B	0.02
PM Peak Hour	Ulune Street/Halewiliko Street at Kulawea Street	0.81	D	0.87	D	0.06
	Ulune Street/Halewiliko Street at Aiea Heights Drive	0.82	D	0.82	D	0.00
	Ulune Street at Aiea Heights Drive	0.47	B	0.54	B	0.07

**NOTES**

- (1) V/C denotes volume-to-capacity ratio.  
 (2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on average vehicle delay for signalized and unsignalized intersections.

As shown, this scenario results in significant impacts traffic impacts at all the study intersections. The intersection of Ulune Street/Halewiliko Street will operate at level-of-service E and F during the morning peak hour, without and with the project. This is because the five-legged intersection requires a separate signal phase for each approach to provide safe traffic movements.

### **Summary and Conclusions**

The conclusions of the traffic impact analysis for 2005 cumulative plus project conditions are:

1. The proposed project is a town center on the site of the old sugar mill in Aiea. The project will be located on a parcel bounded by the new Halewiliko Street on the south, Aiea Height Drive on the west and Kulawea Street on the east.
2. Access to the site will be via two driveways along the north side of Halewiliko Street between Aiea Heights Drive and Kulawea Street.
3. The project will contain the following uses:
  - a. A library (20,000 square feet)
  - b. Senior housing (140 units)
  - c. A daycare center (5,000 square feet)
  - d. Meeting rooms (6,600 square feet)
  - e. Art Center and Community Center (9,000 square feet)
4. The only potential related project identified was a 12-unit residential along Kulawea Street. Traffic that this project would generate was estimated using trip generation rates for single-family detached housing and distributed to the traffic movements at the study intersections.
5. In addition to the related residential development, Halewiliko Street is expected to be opened and the traffic signals at the Ulune Street/Halewiliko Street at Aiea Heights Drive turned on. The plan is to cul-de-sac Ulune Street west of Kulawea Street. Thus, the intersection would be a four-legged intersection with Ulune Street as the east leg, Halewiliko Street as the west leg, and Kulawea Street as the north and south legs. There is also an alternative plan to retain Ulune Street as a through street. Therefore, when Halewiliko Street is opened, the intersection would be a five legged one.
6. The proposed town center will generate 180 trips during the morning peak hour and 310 trips during the afternoon peak hour.
7. The level-of-service analysis was performed for Scenario 1, which is the plan to install a cul-de-sac along Ulune Street west of Kulawea Street. Mitigation measures have been recommended for the intersections of Ulune Street/Halewiliko Street at Kulawea Street and Ulune Street/Halewiliko Street at Aiea Height Drive.
8. The recommended improvement for the intersection of Ulune Street/Halewiliko Street at Kulawea Street is to modify the westbound approach so that the outside lane will be an optional through or right turn lane. The recommended improvement will improve the volume-to-capacity ratio for the westbound through and right turn movements from 0.86 to 0.62 during the afternoon peak hour and from 0.88 to 0.49 during the afternoon peak hour.
9. The recommended improvement for the intersection of Ulune Street/Halewiliko Street at Aiea Heights Drive is to provide a separate westbound left turn phase. As a result of this traffic signal modification, the volume-to-capacity ratio for the westbound approach with the project is better than the volume-to-capacity ratio for the with project condition. The volume-to-capacity ratio for the eastbound approach increases, but the level-of-service is B or better for cumulative plus project conditions.

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

Appendix F  

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Record of Conversations For Cultural Assessment



Francis S. Oda, AIA, AICP  
 Norman G. Y. Hong, AIA  
 Sheryl B. Seaman, AIA, ASID  
 Hitoshi Hida, AIA  
 Roy H. Nihei, AIA, CSI  
 James I. Nishimoto, AIA  
 Ralph E. Portmore, AICP  
 Stephen H. Yuen, AIA  
 Linda C. Miki, AIA

# RECORD OF CONVERSATION

Group 70 International, Inc. • Architecture • Planning • Interior Design • Environmental Services  
 925 Bethel Street, Fifth Floor • Honolulu, Hawaii 96813-4307 • PH: (808) 523-5866 • FAX: (808) 523-5874

