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.hl.us

JEREMY HARRIS MAYOR



RECEIVED

RANDALL K. FUJIKI, AIA DIRECTOR

101 NOV -7 P3:18

LORETTA K.C. CHEE DEPUTY DIRECTOR

November 2, 2001

CIFC. OF ENVIR 2001/FLOG-4330 QUALITY CONTROL

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

Dear Ms. Salmonson:

APPLICATION FOR DEVELOPMENT PLAN LAND USE AMENDMENT AND ZONE CHANGE ENVIRONMENTAL ASSESSMENT (EA) DETERMINATION FINDING OF NO SIGNIFICANT IMPACT

Recorded Owner

Lani Properties

Applicant

Lani Properties

Agent

Group 70 International, Inc.

Land Owner

RCJ Corporation

Location

Near the intersection of Kamehameha Highway and

Kohomua Street

Tax Map Key

9-9-03:068

Request

Proposal

Development Plan Land Use Amendment and Zone Change Build a retail center composed for a convenience store and takcout

restaurant and related facilities.

Determination

A Finding of No Significant Impact is Issued

Attached and incorporated by reference is the Final EA prepared by the applicant for the project. Based on the significance criteria outlined in Title 11, Chapter 200, Hawaii Administrative Rules, we have determined that preparation of an Environmental Impact Statement is not required.

Ms. Genevieve Salmonson, Director November 2, 2001 Page 2

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final EA. If you have any questions, please contact Robert Reed of our staff at 523-4402.

Sincerely yours,

RANDALL K. FUJIKI, AIA
Director of Planning and Permitting

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Enclosures

cc: Group 70 International

FILE COPY

2001-11-23-0A-FEA-

Final Environmental Assessment

Application for Development Plan Land Use Amendment and

Zone Change

Lani Properties

(Aloha Market)

TMK (1) 9-9-03:68

Halawa, 'Aiea, Island of O'ahu

Applicant:

Lani Properties 50 South Beretania Street C-203 Honolulu, Hawaii 96813

Prepared By:

Group 70 International, Inc.

Architecture • Planning • Interior Design • Environmental Services
Honolulu, HI

September 2001

Final Environmental Assessment

Application for Development Plan Land Use Amendment and

Zone Change

Lani Properties

Aloha Market

TMK: (1) 9-9-03:68 Halawa, 'Aiea, Island of O'ahu

This environmental document is prepared in accordance with the requirements of Chapter 343, HRS and Hawai'i Administrative Rules, Title 11, Department of Health.

Applicant:

Lani Properties
50 South Beretania Street C-203
Honolulu, Hawaii 96813

Accepting Authority:
Department of Planning and Permitting
City and County of Honolulu

Responsible	
Official:	
	5 .
	Date

Prepared By:

Group 70 International, Inc.

Architecture • Planning • Interior Design • Environmental Services
925 Bethel Street, 5th Floor

Honolulu, HI 96813 808-523-5866

September 2001

LANI PROPERTIES: ALOHA MARKET DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

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LANI PROPERTIES: ALOHA MARKET DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

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LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

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Section 1.0
Applicant Information

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

1.0 APPLICATION INFORMATION

Project Name:

Lani Properties: Halawa Site

Authorized Agent:

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

Honolulu, HI 96813

Contact: George Atta, AICP

Telephone: 523-5866 extension 103

Applicant:

Lani Properties

50 South Beretania Street C-203 Honolulu, Hawai'i 96813 Contact Person: Warren Ho

Telephone: (808) 521-0081, Fax: 533-3887

Land Owner:

RCJ Corporation

50 South Beretania Street C-203 Honolulu, Hawai'i 96813

Location:

Near the intersection of Kamehameha Highway and

Kohomua Street

Near Aloha Stadium and Pu'uwai Momi Housing

'Aiea, O'ahu, Hawai'i 96701

Address:

Not available

Tax Map Key:

9-9-03:068

Land Area:

129

32,181 sq. ft or .7 acres

Required Maps:

Figure 1-1 Location Map Figure 1-2 Tax Map Key

Summary:

The project proposes to build a retail center with a convenience store and takeout restaurant which will serve nearby residents and tourists in the area. The project also includes a parking lot and space for a police workstation as well as road and traffic improvements beneficial to

nearby residents.

LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

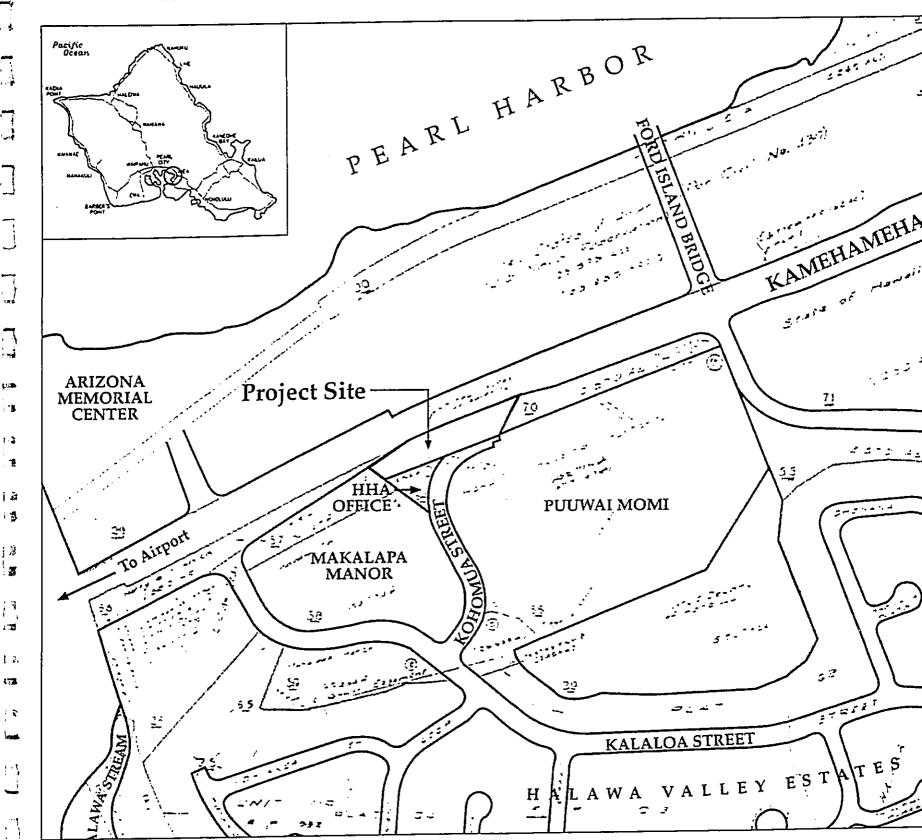


Figure 1-1 Location Map

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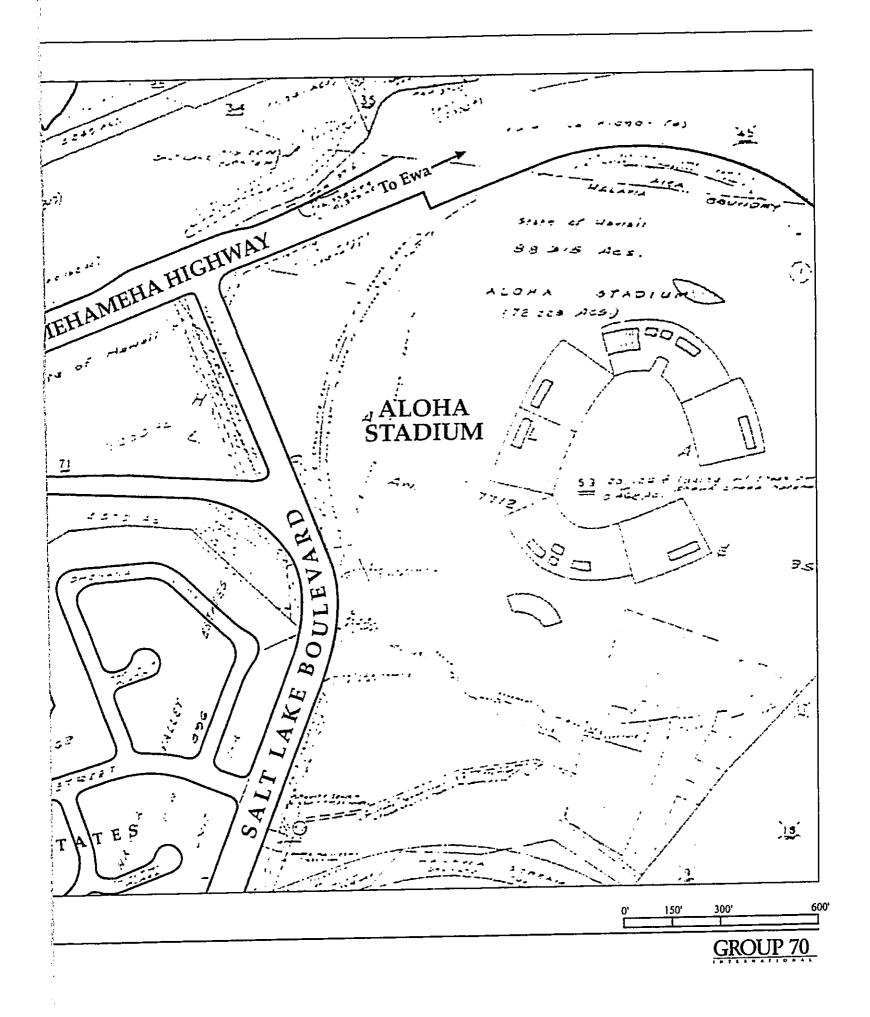
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LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

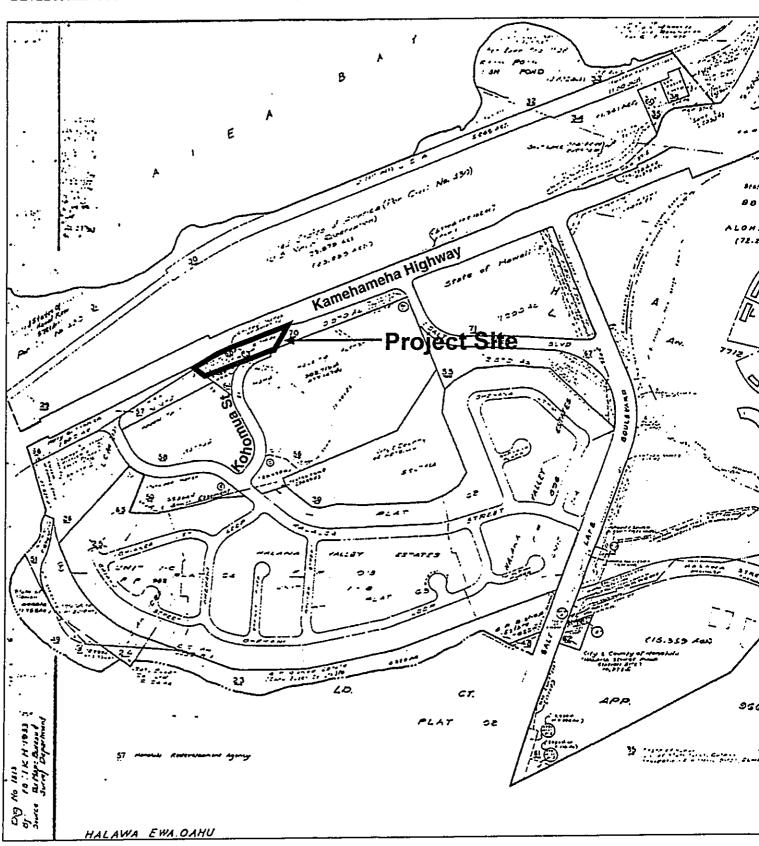
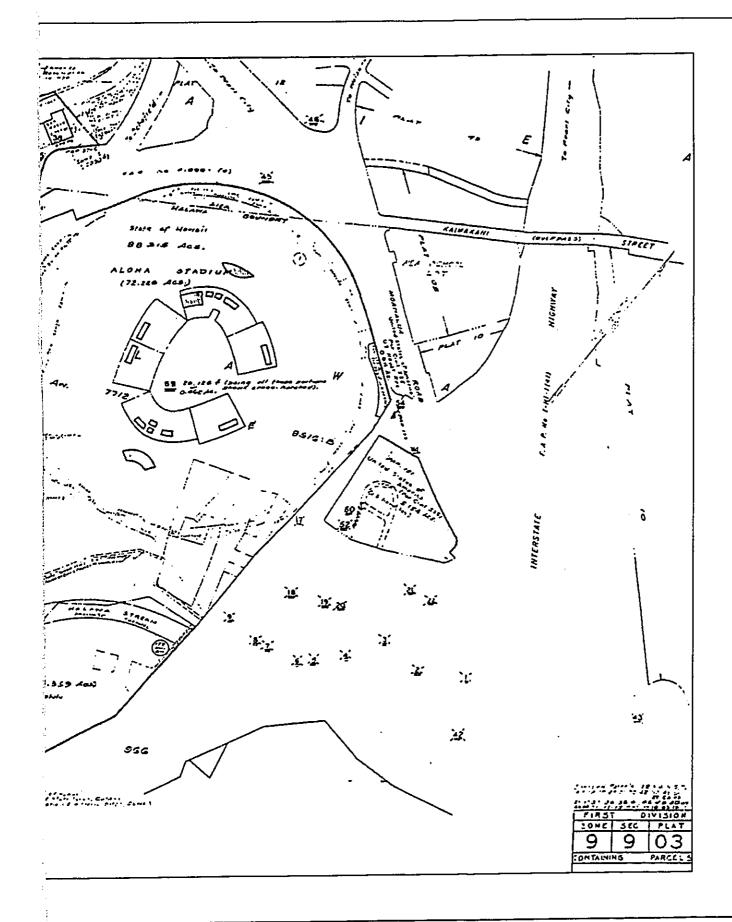


Figure 1-2 Tax Map Key: 9-9-03: 68



Section 2.0

Land Use Information

1 3

2.0 LAND USE INFORMATION

State Land Use District:

Urban

Development Plan

Land Use Map:

Primary Urban Center, Residential

DP Public Facilities Map:

Not Applicable

Existing Zoning (LUO):

R-5 Residential District

Request:

Change Zoning from R-9 to B-2 for the purpose of developing a three-story commercial center for convenience retail operation. Amend Primary Urban

Center Development Plan Land Use Map.

Required Maps:

Figure 2-1 State Land Uses

Figure 2-2 Primary Urban Center Development Plan

Land Use: Residential

Figure 2-3 Existing Zoning: R-5

Figure 2-4 Special Management Area Map

Permits Required:

Primary Urban Center Development Plan Land Use

Amendment Zone Change

Construction Permits

Summary:

The project proposes to build a retail center with a convenience store and takeout market which will serve nearby residents, people en route to Aloha Stadium, and tourists in the area. The project also includes a parking lot and space for a police work station as well as road and traffic improvements beneficial to nearby residents.

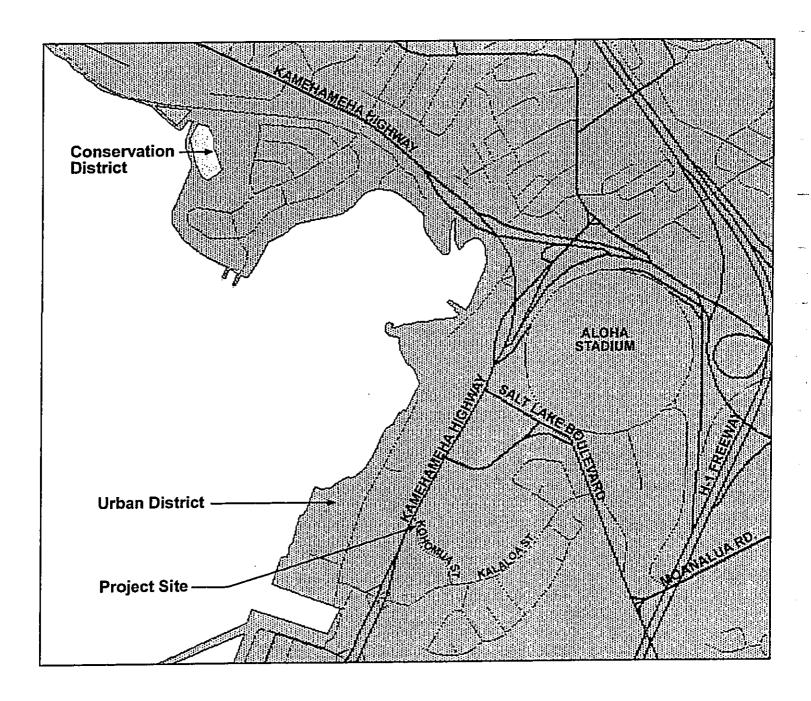


Figure 2-1 State Land Uses

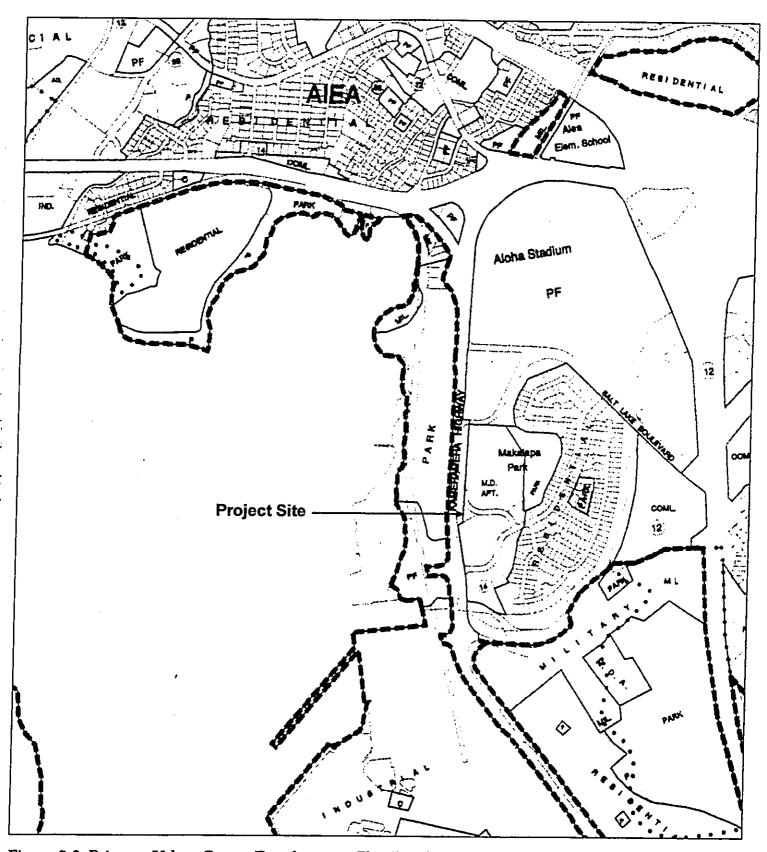


Figure 2-2 Primary Urban Center Development Plan Land Use: Residential

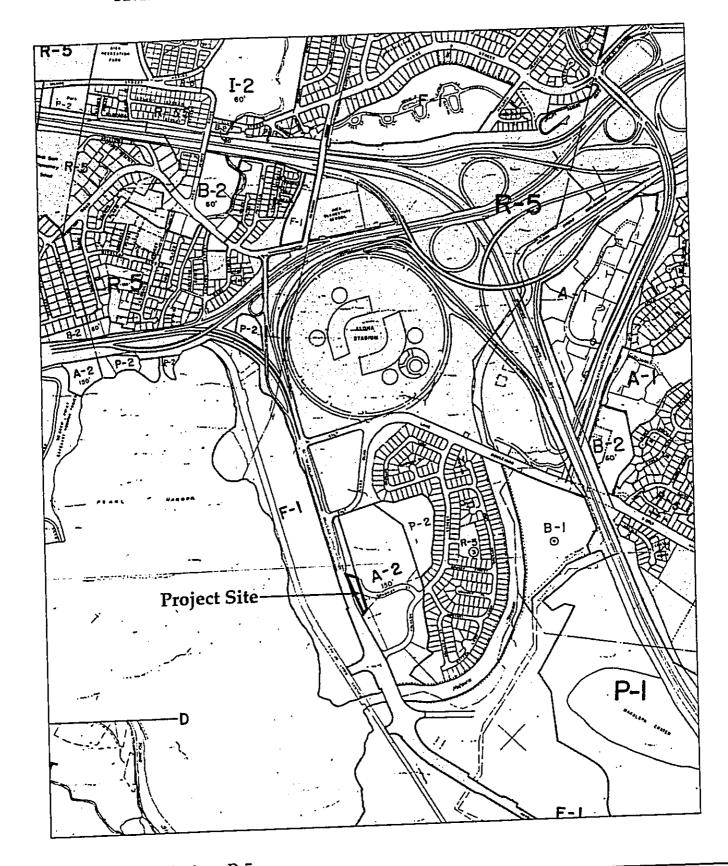


Figure 2-3 Existing Zoning: R-5
Zoning Map No. 7 Halawa to Pearl City 1986 2-4

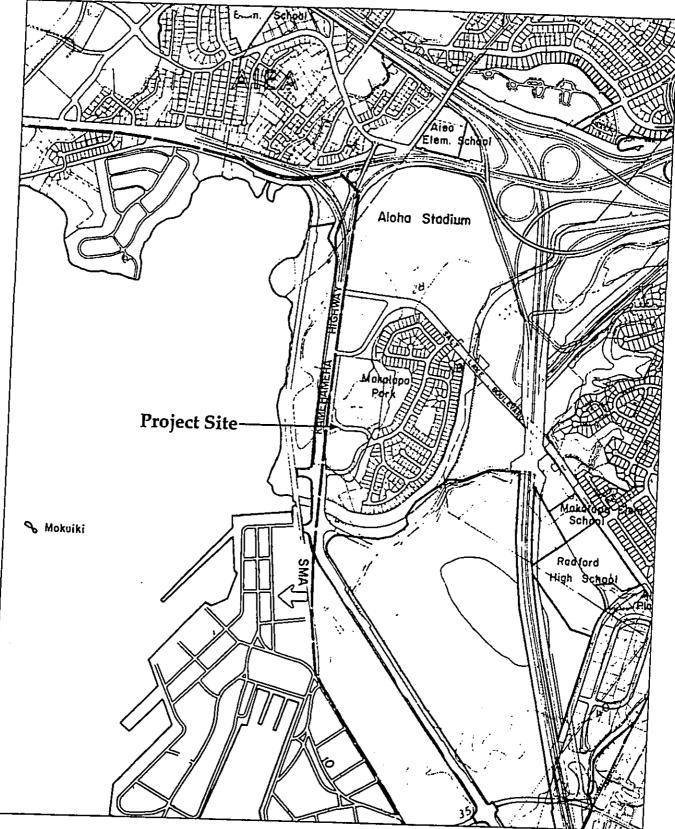


Figure 2-4 Special Management Area Map
Property is Outside SMA per DPP

GROUP 70

Section 3.0
Description of Property

3.0 DESCRIPTION OF PROPERTY

3.1 LOCATION

The project site is located at Makalapa, Halawa, 'Aiea, O'ahu along Kameharneha Highway near the Aloha Stadium and Pu'uwai Momi housing area. The parcel, listed as TMK 9-9-03: 068, consists of 32,181 square feet or .7 acres of land.

3.2 EXISTING USE

Over the past 40 years the original owner was the State of Hawaii who possessed the property as part of a larger parcel containing Halawa Housing and a road. When the road alongside the housing was to become Kamehameha Highway, the decrepit housing was taken down, Kamehameha Highway was built, and the project site property remained as a highway remnant. St. Paul Evangelical Church purchased the land from the State and planned to build a church on the property. During this tenure an extension of Kohomua Street that connects to Kamehameha Highway was built. The church was never built on the property, and in 1992 R C J Corporation, the current owner, purchased the property.

The parcel is considered a vacant unimproved lot (Figure 3-1). However, the site is currently being used to support several general purposes. A portion is utilized as a construction staging area for equipment and materials. Another section is used as an egress route connecting Kohomua Street to Kamehameha Highway. The other part is utilized as overflow parking during Aloha Stadium events. These two portions are shown in Figure 3-2.

3.3 SURROUNDING USES

Aloha Stadium, located about a half a mile from the project site, is the largest stadium in the state. It hosts a variety of sporting and entertainment activities each year such as University of Hawai'i football games and the Pro Bowl as well as the swap meet which attracts thousands of visitors each week.

Other visitor destinations in the area include the U.S.S. Arizona Memorial and the U.S.S. Bowfin Submarine Museum. The site is also located very close to Pearl Harbor Naval Station.

Two low to moderate income housing projects, Pu'uwai Momi (Figure 3-3) and Makalapa Manor (Figure 3-4) are located adjacent to the proposed development in an area zoned A-2. The structures closest to the site are two story walk-ups. Other apartment complexes in the area include Centre Court, Halawa View Estates, and Halawa Valley Estates.

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

Kamehameha Highway, a major east west traffic route is located adjacent to the site.

3.4 TOPOGRAPHY

The project site is located 1,500 feet from Pearl Harbor. The site is approximately 10 feet above sea level and is generally flat.

3.5 SOILS

The project site is associated with the Lualualei-Fill land – Ewa soil association: Deep, nearly level to moderately sloping, well-drained soils that have a fine textured or of fill land; on coastal plains.

More specifically, the project site contains Makalapa clays with 2 to 6 percent slope (MdB). The MdB soil is used for urban development. In a representative profile of this soil type, the surface layer is very dark grayish-brown clay about 8 inches thick. The next layer, 18 to 36 inches thick, is very dark grayish-brown, weathered volcanic tuff. The clays are very sticky and very plastic, and they crack widely upon drying. The soil is mildly alkaline in the surface layer and mildly alkaline to moderately alkaline in the next layer. Permeability is slow. Runoff is slow, and the erosion hazard is slight. The available water capacity is about 1.4 inches per foot of soil. Roots penetrate to the volcanic tuff. Workability is difficult because the clay is very sticky and very plastic. The shrink-swell potential is high.

Much of the site is composed of imported fill from adjacent highway, roadway, and housing construction. These have mixed with the underlying soil associations.

3.6 SLOPE

The project site is generally flat. There is a shallow drainage swale on the southern part of the site.

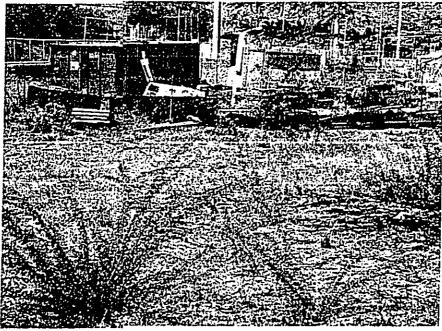
3.7 BOUNDARIES

The project site is bound by Kamehameha Highway to the west, Kohomua Street to the north and east and the Pu'uwai Momi Housing Project Administrative Office to the south.