PROJECT		PROJECT NO.
'Aiea Town Center		20047-11
SUBJECT		
Cultural/ Historical Knowledge of Aiea		
DATE		TIME
March 15, 2002		9:00 a.m.
PERSON CALLING	AGENCY	PHONE NO.
Kāwika McKeague	Group 70 International, Inc.	441-2149
PERSON CALLED	AGENCY	PHONE NO.
Nā Kūpuna (3)		

## SUMMARY:

Kāwika McKeague, of Group 70 International, Inc. had a conversation with three kūpuna regarding the cultural and historical legacy of the ahupua'a of 'Aiea. They requested that their 'ike, mana'o, and no'ono'o be used as appropriate but would prefer not to be "listed in any palapala (referring to the EA document)."

In this informal discussion, these kūpuna reiterated that it important to consider all of the cultural resources within the ahupua'a, particularly those mauka (mountainous) and makai (coastal) resources that still exist such as Keaiwa Heiau and the remnants of the fishponds along the shoreline. In their opinion, these cultural resources can be used as an educational tool that enriches the community with the properly applied approaches of restoration, maintenance, and preservation. Values of mālama 'āina, aloha 'āina, laulima, and lōkahi, can be shared through lessons of kuleana.

In speaking about the mill site, it was shared that the O'ahu Railway once passed through Aiea along the shoreline area and the cane fields extended up through Hālawa Valley and out to the Airport. The neighboring area around the mill was divided up into camps with people from various ethnic groups serving different roles. Each camp area held a certain social rank and how a family moved from one camp to the next determined their social status. The Up Camp, completed in the early 30s, was considered the best. One of the plantation managers, Alvah Scott (whose name graces a public school nearby) during this time built a gymnasium, theater, and a baseball field. It was shared that soon after the war, much of the acreage for planting sugar was lost to the military and was thought to be the beginning of problems for the mill.

In discussing the plans for the proposed 'Aiea Town Center project, these individuals thought that it was a good idea to put "something good" on the former mill site. They shared some families do not have good memories of the mill because of the strain it once put on these families and how perhaps a new center, focused on the community, would be an improvement.

Appendix G

Executive Summary, Remedial Investigation and  
Interim Soil Removal Report,  
Clayton Group Services (October 2001)

970 North Kalaheo Avenue  
Suite C-316  
Kailua, Oahu, HI 96734  
808.531.6708  
Fax 808.537.4084



**Remedial Investigation and Interim Soil  
Removal Report**

**Former Aiea Sugar Mill  
99-193 Aiea Heights Road  
Aiea, Oahu, Hawaii  
TMK: [1] 9-9-5:Parcel (25)**

Clayton Project No. 85-01222.00  
October 22, 2001

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*Prepared for:*

**BANK OF HAWAII  
Honolulu, Hawaii**

*Prepared by:*

**CLAYTON GROUP SERVICES, INC.  
970 North Kalaheo Avenue  
Suite C-316  
Kailua, Hawaii 96734  
808.531.6708**

## EXECUTIVE SUMMARY

The Bank of Hawaii retained Clayton Group Services, Inc. (Clayton) to conduct a remedial investigation to investigate, delineate, excavate, and dispose of limited amount of known impacted soil at the former Aiea Sugar Mill. The property is identified as TMK: [1] 9-9-5: Parcel 25, located at 99-193 Aiea Heights Road, Aiea, Oahu, Hawaii. The former Aiea Sugar Mill is hereinafter referred to as "the site." A map showing the general project location of the project site is presented as Figure 1, located behind the Figures Tab.

The purpose of this project was to perform further field investigation to delineate lead-impacted soil, confirm the presence or absence of petroleum-impacted soil, and to excavate and dispose of limited quantities known quantities of impacted soil at the former Aiea Sugar Mill. The sampling and analytical activities documented in this report were designed to support the analysis of remedial action alternatives and facilitate selection of the final remedy for the site.