LANI PROPERTIES: ALOHA MARKET DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

3.8 MAPS AND FIGURES

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- Existing Use of Project Site
 Surrounding Use: Egress Route and Vacant Lot
 Surrounding Use: Pu'uwai Momi Housing Complex
 Surrounding Use: Makalapa Manor Housing Complex
 Topography
 Soils 3-3
- 3-4
- 3-5
- 3-6



Existing Use of Project Site

Figure 3-1

Surrounding Use: Egress Route and Vacant Lot

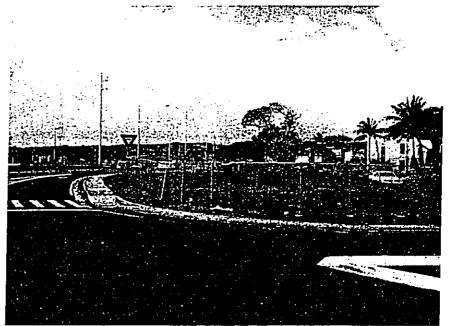


Figure 3-2

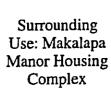
LANI PROPERTIES: ALOHA MARKET

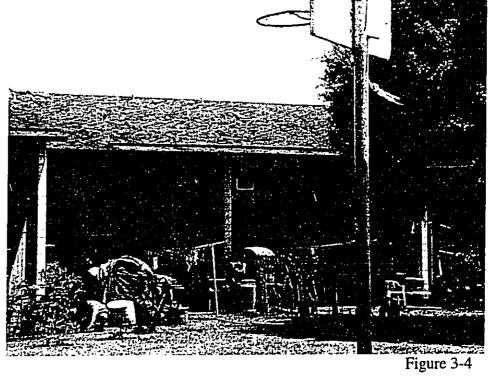
DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA



Surrounding Use: Pu'uwai Momi Housing Complex

Figure 3-3





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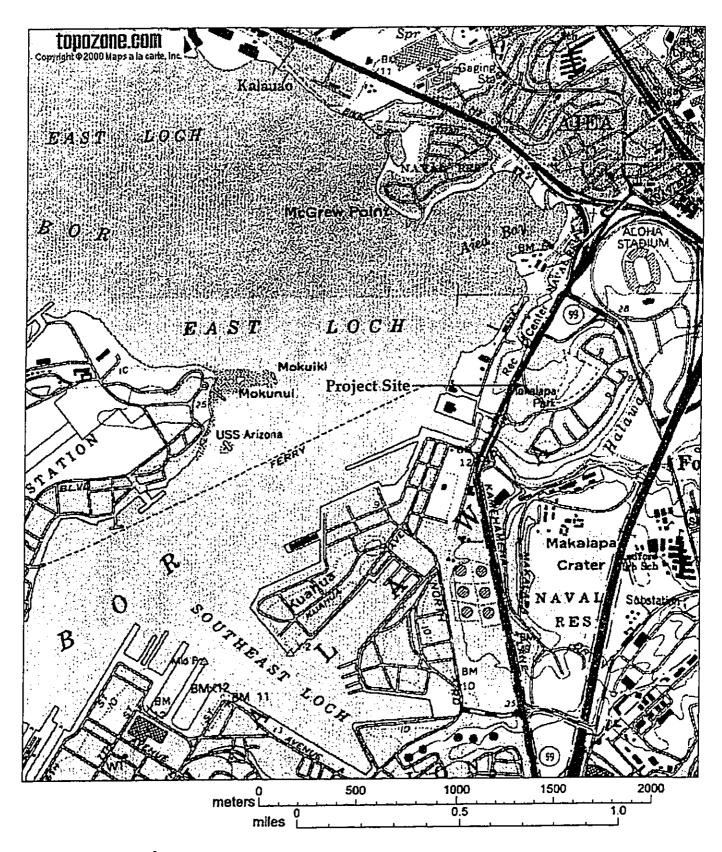


Figure 3-5 Topography
USGS Quadrangle Pearl Harbor

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LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

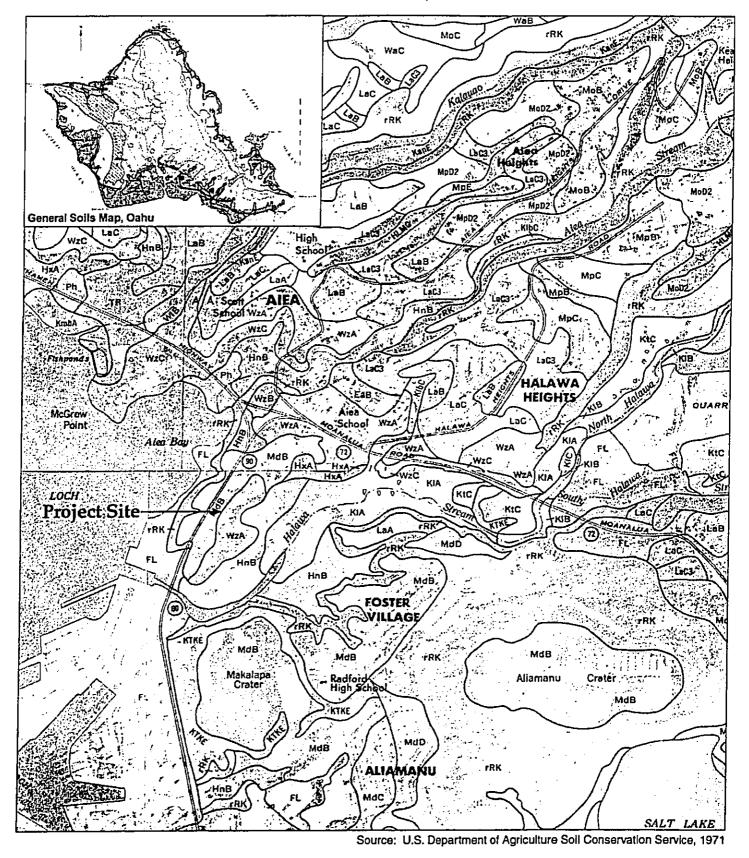


Figure 3-6 Soils Makalapa Clay (MdB) Lualualei - Fill Land - Ewa Association

Section 4.0

Development Proposal

4.0 DEVELOPMENT PROPOSAL

4.1 PROPOSED USE

The project proposes to utilize a 32,181 square foot lot as a 3-story 24-hour commercial establishment with a parking lot and access road.

The total area of the building will be 8,184 square feet. The first and second floors will each be 3,636 square feet and the third floor will be 912 square feet. The proposed uses include: a neighborhood convenience store, deli/take-out counter, outdoor patio area with tables and chairs, police work station, restrooms, third floor observation deck, and storage space. There will be additional tenant space for either a retail shop or museum.

The highest portion of the structure will be the elevator tower with a height of 45 feet. The height of the main roof will be 35 feet while the height of the outdoor observation deck area will be 22 feet. The project also includes the creation of 24 parking spaces and one loading zone. The project site will be landscaped to complement the area.

In addition, a right turn access from Kamehameha to Kohomua Street is also proposed. The traffic configuration will be discussed further in Section 6.4.

4.2 TIMETABLE

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Construction on the project will begin in the Spring of 2002 and take twelve months to eighteen months to complete.

4.3 PROJECT COST

The costs of constructing the building will be approximately \$1 million. Landscaping around the project site will cost approximately \$42,000.

There are additional costs associated with redesigning the roadway.

4.4 PROJECT NEED

The surrounding residential neighborhood is a market for the commercial services that will be provided by the neighborhood convenience store and deli/take out counter. This residential population was estimated at 3,080 individuals according to the 1990 census. There are currently no convenience stores or restaurants within easy walking distance of the Makalapa Manor and Pu'uwai Momi housing complexes or Makalapa Park.

LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

Tourists visiting the U.S.S. Arizona Memorial and Hawai'i residents attending events at Aloha Stadium are also a market for the proposed convenience store. The number of tourists is significant with more than 1.4 million individuals visiting the U.S.S. Arizona in 1996.

In addition, the police work station will increase the police presence in the neighborhood enhancing safety in the neighborhood.

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4.5 MAPS AND FIGURES

- Figure 4-1 Proposed Development Plan Land Use Map
- Figure 4-2 Preliminary Site Plan
- Figure 4-3 First, Second, and Third Floor Site Plans
- Figure 4-4 Front Elevation
- Figure 4-5 Conceptual Roadway Circulation Plan

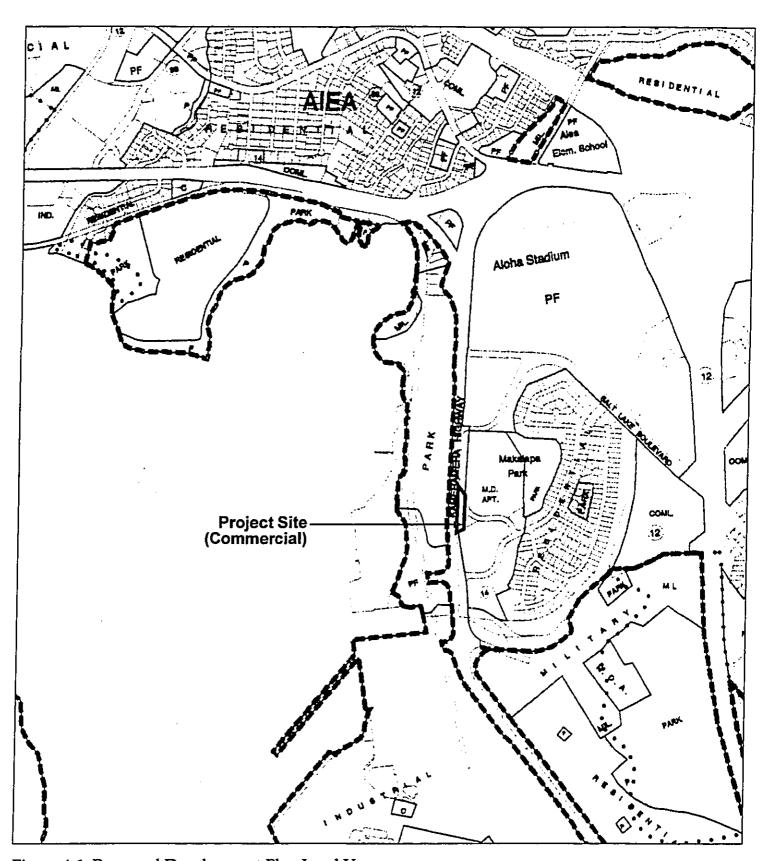


Figure 4-1 Proposed Development Plan Land Use map

CORRECTION

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LEGIBILITY
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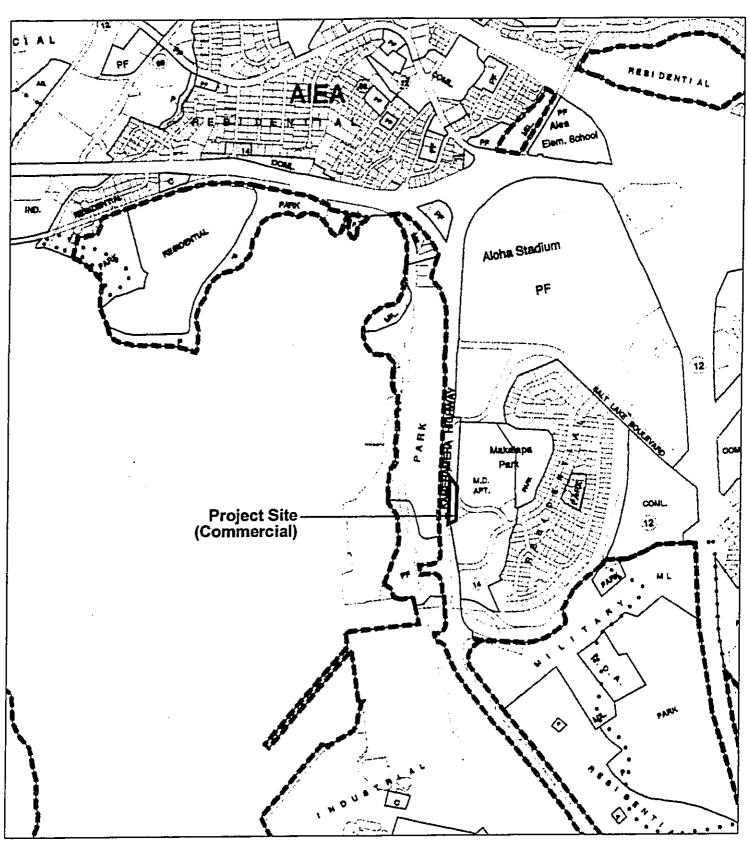


Figure 4-1 Proposed Development Plan Land Use map

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

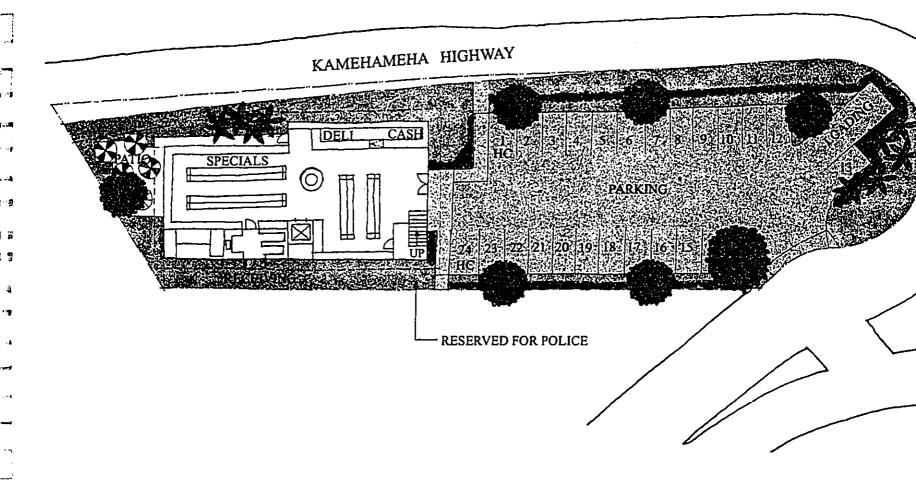
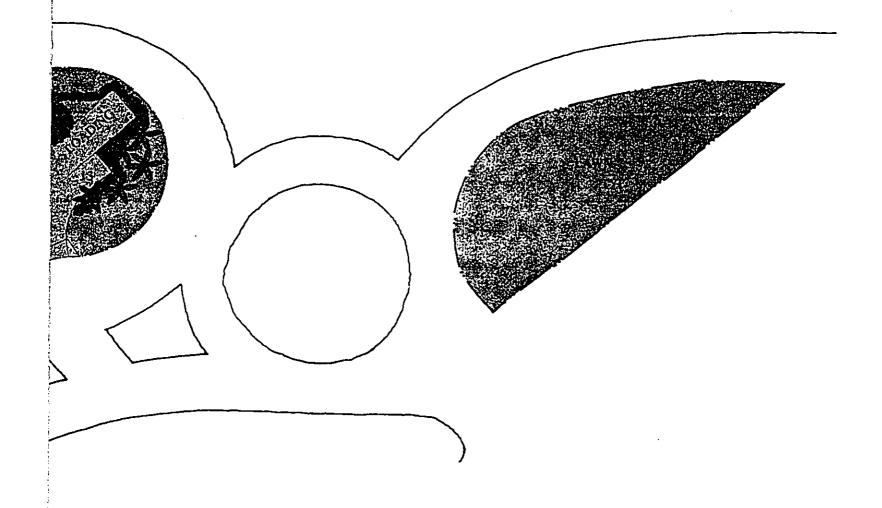


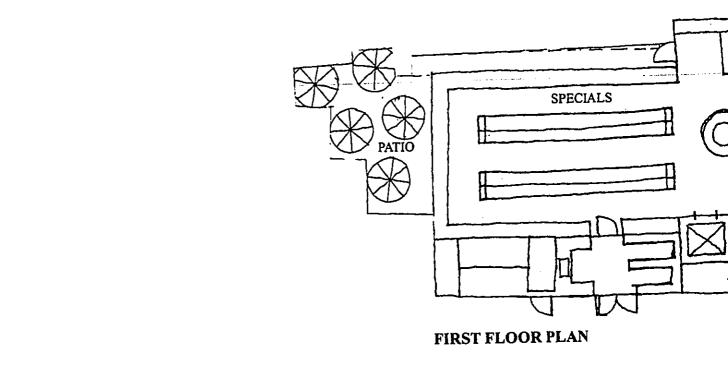
Figure 4-2 Preliminary Site Plan



0' 16' 32' 64

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DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA



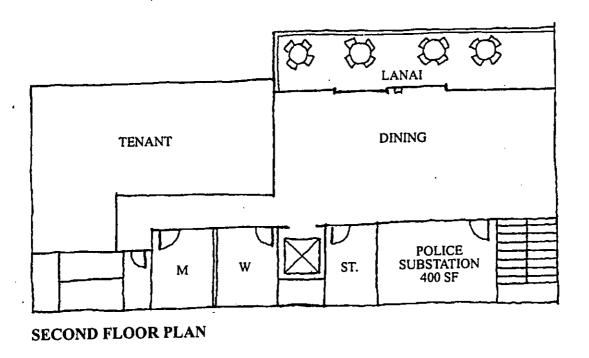
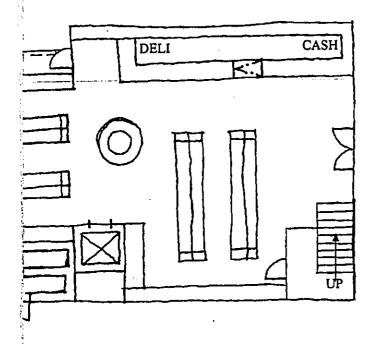


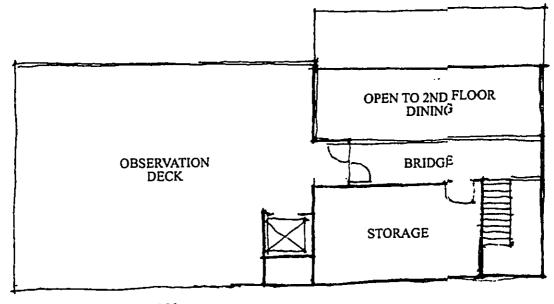
Figure 4-3 First, Second and Third Floor Site Plans

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THIRD FLOOR PLAN



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LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

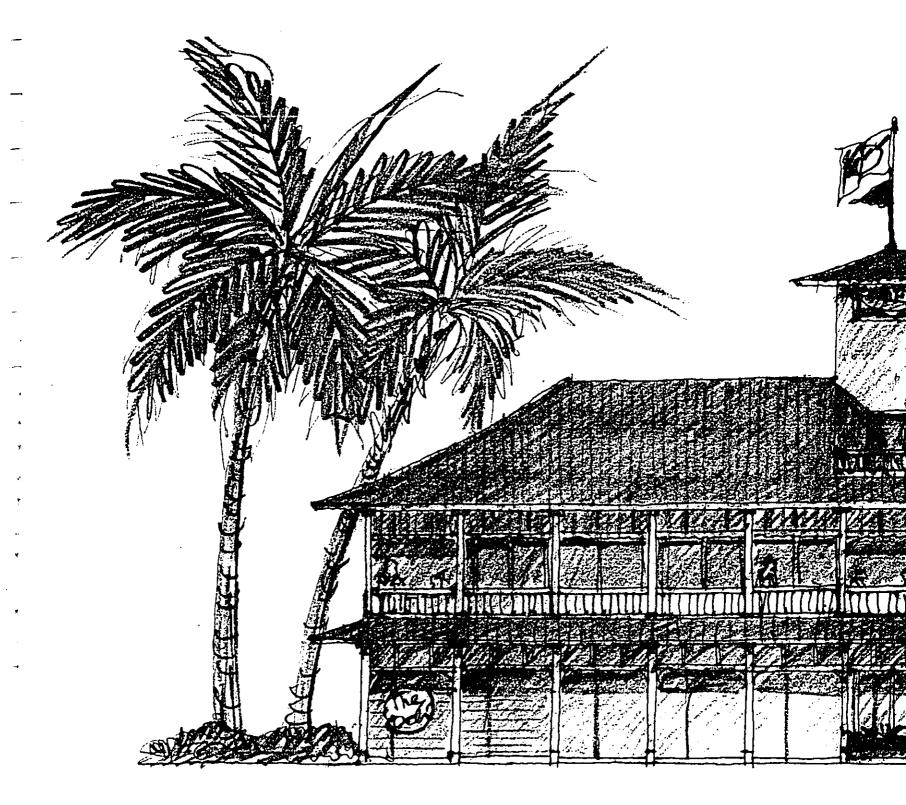
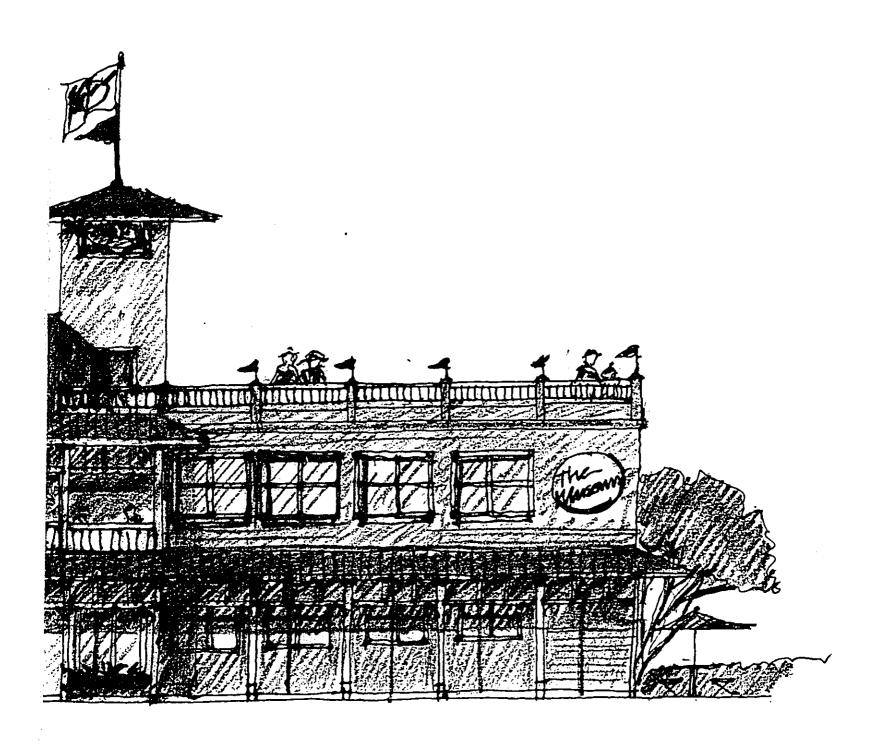


Figure 4-4 Front Elevation

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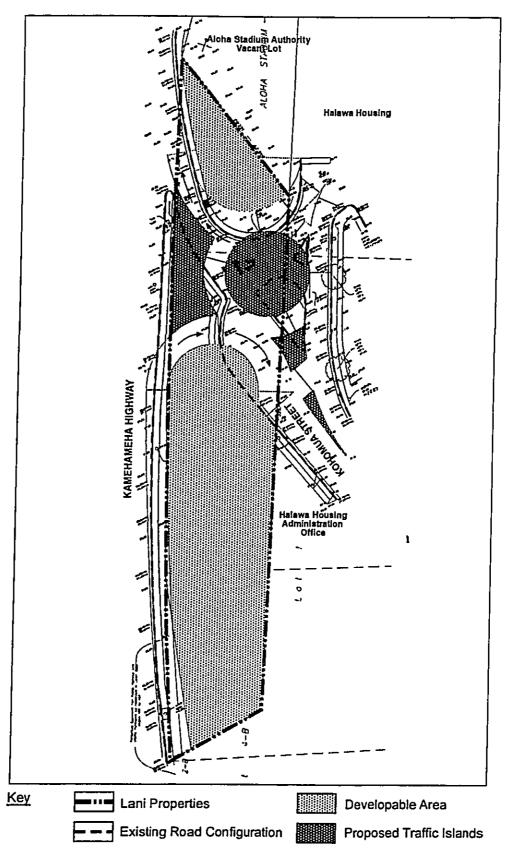


Figure 4-5 Conceptual Roadway Circulation Plan

Section 5.0 Conformance to Federal, State and City Plans and Programs

5.0 CONFORMANCE TO FEDERAL, STATE AND

CITY PLANS AND PROGRAMS

5.1 EXISTING LAND USE AND ZONING DESIGNATIONS

Current zoning and land use designations for the project site are as follows:

State Land Use District:

Urban

State Coastal Zone Management Program:

Consistent

Primary Urban Center Development Plan:

Residential

County Zoning District:

R-5, Residential

5.2 APPROVALS NEEDED

The proposed project will require the following government approvals and/ or permits:

- Independent Consideration for a Development Plan Land Use Map Amendment from the City Department of Planning and Permitting and Planning Commission
- Environmental Assessment Accepting agency is the City Department of Planning and Permitting
- Zone Change City Department of Planning and Permitting, City Council
- Connection to Federal Aid Highway State Department of Transportation

5.3 HAWAI'I STATE PLAN

The Hawai'i State Plan establishes a statewide planning system that provides goals, objectives, and policies which detail priority directions and concerns of the State of Hawai'i. The proposed project supports and is consistent with the following State Goals, Objectives, Policies and Priority Guidelines:

A. Economy - General

Objective: Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai'i's people.

B. <u>Physical Environment - Land, Air, and Water Quality</u> Objective:

1. Maintenance and pursuit of improved quality in Hawai'i's land, air and water resources

Policy:

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7. Encourage urban developments in close proximity to existing services and facilities.

C. Facility Systems - Transportation

Objective:

1. An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods.

Policies:

- 6. Encourage transportation systems that serve to accommodate present and future development needs of communities.
- 10. Encourage the design and development of transportation systems sensitive to the needs of affected communities and the quality of Hawai'i's natural environment.

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- D. Socio-cultural advancement Public Safety
- Objective: 1. Assurance of public safety and adequate protection of life and property for all people.

1. Ensure that public safety programs are effective and responsive to community needs.

5.4 HAWAI'I STATE FUNCTIONAL PLANS

The State Functional Plans implement the Goals, Objectives, Policies and Priority Guidelines of the Hawai'i State Plan. The Functional Plans provide the connection between State programs and State policy. Twelve functional plans have been adopted by the State Legislature which include the areas of Agriculture, Conservation Lands, Education, Energy, Health, Higher Education, Historic Preservation, Housing, Recreation, Tourism, Transportation and Water Resources. The applicant intends to respect the guidelines of all adopted Functional Plans.

The State Transportation Functional Plan:

The overall objective of the State Transportation Plan is to provide for the efficient, safe, and convenient movement of people and goods. Relative to this, the proposed project will incorporate practices to insure compatibility with the policies of the Plan. For example, one objective is to reduce travel demand through zoning and decentralization initiatives. The location of the convenience store adjacent to the neighboring apartment complexes will reduce travel demand. As such, there would be general compliance with the Plan. The impacts of the proposed project on existing transportation facilities are addressed in Section 6.4.1.

The remaining functional plans are not directly relevant to the proposed project.

STATE LAND USE DISTRICT BOUNDARIES 5.5

The project site is located within the State Urban District. 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 of 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. The proposed project does not require a change in the State Land Use designation; it is a permitted use within the Urban District.

5.6 HAWAI'I COASTAL ZONE MANAGEMENT PROGRAM

The Hawai'i Coastal Zone Management (CZM) Program is a framework for designing and carrying out permitted land and water uses and activities while respecting the resources and values expressed by the CZM objectives and policies. All property in the state is classified as Coastal Zone Management Area. However, the project site is not located within a Special Management Area.

Scenic and Open Space Resources

Objective: Protect, preserve, and, where desirable, restore or improve the quality of coastal

scenic and open space resources.

Policy C: Preserve, maintain, and, where desirable, improve and restore shoreline open

space and scenic resources.

Discussion: The third floor observation deck of the project will open up opportunities to

view the harbor to area residents and visitors. Improved landscaping onsite will

beautify the landscape and improve the aesthetic quality of the area.

Coastal Ecosystems

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and

minimize adverse impacts on all coastal ecosystems.

Policy C: Minimize disruption or degradation of coastal water ecosystems by effective

regulation of stream diversions, channelization, and similar land and water uses,

recognizing competing water needs.

Discussion: The project will continue to protect the coastal ecosystem from runoff. During

construction the use of best management practices will reduce runoff, and after

construction, landscaping vegetation will serve to filter runoff.

5.7 CITY AND COUNTY OF HONOLULU 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 a commercial facility advocates the following goal and policies of the City and County of Honolulu General Plan:

Economic Activity

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Objective A: To promote employment opportunities that will enable all the people of O'ahu

to attain a decent standard of living.

Policy: Encourage the development of small businesses and larger industries which will

contribute to the economic and social wellbeing of O'ahu residents.

Discussion: The proposed development will generate two types of employment

opportunities, those in construction and those in operations. The proposed

development will provide opportunities for small businesses to service the neighboring community and surrounding attractions.

Transportation and Utilities

To create a transportation system which will enable people and goods to move Objective A:

safely, efficiently, and at a reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and

convenient modes of travel.

Improve roads in existing communities to reduce congestion and eliminate Policy:

unsafe conditions.

The proposed development will improve the vehicular circulatory system by Discussion:

providing a new access from Kamehameha Highway onto Kohomua Street. The new intersection will be designed to provide safe vehicular and pedestrian access. The store's convenience to housing will encourage walking. Its

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location near bus routes also encourages non-auto travel.

Physical Development and Urban Design

To coordinate changes in the physical environment of O'ahu to ensure that all Objective A:

new developments are timely, well-designed, and appropriate for the areas in

which they will be located.

Provide more compact development and intensive use of urban lands where Policy:

compatible with the physical and social character of existing communities.

The proposed design will compliment the character of the residential Discussion:

neighborhood.

To develop Honolulu, 'Aiea, and Pearl City as the Island's primary urban Objective B:

Encourage the establishment of mixed-use districts with appropriate design and Policy:

development controls to insure an attractive living environmental and

compatibility with surrounding land uses.

The proposed convenience store is compatible with the surrounding residential Discussion:

uses and tourist attractions. Its development will enhance the mixed-use quality

of the community that is important to its vitality.

PRIMARY URBAN CENTER DEVELOPMENT PLAN 5.8

The subject property is designated Residential on the City and County of Honolulu's Primary Urban Center Development Plan Land Use Map. The project proposes to seek an Independent Consideration for a Development Plan Land Use Map Amendment to change a Community Commercial.

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 serves as guides for specific land use and development decisions.

5.9 ZONING DISTRICTS

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The purpose of the Land Use Ordinance for the City and County of Honolulu is to implement the General Plan and Regional Development Plan's policies for growth and development through the regulation of the uses permitted within different zoning districts. The property is designated R-5, Residential on the City and County of Honolulu's Zoning Map. Adjacent properties are zoned A-2, Apartment and surrounding zones include F-1, Military and B-1, Business use.

The proposed project is inconsistent with the existing Zoning Map designation. The proposed project will require a zone change to B-2 for purposes of commercial uses. As part of the zone change requirements, the applicant must also request for an Independent Consideration of a Development Plan Land Use Map Amendment, which also requires an Environmental Assessment.

Section 6.0
Socio-Economic Impacts

6.0 SOCIO-ECONOMIC IMPACTS

6.1 DEMOGRAPHIC

Existing Conditions: There are visitor and resident populations in the area where the project site is located. In 1990, there were 3,080 individuals and 801 households in the immediate area (Figure 6-1). 37% of the population was under 18 and the medium household income was \$28,350. Residents live in both multi-family and single-family housing.

The closest residents to the project site reside in two low-to-moderate income housing developments, Pu'uwai Momi and Makalapa Manor (Figure 6-1). There are 222 units in Pu'uwai Momi, a Housing and Community Development Corporation of Hawai'i (HCDCH) public housing complex, and 1,200 individuals reside in the complex. 122 families inhabit Makalapa Manor. Other apartment complexes in the area include Centre Court, Halawa View Estates, and Halawa Valley Estates.

The primary visitor destinations in the area are the U.S.S. Arizona Memorial, the U.S.S. Bowfin Submarine Museum, and Aloha Stadium. Each year more tourists visit the U.S.S. Arizona Memorial than any other museum or cultural attraction on O'ahu. In 1996, more than 1.4 million individuals visited the U.S.S. Arizona and 180,227 toured the U.S.S. Bowfin Submarine Museum. The Aloha Stadium hosts a variety of sporting and entertainment activities each year. For example, in 1998 nearly 50,000 individuals attended the Pro Bowl at the stadium. In addition, the swap meet at the stadium attracts thousands of visitors each week.

Although there is a large visitor population in the area, the overall character of the neighborhood is apartment residential. The business areas closest to the project site are depicted in Figure 6-2.

Anticipated Impacts and Mitigative Measures: This project will not displace residents or negatively impact visitors in the area. The proposed convenience store will provide important commercial services to visitors and residents in the area.

As depicted in Figure 6-1, there are no other business districts near the project site. The proposed zoning change would not negatively impact the surrounding character because the scale is very small and the convenience store/deli use is compatible with the neighborhood. The applicant does not own any other property in the area and therefore does not intend to expand his business activities at a later date. The vacant lot across from the project site is owned by the State of Hawai'i and their future intentions are unknown.

No mitigative measures are necessary.

6.2. ECONOMIC

Existing Conditions: Most residents of the area work in 'Aiea, Pearl City and Honolulu. Nearby commercial activities include K Mart and other commercial establishments at the Stadium Market Place and Stadium Mall.

Anticipated Impacts and Mitigative Measures: The new retail area will create both short-term and long-term economic benefits. The project will create short-term benefits as a result of design and construction employment. The project will create jobs for local construction 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's construction and related expenditures.

Long-term economic benefits include the creation of new retail jobs and increased government revenues generated from the retail activities. No mitigative measures are necessary.

6.3 HOUSING

The proposed project does not add nor subtract any housing units. Instead, the project is intended to support existing housing by providing retail and commercial services.

6.4 PUBLIC FACILITIES

6.4.1 Traffic and Transportation

Existing Conditions: The site is located along Kamehameha Highway, a State Highway. Kamehameha Highway is the major north-south arterial road near the project. The Highway links the airport and the Mapunapuna area to Pearl City. In the vicinity of the project site, Kamehameha Highway is a two-way divided roadway with two lanes in the northbound direction and three lanes in the southbound direction. The posted speed limit is 35 miles per hour. While the highway abuts the site, there is no direct access to the site from the Highway. Access to the site is from Kamehameha Highway through Kalaloa Street and Kohomua Street.

Kalaloa Street is a smaller street that connects Kamehameha Highway to Salt Lake Boulevard. Kalaloa is a two-way, two-lane road with a posted speed limit of 25 miles per hour. Kohomua Street is a residential two-way, two-lane road that connects Kalaloa Street to Kamehameha Highway. Kohomua Street currently has a right turn only access to northbound Kamehameha Highway.

Kamehameha Highway is a major transit corridor and several bus routes service the area. There is a bus stop just north of the site.

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Manual traffic counts were taken during the weekday morning and afternoon peak periods at the Kamehameha Highway/Kalaloa Street intersection and the Kalaloa Street/Kohomua Street intersection. A machine counter was used to record the traffic volumes from Kohomua Street to northbound Kamehameha Highway on May 15, 2001. According to the traffic count data, the morning (AM) peak hour of traffic on northbound Kamehameha Highway occurs from 7:15 AM to 8:15 AM and the afternoon (PM) peak hour of traffic occurs from 3:30 PM to 4:30 PM. Figure 6-3 displays the existing weekday peak hour traffic volumes.

Anticipated Impacts and Mitigative Measures:

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<u>Construction Period</u>: Construction activities will be appropriately scheduled to avoid unnecessary impacts on transportation. Contractors will be responsible for providing necessary traffic controls and precautions to maintain traffic safety on roadways fronting the project site.

Future Traffic Flow: A Traffic Impact Analysis Report (TIAR) was completed to determine the impact of the convenience store/deli and roadway change (Appendix B). The report concluded that traffic impacts of the project are anticipated to be nominal. The TIAR indicated that the Aloha Market will generate a total of 135 trips during the weekday morning of peak hour of traffic and 109 trips during the evening peak hour of traffic. See Figure 6-4.

The project will construct a right-turn access to Kohomua Street from northbound Kamehameha Highway. Based on the traffic count data, the diversion for non-project related traffic is not anticipated to be significant. It was estimated that approximately 50 percent of the existing traffic that enters Kohomua Street from Kamehameha Highway will divert to the new access resulting in a diversion of approximately ten trips during the morning peak hour of traffic and twelve trips during the evening peak hour of traffic. The majority of project traffic, however, is anticipated to use the new access to Kohomua Street.

The proposed improvements will have no effect or minor effects on surrounding intersections. The Kamehameha Highway and Kalaloa Street intersection will operate at acceptable levels. The intersection of Kalaloa Street and Kohomua Street will continue to remain free of traffic congestion. Right turn movement at the Kamehameha Highway/Kohomua Street intersection will experience slightly higher delays during the morning peak hour of traffic and will continue to operate at the current level of congestion during the afternoon peak hour traffic. The intersection of the project driveway and Kohomua Street forms an unsignalized "Tee" intersection. These intersections will operate at acceptable level levels.

In order to mitigate any adverse effects, a right-turn deceleration lane on northbound Kamehameha Highway for the new access to Kohomua Street is proposed. This deceleration lane can be implemented by extending the existing right-turn acceleration

lane at the Kamehameha Highway/Kalaloa Street intersection to the Kohomua Street access forming an auxiliary lane between the two intersections. In addition, a turn-around lane could be provided at the north end of Kohomua Street. A small radius circle would facilitate turn movements at the north end of Kohomua Street (Figure 4-7) The turning radius would effectively channel Pu'uwai Momi traffic into that parking area. During peak traffic periods, vehicles turning into the Pu'uwai Momi may pause before entering, however, the time saved by using the new exit from Kamehameha Highway should exceed the time spent traveling along the longer current access from Kalaloa Street.

The proposed crosswalks for the revised intersection at Kohomua and Kamehameha Highway will be elevated a few inches above the roadway surface. This design provides two major benefits. First, it improves pedestrian safety by elevating them and making them more visible to drivers. Second, they function as defacto speed bumps for traffic calming and safety.

6.4.2. Water

<u>Existing Conditions</u>: The Board of Water Supply's system provides potable water to the area. There is an existing water main fronting the property along Kohomua Street.

Anticipated Impacts and Mitigative Measures: The proposed development will require potable water. A hook-up can be established to the existing water main fronting the property. The small amount of water used for the retail center and landscaping is not expected to significantly impact the capacity of the area's water supply system. No mitigative measures are considered necessary.

6.4.3 Wastewater

Existing Conditions: There is no wastewater disposal system on the property at present. Local residential areas are served by the City and County of Honolulu Sewer System, which collects wastewater and transmits it to the wastewater treatment plant. The closest wastewater hook-up which would not require easements through private property is approximately 700 feet away at the intersection of Kalaloa and Kohomua Streets. There is another connection about 500 feet from the project site on Kalaloa Street. However, easements from the State would be required to access this connection.

Anticipated Impacts and Mitigative Measures: The project is not anticipated to generate a significant amount of wastewater. It is expected that the additional wastewater created by the project can be accommodated by the City system without adverse impacts on the current system.

6.4.4 Drainage

Existing Conditions: There is an existing drainpipe under Kamehameha Highway that funnels water off the site towards the airport.

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Anticipated Impacts and Mitigative Measures: The proposed project will utilize the existing drainage system. No mitigative measures are considered necessary.

6.4.5 Solid Waste

Existing Conditions: Municipal solid waste generated by local residents in the area is currently removed by City and private haulers. This waste is disposed at City landfills.

Anticipated Impacts and Mitigative Measures: Waste generated during construction will be appropriately managed temporarily in on-site storage areas and then later disposed offsite at a proper disposal site. Materials generated from clearing and grubbing activities will be disposed of separately from the other construction wastes.

The waste generated from the retail center will be collected by private haulers and transported to an appropriate City disposal facility on O'ahu. City waste disposal facilities are expected to be able to accommodate waste from this project without adverse effects on capacity.

6.4.6 Schools

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Existing Conditions: There are several schools found within one to two miles of the project site. To the north are 'Aiea Intermediate School, 'Aiea High School, Alvah A. Scott Elementary School and Gustave H. Webling Elementary School. South of the project site are Makalapa Elementary School, Radford High School, Salt Lake Elementary School, Pearl Harbor Elementary School, and Nimitz Elementary School.

Anticipated Impacts and Mitigative Measures: Construction of the retail center on this site will have no impact on the local schools and no mitigative measures are considered necessary.

6.4.7 Parks

Existing Conditions: Makalapa Park, a small community park, and Richardson Recreation Center are located close to the proposed development. Several other parks and playgrounds are found within one to two miles of the project site. 'Aiea District Park is north of the project site. To the east of the project site is Halawa District Park. Aliamanu Playground and Salt Lake District Park, the largest park in the area, are located to the southeast.

Anticipated Impacts and Mitigative Measures: The proposed project will provide commercial services to park and recreation center users. No mitigative measures are considered necessary.

6.4.8 Police

Existing Conditions: The site is located in the Honolulu Police Department, District 3, and Beat 366. District 3 encompasses the Pearl City area.

Anticipated Impacts and Mitigative Measures: It is expected that the impact on police services in the area will be negligible. If the operation becomes a 24 hour establishment, there will be a two person team working during the evening and early morning hours to increase safety and deter unwanted activity. Space will be available for a police work station, should the City be interested in locating there. This would improve police service to the immediate area and benefit the surrounding community.

6.4.9 Fire

Existing Conditions: There are three fire stations between one and 2.5 miles of the project site. They are 'Aiea Fire Station, Moanalua Fire Station, and Mokulele Fire Station.

Anticipated Impacts and Mitigative Measures: The expected impact on fire services in the area will be negligible.

6.4.10 Utilities

Existing Conditions: The Hawaiian Electric Company, Inc (HECO) serves the electrical needs of the surrounding residential area.

Anticipated Impacts and Mitigative Measures: The construction of the proposed retail center will not create significant demands on electrical services.

6.4.10 Other Issues

Existing Conditions: Concerns have been voiced regarding the possibility of alcoholic beverage sales.

Anticipated Impacts and Mitigative Measures: The application is for a convenience store and commercial zoning, so this issue is premature. Liquor sales, if pursued will be pursued during permits that will be needed from the Liquor Commission.

6.5 MAPS AND FIGURES

- 6-1 Surrounding Residential Areas
- 6-2 Existing Business Districts
- 6-3 Existing Traffic Volumes
- 6-4 Project Traffic

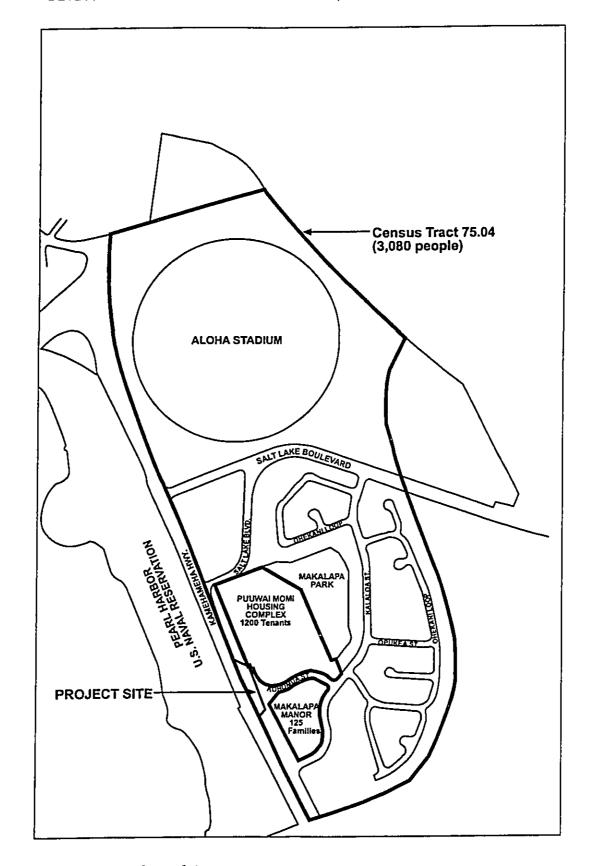
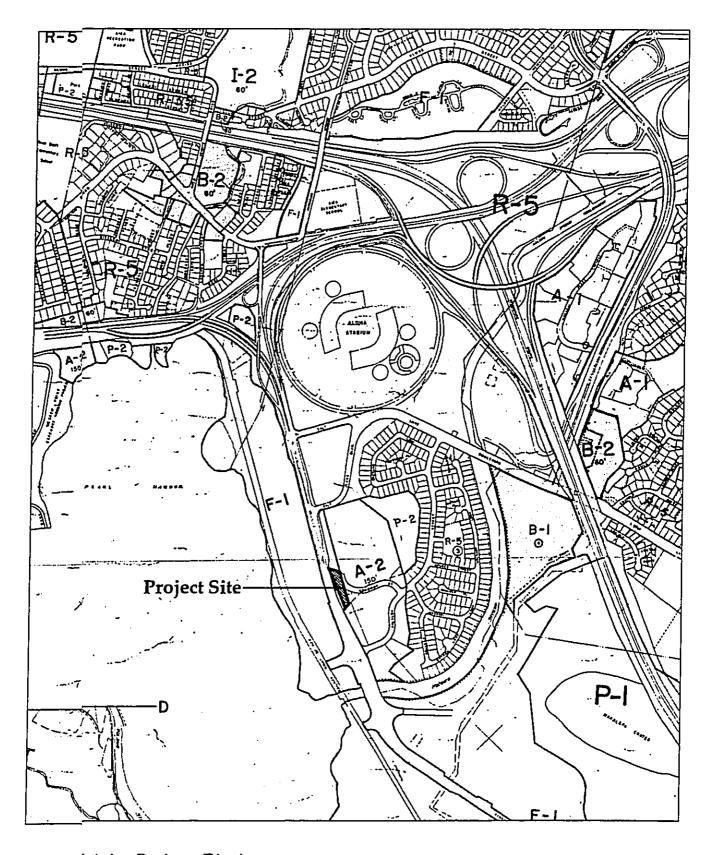