The subject property consists of nineteen (19) lots known as the "Aiea Industrial Subdivision" at Aiea, City and County of Honolulu, State of Hawaii, designated as Tax Map Key No. (1) 9-9-005-025. The subject property is located at the base of Aiea Heights subdivision in Aiea, approximately ½ a mile northeast of the Pearl Harbor shoreline. The site is located at 99-193 Aiea Heights Drive, Aiea, Oahu, Hawaii. The property is adjoined by Aiea Heights Drive, Hakina Street, and Kulaweia Street. The site is zoned I-2 General Industrial by the City and County of Honolulu. The adjacent properties to the northwest, northeast, and southeast are residential. Aiea Intermediate School is located adjacent to the to the northeast side of the site. The adjacent properties to the southwest are zoned community business (B-2).

The Aiea Sugar Mill operated at the site from 1899 until approximately 1994 when the mill was sold for potential commercial property development. The main mill complex and many related buildings were demolished in 1998. Grubbing, clearing and grading of the site was conducted 1999, and the grading and construction of the roadway areas was conducted during 2000.

Various environmental investigations and reports were completed from 1993 through 2001. Clayton reviewed previous reports and identified potential environmental issues at the site. Previous environmental investigations including sampling and analytical data were reviewed. The areas requiring further investigation are listed below:

- Fuel oil pump house (Lot 6)
- Above ground receiving tank (Lot 6)
- Fuel line from above ground receiving tank to fuel pump house (Lot 6)
- Scrap Yard (Lots 6 and 14)
- Lumber yard (Lot 6)
- Former sludge and used oil open storage (Lot 7)



- Unidentified tank feature (Lot 8)
- Lead Contamination (Lot 8)
- Capture berm within boiler room of former refinery building (Lot 11)
- Former underground storage tank [sand-filled] (Lot 10)
- Unlined drainage ditch (Lot 11)
- Lead Contamination (Lot 11)
- Previous heavily stained concrete within maintenance building (Lot 12)
- Fuel Lines from Above Ground Tanks on Lot 6 to Refinery Boiler Room (Fuel Line Crosses Lots 13 and 14)

The remedial investigation at the project site involved five primary tasks as described below:

#### **Site Survey: Verify Previous Sampling Locations**

Clayton retained a licensed surveyor to survey and mark former sampling points and significant former building structures, as necessary to conduct the field investigation.

#### **Delineation of Lead-Impacted Soil**

The initial purpose of this task was to delineate the vertical and horizontal extent of lead-impacted soil on Lots 8 and 11 that had been identified during a previous environmental investigation. The investigation was expanded on to the lots immediately adjacent to Lots 8 and 11 and eventually included sampling on Lots 1 through 14.

Concentrations of lead were detected in the soils on Lots 7 through 14 at levels above the State of Hawaii Department of Health (DOH) Tier 1 Soil Action Level (SAL) of 400 mg/kg. The average concentrations of lead in the surface soil in Lots 8, 9, 10, and 11 were 475 mg/kg, 413 mg/kg, 713 mg/kg, and 1,431 mg/kg, respectively and are above the Tier 1 SAL. The average concentrations of lead in the surface soil in Lots 7, 12, 13 and 14 were 390 mg/kg, 355 mg/kg, 384 mg/kg, and 224 mg/kg, respectively and are below the Tier 1 SAL. The concentration of lead in the soils drops off significantly with depth. The lead impacted soil is predominately situated from the surface to 3 feet in depth, although scattered soil samples having lead concentrations higher than the Tier 1 SAL are present at depths up to 6 feet below ground surface (BGS). One surface sample (sample 06S-32-PB8) and one subsurface sample (sample 06S-23-TR1) from Lot 6 had concentrations of lead above the Tier 1 SAL.

Since high concentrations of lead-impacted soil were present in the surface soil on Lot 11, Clayton conducted activities to stabilize the surface soils and prevent windblown soil potentially containing lead from migrating off of the site. A surface coating of Soil Sement® was applied to the Lot 11 covering an area of approximately 17,806 square feet.