Figure 6-1 Surrounding Residential Areas

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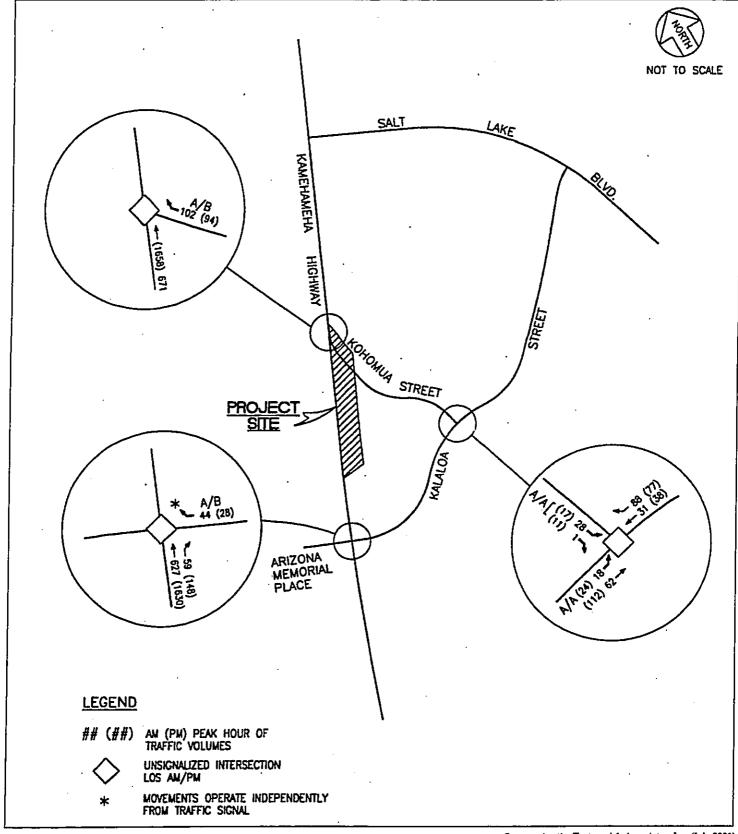
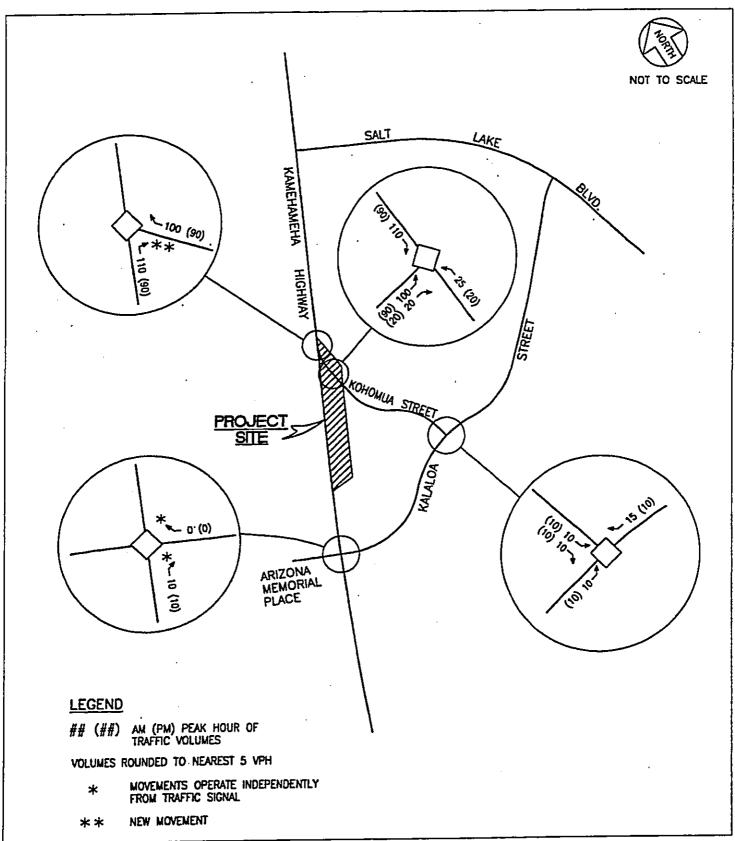


Figure 6-3 Existing Traffic Volumes

Source: Austin, Tsutsumi & Associates, Inc. (July 2001)

GROUP 70



Source: Austin, Tsutsumi & Associates, Inc. (July 2001)

Figure 6-4 Project Traffic

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Section 7.0 Environmental Impacts

7.0 ENVIRONMENTAL IMPACTS

7.1 NOISE

Existing Conditions: The primary noise sources in the area of the project site are related to traffic, neighboring residential complexes, and activities at the Aloha Stadium.

The potential noise receptors near the site include the neighboring residents. The Pu'uwai Momi housing complex is across the street from the project site, a distance of about 50 to 100 feet.

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 normal working hours.

State and County regulations have been established to limit construction noise generation. Compliance with existing regulations will mitigate construction noise generated by the project to acceptable levels.

The long-term operation of the retail center could create some additional traffic noise. However, any additional noise is not anticipated to be significant and no mitigative measures are required.

7.2 AIR QUALITY

Existing Conditions: Air quality on O'ahu is generally good and relatively low in pollution, except where there are large numbers of vehicles or when weather patterns create stationary air conditions.

The project site is adjacent to Kamehameha Highway and vehicles traveling on this road contribute to the air pollution levels in that area.

Anticipated Impacts and Mitigative Measures: The short-term effects on air quality during construction will be mitigated by compliance with the State Department of Health Administrative Rules, Title 11, Chapter 60 (Air Pollution Control for O'ahu) and the U.S. Soil Conservation Service's Erosion and Sediment Control Guide for Hawai'i. Potential control measures to reduce fugitive dust include frequent wetting down of loose soil afeas with water, use of windscreens, covering of open-bodied trucks during materials transport, and the washing down of tires on construction equipment.

Establishment of landscaping early in the construction schedule can also help control fugitive dust. This would initially require frequent watering to carry young plants through the dry season.

If necessary, increased vehicular emissions due to disruption of peak-hour traffic by construction equipment and/or commuting construction workers can be alleviated by moving the equipment and personnel to the site during off-peak traffic hours.

Long-term air quality conditions in the area are not anticipated to change or be substantially different from existing conditions once construction is completed. No mitigative measures are considered necessary.

7.3 VISUAL

Existing Conditions: The project site is located adjacent to an urban residential neighborhood in a relatively flat area. Pearl Harbor, separated from the site by the busy Kamehameha Highway, is within 1,500 feet of the project site.

The project site is currently an undeveloped lot without landscaping used as a construction equipment storage area.

Anticipated Impacts and Mitigative Measures: The nautical and Kama'āina design of the retail center will improve the visual character of the area through design and siting measures. The building and landscaping should provide visual interest and be aesthetically appealing.

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The project's scale and design will not have a significant negative impact on area views.

7.4 HISTORIC/CULTURAL ASSESSMENT

Existing Conditions: The project site is located in the Halawa Ahupua'a. According to Sites of O'ahu, there are two fishponds in the area. One is located at nearby Makalapa Crater and another is between Kauhua Island and the shoreline (Figure 7-1). The immediate project site is not associated with any other stories or legends and there are no known burials in the area. The project site is located near Pearl Harbor which is known as Puuloa or "long hill" in Hawaiian. Pearl Harbor has oysters and western settlers to the region gave it this name.

The area is also culturally significant because of the December 7, 1941, Japanese attack on Pearl Harbor. 2,395 men were killed when the Japanese demolished the U.S. Pacific fleet docked at Pearl Harbor. The U.S.S. Arizona is the final resting place for many of the ship's 1,177 crewmen who lost their lives during the attack. The U.S.S Arizona Memorial grew out of wartime desire to establish a memorial at Pearl Harbor to honor those who died in the attack. More than a million people visit the U.S.S. Arizona Memorial each year and many consider the area a sacred place.

The project site and the surrounding housing complexes are often referred to as "old Halawa Housing." Halawa Housing, constructed by the Navy for use as barracks during

(now called Housing and Community Development Corporation of Hawai'i). Demolition of the complex began in 1969 to make room for Aloha Stadium and federal highway improvements. Although much of the housing was dilapidated, many residents fondly remember Halawa Housing for its strong sense of community. At the time of the demolition, there was controversy over the destruction of the housing and the relocation of residents into other housing units on the island. Pu'uwai Momi and Makalapa Manor, were constructed nearby to house some of the displaced residents. The project site continues to be associated with old Halawa Housing and the sense of the community the complex represented even though there are currently no structures located on the project site.

Anticipated Impacts and Mitigative Measures: The proposed project will not significantly impact cultural resources in the area. The project site is located in a heavily urbanized area and is not associated with any significant Native Hawaiian sites. In the event that any previously unidentified sites are encountered during the site work and construction, work in the immediate area will cease. The State Historic Preservation Division and the Oahu Island Burial Council will be notified and work in the area will be suspended until further recommendations are made for appropriate treatment of cultural materials.

The nautical design of the project will compliment Pearl Harbor and the U.S.S. Arizona Memorial. No mitigation measures are considered necessary.

7.5 ARCHAEOLOGICAL

Existing Conditions: The project site has been disturbed as a result of its proximity to Kamehameha Highway. No significant archaeological features are known to exist within the project site.

Anticipated Impacts and Mitigative Measures: There are no known archaeological resources on the project site. In the event that any previously unidentified sites are encountered during the 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 archeological materials.

7.6 NATURAL FEATURES

7.6.1 Water Resources

Existing Conditions: There are no water resources located in the project site. The project site is located within 1,150 feet of Pearl Harbor and within 1,100 feet of Halawa Stream.

Anticipated Impacts and Mitigative Measures: The development of the project will not significantly impact water resources in the area. Convenience stores, delis, and retail spaces are generally not large water users. The area is relatively small and irrigation volumes are expected to be small. No mitigative measures are considered necessary.

7.6.2 Flood Plains Management

<u>Existing Conditions</u>: The existing flood zones were reviewed using the National Flood Insurance Program, Flood Insurance Rate Map (FIRM). The project site is located outside of any designated flood area and, according to the FIRM, is within "Other Areas Zone D: Areas in which flood hazards are undetermined" (Figure 7-2).

Anticipated Impacts and Mitigative Measures: Long-term impacts of the project on flood plains management is expected to be insignificant.

7.6.3 Wetlands Protection

Existing Conditions: The project site is not located in a wetland area.

Anticipated Impacts and Mitigative Measures: There will be no impact on wetlands and no mitigative measures are required.

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7.6.4 Coastal Zone Management

Existing Conditions: The project site is within 1,500 feet of Pearl Harbor and while located within the Coastal Zone Management Area, it is not within a Special Management Area. Kamehameha Highway separates the site from the coastal area.

Anticipated Impacts and Mitigative Measures: During the construction phase best management practices will be used. The completed project will include landscaping along the Pearl Harbor property line where runoff drains to an open swale. The vegetation will serve to filter the runoff. Given the low rainfall and the relatively small project site, runoff is expected to be a small amount.

7.6.5 Unique Features

There are no known unique features in the area.

7.6.6 Flora and Fauna

Existing Conditions: The project site constitutes a small parcel of land wedged between Kamehameha Highway and an urban residential neighborhood. The existing vegetation observed throughout the area consists of grass and there do not appear to be any endangered plant species.

The fauna of the project site consists of common birds and insects.

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, which may serve as habitat for area wildlife.

7.6.7. Open Space

Existing Conditions: The project site is located adjacent to Kamehameha Highway and an urban residential area. Makalapa Park, a small neighborhood park, is the largest area of open space in the area. The site is currently an under utilized 32,181 square foot island of fenced open space with no landscaping.

Anticipated Impacts and Mitigative Measures: Construction in the project area will eliminate a small area of open space. However, the open space is currently unattractive and not considered a neighborhood amenity. The proposed development, which is characterized by aesthetically pleasing design and landscaping, will enhance the surrounding neighborhood despite the elimination of the open space.

7.7 HAZARDS

7.7.1 Tsunami

The project site is not located in a tsunami inundation zone.

7.7.2 Nuisances and Site Safety

Existing Conditions: The proposed project will be located adjacent to Kamehameha Highway, a main thoroughfare in the area, and an urban residential area. The major site safety issue is pedestrian and vehicular safety.

Anticipated Impacts and Mitigative Measures: The traffic pattern will be redesigned with the consideration of pedestrian and vehicular safety. Elevated crosswalks will have a traffic calming influence and make pedestrians more visible.

7.7.3 Toxic Waste

Existing Conditions: There is no known toxic waste contamination on the project site. In March 2001, mercury was found at the nearby Pu'uwai Momi housing complex and across Kamehameha Highway at a former Navy pumping station. According to the Hazard Evaluation and Emergency Response Office (HARE) at the Department of Health, the mercury contamination was contained to these two sites in the area and all sites have been cleaned-up.

LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

<u>Anticipated Impacts and Mitigative Measures</u>: The proposed development will not generate any toxic wastes. The March 2001 mercury contamination occurred outside the project area. No mitigative measures are considered necessary.

7.7.4 Airport Clear Zone

Existing Conditions: The project site is not located in or near a Clear Zone at a civil or military airfield nor in or near an Accident Potential Zones at a military airfield.

Anticipated Impacts and Mitigative Measures: The proposed development will not impact a Clear Zone at a civil or military airfield. No mitigative measures are considered necessary.

7.8 MAPS/FIGURES

- 7-1 Map of Ahupua'a
- 7-2 Flood Insurance Rate Map (FIRM)

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LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT / ZONE CHANGE AND FINAL EA

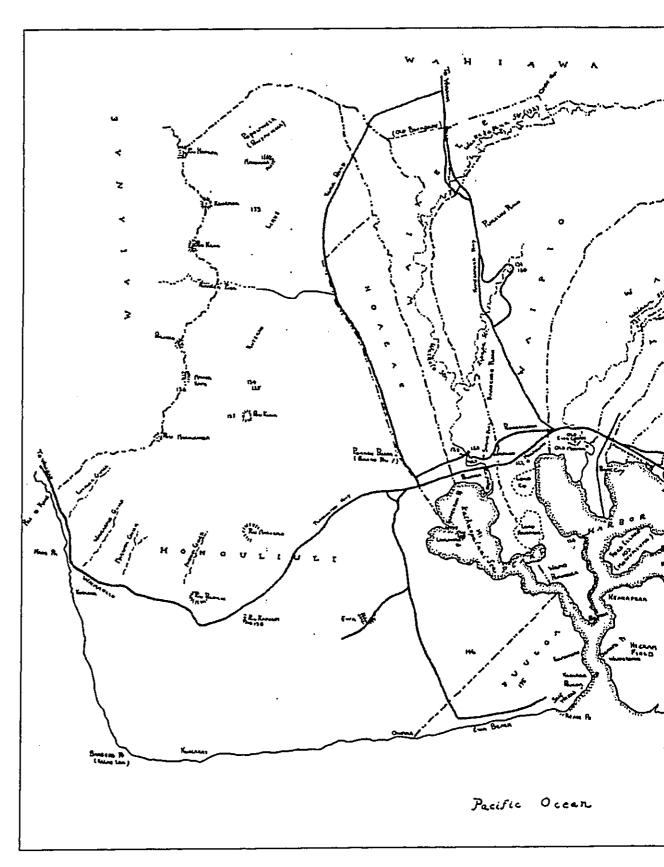
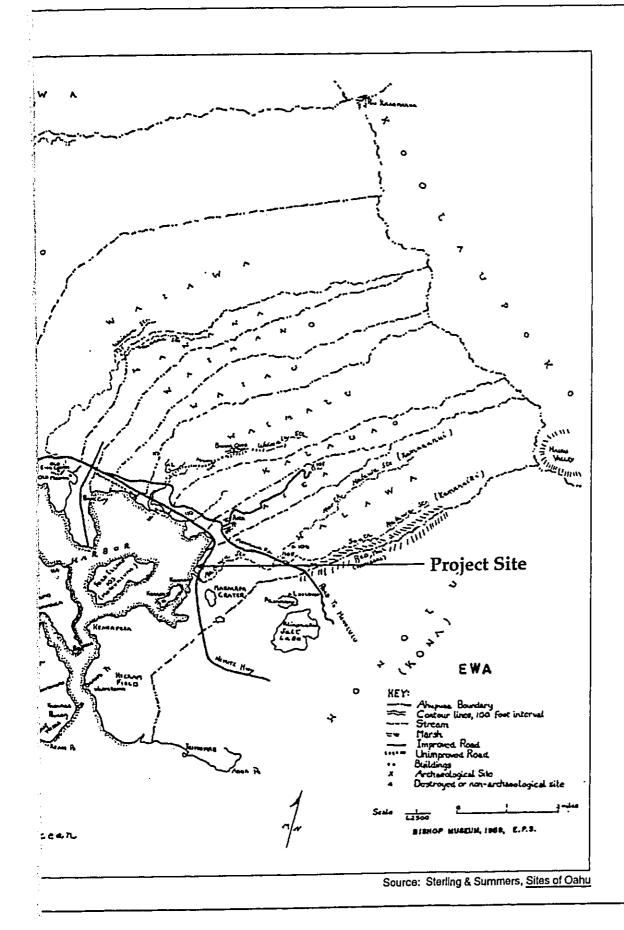


Figure 7-1 Map of Ahupua'a

Zoning Map No. 7 Halawa to Pearl City 1986

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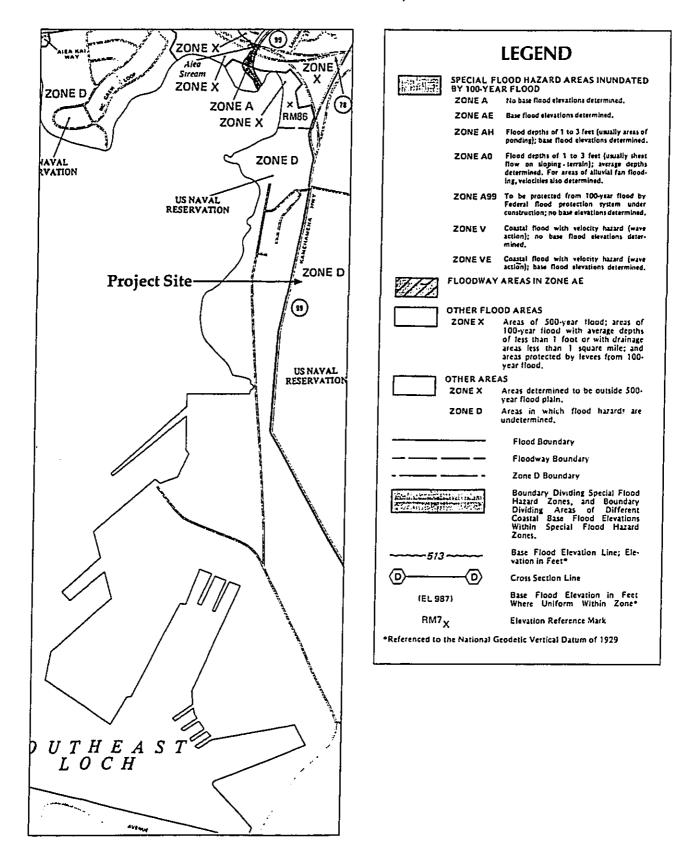


Figure 7-2 Flood Insurance Rate Map (FIRM) 150001 0110D

Zone D

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Section 8.0
Alternatives to the Proposed Projects

8.0 ALTERNATIVES TO THE PROPOSED PROJECT

8.1 NO-ACTION ALTERNATIVE

The "no-action" alternative would result in the continued use of the property as a storage area for construction equipment and supplies and one-way egress from Kohomua Street to Kamehameha Highway. The nearest convenience market for the neighboring residential community would continue to be more than a quarter mile away.

In this alternative, construction of the convenience store would not occur. Although this alternative would have no adverse environmental, noise, or visual impacts, no-action at the project site would prevent additional commercial services and transportation improvements from being provided to residents and visitors in the area. In addition, the continued use of the vacant lot for storage in this urban area is not ideal. It detracts from the visual quality of the neighborhood.

8.2 SINGLE FAMILY DEVELOPMENT WITH R-5 ZONING

The area is currently zoned R-5 so this alternative would not result in any change in zoning. Single-family homes would be developed on the property. The site can accommodate between 3-5 houses under this zoning.

The single-family use would be compatible with the surrounding apartment complexes. However, it may not be desirable to develop housing at this location because of its proximity to Kamehameha Highway. Under this alternative there would be no development of commercial amenities or transportation improvements.

8.3 CONVENIENCE STORE WITH B-1 ZONING

Under this alternative, the project would be constructed as proposed under the preferred proposal. The only difference would be that the area would be rezoned to B-1. The B-1 neighborhood business district zoning is generally applied to areas within or adjacent to urban residential areas, along local and collector streets, but not along major travel routes. The hours of operation would be limited to 6:00 a.m. to midnight. In addition, the maximum height of the structure is restricted to 40 feet.

A benefit of this alternative would be that, by limiting the hours of operation, traffic and pedestrian noise would decrease from midnight to 6:00 a.m. However, there are several negative consequences of the B-1 zoning designation. The project site is located along a major traffic route, Kamehameha Highway and the B-1 zoning is intended for commercial property on local and collector streets. In addition, by restricting the hours of operation and the height limit to 40 feet, the property owner's ability to successfully operate a business will be reduced.

8.4 GAS STATION & CONVENIENCE STORE

A third alternative to the proposed project would be to develop the site as a gas station and convenience store.

A gas station would provide additional benefits to nearby residents and to motorists traveling along Kamehameha Highway. However, a gas station would also have more impact on the immediate neighborhood by generating a greater volume of cars and noise and traffic in the area will increase. Also, potential environmental hazards would be increased due to the potential for contamination from gas tanks and pumps. Finally, the gas station pumps may standout visually from the existing residential neighborhood.

8.5 APARTMENT DEVELOPMENT WITH A-2 ZONING

Under this alternative, medium density apartments would be developed at the project site. The surrounding area is also zoned A-2 so this would be a compatible use.

This use would be more intensive than the current use, however, and would result in additional noise and traffic in the area. In addition, the neighborhood would not benefit from commercial development or roadway improvements. Site dimensions may make this option infeasible.

8.6 EVALUATION OF ALTERNATIVES

One of the most important issue for the evaluation of alternatives is the impact each alternative will have on the character of the neighborhood. Under the "no-action" alternative, the site will remain an undeveloped vacant lot which actually detracts from the character of the neighborhood. The single-family development alternative will not negatively impact the character of the neighborhood. However, under this alternative, the no action alternative and the apartment alternative, the area would not benefit from the development of commercial services and roadway improvements. The B-1 commercial development would develop the site in an aesthetically pleasing way and add commercial amenities to the area, serving both residents and tourists. The hours of operation would be from 6:00 a.m. to midnight, limiting noise and activity during the night but also limiting motorists' and residents' access to commercial services during those hours. The gas station and the apartment alternatives both represent a higher intensity of use at the site. A gas station would increase traffic and noise to a level incompatible with the surrounding residential uses.

The proposed retail center with B-2 zoning on the other hand, balances the benefits of commercial services with the importance of maintaining the residential character of the neighborhood. The 24-hour operation of the retail store is compatible with its location on Kamehameha Highway.

Section 9.0

Findings and Reasons for Supporting Anticipated Determination

9.0 FINDINGS AND REASONS SUPPORTING

ANTICIPATED DETERMINATION

9.1 ANTICIPATED DETERMINATION

After reviewing the significance criteria outlined in Chapter 343, Hawai'i Revised Statutes (HRS), and Section 11-200-12, State Administrative Rules, Contents of Environmental Assessment, it is anticipated that the proposed action will not result in significant adverse effects on the natural or human environment. A Finding of No Significant Impact (FONSI) is anticipated for this project.

9.2 REASONS SUPPORTING THE ANTICIPATED DETERMINATION

The potential impacts of the development and future use after construction of the Lani Properties Halawa Site Project have been fully examined and discussed in this Environmental Assessment. As stated earlier, there are no significant environmental impacts expected to result from the proposed action. This determination is based on the following assessments:

- 1. The proposed project does not involve an irrevocable loss or destruction of any natural or cultural resources. The property has been disrupted by the construction of the Kamehameha Highway. In addition, the site is being used as a construction storage area. Therefore, no significant natural resources are present.
- 2. The proposed project does not curtail the range of beneficial uses of the environment. The project area is situated in an extensively developed area within the City and County of Honolulu, with existing residential structures and major roadway infrastructures.
- 3. The proposed project does not 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. As previously stated, the area has been in urban development since the development of the Kamehameha Highway. Therefore, the area does not contain any significant natural resources. Any construction-related impacts of noise, dust, and emissions will be mitigated by compliance with the State Department of Health Administrative Rules.
- 4. The proposed project does not substantially affect the economic or social welfare of the community or State in a negative manner. It will have a positive effect on this criteria by increasing jobs and possibly reducing crime in the immediate vicinity.
- 5. The proposed project does not substantially affect public health. Any construction-related impacts of noise, dust and emissions would be mitigated by compliance with the State Department of Health Administrative Rules.

LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

- 6. The proposed project does not involve substantial or adverse secondary impacts, such as population changes or effects on public facilities. The proposed project also does not involve a substantial degradation of environmental quality. As stated earlier, the site and its surrounding area have been extensively affected by nearby apartment structures and related roadway improvements.
- 7. The proposed project does not involve a substantial degradation of environmental quality.
- 8. The proposed project will not have a cumulatively deleterious effect upon the environment or involve a commitment to larger actions.

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- 9. The proposed project does not substantially affect any rare, threatened or endangered species, or its habitat. The area has been extensively impacted by the development of the Kamehameha Highway and neighboring residential structures and related parking areas. Therefore, no rare, threatened or endangered species or habitats of flora or fauna is present at the site.
- 10. The proposed project does not detrimentally affect air or water quality or ambient noise levels. The project area is situated more than 200 meters from the shoreline of Pearl Harbor. Any construction-related impacts of noise, dust and emissions would be mitigated by compliance with the State Department of Health Administrative Rules.
- 11. The proposed project is not likely to suffer damages 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.
- 12. The proposed project will not affect scenic vistas and viewplanes identified in County or State plans or studies. The planned improvements will not substantially affect the scenic vistas or view planes makai towards Pearl Harbor or mauka towards Halawa Heights.
- 13. The proposed project will not require substantial energy consumption. Construction of the project will not require substantial energy consumption relative to other similar projects.

Based on the above findings, further consideration of the project's impacts through the preparation of an Environmental Impact Statement is not warranted. A Finding of No Significant Impact (FONSI) is anticipated for this project.

Section 10.0

References

10.0 REFERENCES

- City and County of Honolulu, 1983 and as amended. Comprehensive Zoning Ordinance.
- Federal Emergency Management Agency, September 30, 1995. FIRM Flood Insurance Rate Map City and County of Honolulu, Panel Number 150001-0110D; Prepared for the National Flood Insurance Program.
- Sterling, Elspeth P. and Catherine C. Summers: Sites of O'ahu; 1993.
- The Department of Business, Economic Development and Tourism, 1997 State of Hawai'i Data Book.
- United States Census Bureau, 1990 Census, Census Tract 75.04.
- United States Geological Survey, Topographic Map, 1999. Pearl City Quadrant.
- United States Department of Agriculture, Soil Conservation Service, January 1971. Soil Survey of the Island of O'ahu.
- University of Hawai'i, Department of Geography. 1983. Atlas of Hawai'i.