The lead contamination is distributed across Lots 7 through 14, with no apparent uniform pattern. Grading reports from grading activities reviewed during this investigation indicated that grubbing, clearing and grading of the site was conducted in 1999. The field reports indicate that, in general, soil was cut from Lots 1 through 5 and then used to fill on Lots 7 through 14. The lack of a uniform pattern is likely due to the soils being moved around during the grading of the site.

### Excavation and Disposal of Known Petroleum-Impacted Soil

#### Fuel Oil Pump House, Line and Receiving Tank (Lot 6)

The review of the previous investigation results had identified the following three areas as having grossly impacted soil or requiring further investigation: (1) fuel oil pump house on Lot 6; (2) above ground receiving tank on Lot 6; and (3) fuel line from above ground receiving tank to fuel oil pump house on Lot 6. Due to the proximity and relationship of these structures to one another and since a single area of petroleum-impacted soil was present, the area is identified as the "fuel oil pump house, line and receiving tank (Lot 6)."

Based on information from the previous investigation, excavation activities were conducted at the "fuel oil pump house, line and receiving tank (Lot 6)." An approximately 4-foot thick layer of apparently "clean" soil overburden was present, extending from the surface to approximately four feet in depth. The soil below 4-feet in depth displayed black staining, petroleum odors and elevated photoionization detection (PID) readings. An approximately 6-inch diameter by 25 feet long uncapped steel pipe was present within the excavation at a depth of approximately 5 feet BGS. Soils observed to be grossly contaminated were segregated and stockpiled separately from the "clean" soil. Upon completion, the excavation measured approximately 40-feet by 40-feet by 17-feet deep. The total quantity of petroleum-impacted soil excavated and disposed at Waimanalo Gulch Sanitary Landfill (hereafter referred to as "the landfill") was 454.05 tons.

Stained soil with petroleum odors and elevated PID readings remained in the sidewalls and bottom of the excavation at the completion of the excavation. The total petroleum hydrocarbons (TPH)-diesel analysis indicated that concentrations ranged from not detectable to 6,220 mg/kg. One sample (from the eastern sidewall) had diesel range petroleum hydrocarbon result of 6,220 mg/kg, which exceeded the Tier 1 SAL of 5,000 mg/kg. Analytical testing for TPH-oil indicated that concentrations ranged from not detectable to 3,580 mg/kg. None of the samples had TPH-oil result exceeded the Tier 1 SAL of 5,000 mg/kg. The sample from the southern sidewall contained benzene above the Tier 1 SAL of 0.05 mg/kg. Samples from the southern, eastern, and northern sidewalls had ethylbenzene concentrations, which exceeded the Tier 1 SAL of 0.50 mg/kg. The samples from the western sidewall and the bottom of the excavation did not have analytical results exceeding the Tier 1 SAL or Environmental Protection Agency (EPA) Preliminary Remediation Goals (PRGs).

An investigation is currently ongoing to investigate the extent of the petroleum, benzene, and ethylbenzene remaining in the excavation. Specifically, Clayton is drilling up to nine boreholes to assess the horizontal and vertical extent of the contamination. Upon completion, the results of the investigation will be submitted as an addendum to this report.

#### Capture Berm Within Boiler Room of Former Refinery Building (Lot 11)

Based on a previous investigation by J.R. Herold and Associates (JRHA), Clayton installed one borehole (Clayton borehole B20A) at the former capture berm within the boiler room of the former refinery building on Lot 11. JRHA's previous investigation had identified a benzene concentration of 0.695 mg/kg, above the Tier 1 SAL of 0.05 mg/kg, in the soil from JRHA borehole B20. Clayton borehole B20A was placed immediately adjacent to JRHA borehole B20, which had been staked by the surveyors. Clayton collected one sample from the corresponding interval and a second sample just below. No visual staining, olfactory odors, or elevated PID readings were detected. The samples had petroleum hydrocarbon concentrations less than 80 mg/kg. Chromium and lead concentrations were below the EPA PRG and Tier 1 SAL, respectively. Analysis of samples for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) indicated no detectable concentrations. Benzene was not detected in either soil sample.

#### Excavation of Exploratory Trenches

The six areas of potential concern (listed below) were assessed using exploratory excavations to observe soil and collect soil samples, which were analyzed to ascertain the concentrations of potential contaminants (if any) and assess if any remedial action is necessary. A total of 14 exploratory excavations were excavated using a backhoe or similar type excavator to allow observation and sampling of the subsurface soil.

- Scrap yard, southeast side of liquid sugar production facility (Lot 6)
- Lumber yard, east corner of the property (Lot 6)
- Former sludge and used oil open storage (Lot 7)
- Unidentified tank feature identified on historical maps (Lot 8)
- Previous heavily stained concrete within maintenance building (Lot 12)
- Former fuel lines (crossing Lots 13 and 14) from the Lot 6 above ground tanks to the refinery boiler room

With the exception of one sample (sample 06S-23-TR1) from the lumberyard on Lot 6, none of the samples had concentrations of any analytes above the Tier 1 SAL or EPA PRGs. Sample 06S-23-TR1 had a concentration of lead at 780 mg/kg, which is above the Tier 1 SAL of 400 mg/kg. All other analytes in sample 06S-23-TR1 were below the Tier 1 SAL or EPA PRGs.

### Disposal of the Soil Stockpiles

Several soil stockpiles of varying sizes were present on the site resulting from JRHA's previous investigation. Two stockpiles present on Lot 10 were believed to be related to the removal of the former underground storage tank [sand-filled] that was removed during JRHA's investigation. Since the specific details regarding the circumstances generating each stockpile was not precisely known, the stockpiles were sampled, analyzed, profiled and disposed. Additionally, numerous other soil stockpiles, believed to be related to construction activities, were present at different locations on the site. These soil stockpiles were also sampled and analyzed, profiled and disposed. A total of 224.96 tons of miscellaneous soil stockpiles were removed from the site and disposed of at the landfill. Numerous debris piles comprised of concrete, asphaltic-concrete, wood, vegetation, scrap metal, metal pipes, and bricks were loaded, transported and disposed.

### Conclusions

Clayton's remedial investigation has reinvestigated numerous areas of environmental concern at the former Aiea Sugar Mill. The observations and analytical testing results from the majority of the areas reinvestigated do not indicate that additional investigation or remedial actions are required. Two areas require remedial actions or additional remedial investigation. These two areas are: (1) lead impacted soil on Lots 7 through 14 and to a limited extent on Lot 6, and (2) petroleum-impacted soil at the fuel oil pump house, line and receiving tank (Lot 6).

The investigation indicates that near surface lead contamination impact the soils on Lots 7 through 14. The surface area of Lots 7 through 14 is approximately 149,475 square feet. Lots 8, 9, 10, and 11 have the highest concentrations of lead impacted soil and these four lots have average concentrations of lead in the surface soil exceeding the Tier 1 SAL. As an interim measure, a surface coating of Soil Sement® was applied to the Lot 11, the most heavily impacted area, to stabilize the surface soils and prevent soil potentially containing lead from becoming airborne and migrating off of the site. Clayton recommends a remedial alternatives analysis be conducted to evaluate and select the most appropriate remedy for the site.

The investigation of petroleum-impacted soil at the fuel oil pump house, line and receiving tank (Lot 6) resulted in the removal and disposal of 454.05 tons of petroleum-impacted soil. However, grossly impacted soil containing benzene, ethylbenzene and petroleum hydrocarbons as diesel remain at concentrations above the Tier 1 SAL. An investigation is currently ongoing to delineate the horizontal and vertical extent of the remaining petroleum impacted soil. Since the depth to groundwater is estimated to be between 90 and 125 feet BGS, Clayton will submit the results of the addition investigation as an addendum to this report.

Appendix H

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Executive Summary, Remedial Action Report for  
Lead Impacted Soil, Clayton Group Services  
(October 2002)