Section 11.0

List of Agencies Contacted

11.0 LIST OF AGENCIES CONTACTED

11.1 AGENCIES AND PUBLIC CONTACTED IN PRE-CONSULTATION

Agencies, organizations and interested parties that were consulted in the preparation in the Draft Environmental Assessment are listed below. Comments and responses are provided in Appendix A.

DISTRIBUTION LIST	RECEIVED EANP	COMMENTS RECEIVED	RECEIVED DRAFT EA	COMMENTS RECEIVED
A. U.S. Federal Agencies				RECEIVED
U.S. Army Corps of Engineers – Pacific Ocean Division	X		X	Х
U.S. Department of the Interior - Fish and Wildlife Service	X		X	
Naval Base Pearl Harbor, Commander	X		X	
Federal Aviation Administration	X	X	X	
B. State of Hawaii Agencies				
Department of Accounting and General Services	X	Х	X	Х
Environmental Health Division, DOH	X	X	Х	X
Office of Environmental Quality Control	X	X	X	Х
Department of Business, Economic Development & Tourism	X		X	
Office of Planning, DBEDT	X		X	
Department of Land and Natural Resources	X		X X	
Historic Preservation Division, DLNR	X	X	X	X
Department of Health	X		X	
Department of Defense	X		X	
Department of Transportation	X		X	
Office of Hawaiian Affairs	X	X	X	X
University of Hawaii - Environmental Center	X		X	
University of Hawaii – Water Resources Research Center	Х		X	
Housing and Community Development Corporation of Hawaii (HCDCH)	X		Х	Х
C. City and County of Honolulu				
Mayor Jeremy Harris	X		X	

LANI PROPERTIES: ALOHA MARKET

DEVELOPMENT PLAN LAND USE AMENDMENT/ZONE CHANGE AND FINAL EA

Department of Design and	X	X	X	-
Construction				
Department of Parks and Recreation	X		X	
Department of Planning and	X		X	
Permitting				
Department of Human Resources	X X		X	
Department of Transportation	X	X	X	
Services				
Department of Environmental	X		X	
Services			<u> </u>	
Department of Facility Maintenance	X		X	
Board of Water Supply	X	X	X	X
Fire Department	X	X	X	X
Police Department	X	X	X	X
Neighborhood Commission Office	X		X	
D. Other Parties				
Aiea Neighborhood Board	X		X	
Puuwai Momi Tenant Association	X		X	
Aloha Stadium Authority	X	•	X	
Councilman Romy Cachola	X		X	
Councilman Gary Okino	X		X	X
State Representative Bob	X		X	
McDermott				
State Senator Norman Sakamoto	X		X	
Makalapa Manor Community	X		X	
Association				
Salt Lake Neighborhood Board	X		X	
Aiea Community Association	X		X	
Aiea Public Library			X	
Foster Village Community			X	•
Association	_			

In addition, Informational Presentations were made to the Community Representatives and Organizations:

2

Councilman Gary Okino – 3/30/01

Councilman Romy Cachola - 3/28/01

Aiea Neighborhood Board - 5/14/01

Salt Lake Neighborhood Board - 5/10/01

Aiea Community Association - Not scheduled at this time

Foster Village Community Association - Not scheduled at this time

Makalapa Manor Community Association - 4/16/01, 7/23/01

Senator Norman Sakamoto – 4/20/01

Appendix A
Pre-Consultation Comments and Responses

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Federal Aviation Administration U.S. Department of Transportation

Western-Pacific Region Real Estate and Utilities Team, AHNL-54B

P. O. Box 50109 Honolulu, Hawaii 96850-5000

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April 3, 2001

Attn: Mr. George Atta, AICP Group 70 International, Inc.

Chief Community Planner 925 Bethel Street, 5th Floor Honolulu, Hawaii 96813

Dear M. Atta:

comments from the Federal Aviation Administration regarding Lani Properties' proposed project to develop their Halawa Property located at TMK 9-9-03-68 and 69 in Honolulu, Oahu, Your letter of March 23, 2001, requested pre-consultation Hawaii.

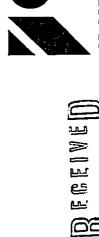
there were no comments or concerns regarding the proposed After review of the project location, the FAA found that

We appreciate this opportunity to review your proposal. Please contact me at 541-1236, if there are any questions.

Sincerely,

Oanson.

Darice B. N. $lac{1}{2}$ Young Realty Contracting Officer



July 2, 2001

GROUP 70

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Skery LB. Scaman, AlA, ASID Nomina G.Y. Hong, ALA Lams Unshinato, MA Riph E. Patinace, ACP Ray II Salasi AIA, CM Suphen H. Yuen, MA Hershi High, 313

Ometa L. Charge, AV.

Christing M. Ruskish, MCP fether II. Overton, ACP Boy A brone, MA, CM Dear H. Kitanara, RA Vorta J. Seett, RA Paul P. Chenney, MA George L. Mill. ARD Frank D. McCoe. RA Sund M. Jon. ALA Kathiyn A. Vant

Dony att Sincerely,

Darice B. N. Young, Realty Contracting Officer Federal Aviation Administration U.S. Department of Transportation P.O. Box 50109

Honolulu, Hawaii 96850-5000

Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation

Dear Mr. Young:

Thank you for your letter dated April 3, 2001, regarding the Lani Properties-Halawa Sife. * We acknowledge your statement that you do not have comments or conceins regarding the proposed development.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

GROUP 70 INTERNATIONAL, INC.

Chief Community Planner GEORGE ATTA, AICP

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BENLEUM J. CAYETANO COST PNOR

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES PO BOX 119, HOROLIAU, HAWAII SCATO STATE OF HAWAII

(P) 1221.1

Att 29 25

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GROUP 70

Mr. Gcorge Atta Group 70 International, Inc. 925 Bethel Street, 5th Floor Honolulu, HI 96813

Dear Mr. Atta:

Subject: Lani Properties - Halawa Site Pre-Consultation for Environmental Assessment

Thank you for the opportunity to review and comment on the subject project's pre-consultation information. The proposed development in Halawa does not directly impact any of our facilities, therefore, we have no comments.

If there are any questions regarding the above, please call Mr. Tyler Fujiyama of the Planning Branch at 586-0492.

Sincerely,

GORDON MATSUOKA Public Works Administrator

July 2, 2001

GROUP 70

Sheri B Scattan MA, 2010 INTERNATIONAL Dance I, Nichinato, MA Ralph F, Partasene, MCP Stephen II, Nuen, AlA Finance Odl. MV, MCP Neutra GY Heng, ALA Rig H. Nibel, MA, CM Hereby Bidd, ALA

Roy & Bootne, MA, CM Frack B. McCae, RA Objective M. Rayoda, MCP Lifter H Overton MCP Dean H. Kramma, RV Paul P Change, MA Gerry LAM. MCP Suma J. Keet. R. Steam W. Jan. 314 Kathern V Num

Mr. Gordon Matsuoka, Public Works Administrator State of Hawaii

Department of Accounting and General Services Honolulu, Hawaii 96810 P.O. Box 119

Draft Environmental Assessment Pre-Consultation Subject: Lani Properties-Halawa Sile

Dear Mr. Matsuoka:

Thank you for your letter dated March 29, 2001, regarding the Lani Properties-Halawa • Site. We acknowledge your statement that the proposed development does not directly impact any of your facilities and therefore, you have no comments.

LINEL CHAPE MA

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

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GEORGE ATTA, AICP Chief Community Planner

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

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STATE OF HAWAII
DEPARTMENT OF HEALTH
RO. BOX 3378
HONOLULU, HAWAII 96801 April 9, 2001

RECEIVE(D)

GROUP 70

Pre-Consultation Environmental Assessment Subject:

Dear Mr. Ayra.

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

Mr. George Atta

Lani Properties - Halawa Site

Thank you for allowing us to review and comment on the subject proposal. We do not have any comments to offer at this time. However, we look forward to reviewing and commenting on the Draft Environmental Assessment once that document is forwarded to our office.

Sincerely,

Environmental Health Administration GARY GILL Deputy Directo

July 2, 2001

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Mr. Gary Gill, Deputy Director Environmental Health Administration GROUP 70 INTERVATIONAL

Honolulu, Hawaii 96801 Department of Health State of Hawaii P.O. Box 3378 Frank Odl, Alk ACP Name of Y. Hong, All

Draft Environmental Assessment Pre-Consultation Neal is somen all, will Subject Lani Properties-Halawa Site

Dear Mr. Gill:

Boy'H Ndwi, MA, CM James I. Sidimato, MA R.Jplo F. Portmore, MCP

Hanhi Hala MA

Support H. Yurn, MA

Loub L Change MA

Thank you for your letter dated April 9, 2001, regarding the Lani Properties-Halawa Site. We acknowledge your statement that you have no comments at this time.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process. Sincerely, Don H. Kamura, RA Paul P. Cheering, ALA WAYNEL AND News J Nest, RA

CROUP 70 INTERNATIONAL, INC. Dony att frank B. McGre. RA Universe M. Randal, MCP Stuart U. Jen., MA En A Inkac. All. LN Kehna 1 Ass

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GEORGE ATTA, AICP Chief Community Planner

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STATE OF HAWAII

OFFICE OF ENVIRONMENTAL QUALITY CONTROL 235 SOUTH EXTRAMASTRUST HONOLUL MANAGEMENT TELEMONTOR TO THE STATE OF PACCINAL MANAGEMENT OF THE STATE OF PACCINAL ROOT IN STATE OF THE STATE OF TH

April 4, 2001

Honolulu, Hawaii 96813-4307 925 Bethel Street, Fifth Floor Group 70 International, Inc. Chief Community Planner Mr. George Atta

Re: Lani Properties - Halawa Site

Dear Mr. Atta,

We have received the description of the subject project provided by your letter dated March 23, 2001, and suggest the following:

- The area of the proposed site is impacted by normal heavy traffic impacts to surrounding business and normal traffic using this busy thoroughfare should be addressed.
 - Community input is highly advised.

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,

your Lin Gélevieve Salmonson Director

INTERNATIONAL GROUP 70

July 2, 2001

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

FORES OB, AIL, MIT Mentan G.Y. Heng, ALA

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APR - 5 2001 GROUP 70

Subject: Lani Properties-Halawa Sile Draft Environmental Assessment Pre-Consultation

Dear Ms. Salmonson: Ment B Namo, AlA, Avil)

Thank you for your letter dated April 4, 2001, regarding the Lani Properties-Halawa Site. Our responses to your comments are provided below.

Ralph E. Datmere, MCP

Nighkin II. Yukin, MV Linds I. Chang, AlA

Paul P. Chemey, MA. Dean H. Neamara, RA.

James I. Nebimeter, MA. Roy H. Adec, ALS, Col.

Handu Hich, A13

Traffic Impact: A traffic impact shudy will be included in the Draft Environmental Assessment. The proposal includes a re-configuration of the traffic pattern which will benefit surrounding businesses and residents.

Community Input: Presentations have been made to several community groups in the area including impacted neighborhood boards and resident associations. We will continue to work with the community as the project proceeds.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

Sincerely,

Frank B. McCoc, RV Christing M. Rosenda, AJCP

YULL I John, ALI

Jeffer H. Osemen, MCP. Ret A Instite, MA, CM

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GROUP 70 INTERNATIONAL, INC.

Chief Community Planner GEORGE ÁTTA, AICP Son

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DEPUTIES JANET E. EAMEG LAWEE MEMOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESETVATION DIVISION Kabubhawa Bulding, Room 568 601 Kamožia Boulevard Kapolal, Hawaii 96707

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Chief Community Planner

George Atta, AICP

April 26, 2001

Group 70 International

925 Bethel Street

Honolulu, Hawaii 96813

Dear Mr. Atta:

DOC NO: 0104EJ19 LOG NO: 27344

Chapter 6E-42 Historic Preservation Review - Pre- EA Consultation for Lani Properties Halawa Site Halawa, 'Ewa, O'ahu TMK: 9-9-003:068, 069 SUBJECT:

Thank you for the opportunity to provide comment for the Environmental Assessment for the Lani Properties Halawa Site. Lani Properties is seeking a zone change from R-5 review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the project areas. improvements include redesigning vehicle and pedestrian circulation in the area. Our to B-2 in order to develop a three-story commercial building on these parcels. Other

A review of our records shows that there are no known historic sites at this location. highly unlikely that historic sites remain. Therefore, we believe that this action will This area has undergone extensive modification during the re-development of Kamehameha highway, the Honolulu Stadium and the existing housing, making it have "no effect" on significant historic sites.

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027.

State Historic Preservation Division -Don Hibbard, Administrator

July 2, 2001

Department of Land and Natural Resources Kahuhihewa Building, Room 555 601 Kamokila Boulevard Mr. Don Hibbard, Administrator, State Historic Preservation Division GROUP 70 147011111111

Kapolei, Hawaii 96707

Fracto S. Och. MA, MCP

Version G.Y. Berne, MA

Subject Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation Sheri H. Santa, ALA, AMD

Dear Mr. Hibbard:

Junes I Nebrason, MV Raph I. Portmort, MCP Septem II Yuca, MA

Linch L Chang ALA

Roy H. Saled, MA, CM.

Herste Hall, MV

Thank you for your letter dated April 26, 2001, regarding the Lani Properties-Halawa Sile. We acknowledge your statement that there are no known historic siles at this location and that your office believes that this action will have "no-effect" on significant historic sites.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

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Georgie I, Mrs. ARCP.

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Near H. Kammata, KV. Paul P Chemos, MA

Sincerely,

Frank B. McGae, RA Chastine M. Borteda, MCP Street W. Jon., MA

Ray V Image, U.A. CM

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GROUP 70 INTERNATIONAL, INC.

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PHONE (808) 554-1888

FAX (BOE) 594-1865

STATE OF HAWA!!
OFFICE OF HAWALN'S AFFAIRS
711 KAPTOLAH BOLLEVARD, SUITE 500
HOMOLULU, HAWAT 198813

E O E I V E |

APR - 6 2001

GROUP 70

March 30, 2001

Lani Properties - Halawa Site - Pre Consultation for Environmental Assessment

Subject:

925 Bethel Street - Fifth Floor Honolulu, HI 96813-4307

Chief Community Planner **GROUP 70 International**

Mr. George Atta

Dear Mr. Atta:

Thank you for the opportunity to comment on the above referenced project. At this time, the Office of Hawaiian Affairs has no comments on the proposed project, but looks forward to the opportunity to review and comment on the Draft Environmental Assessment. If you have any questions, please contact Jerry B. Norris at 594-1847.

Sincerely,

Colon C Capping

Colin C. Kippen, Jr.

Deputy Administrator

OHA Board of Trustees Mr. Randall Ogata, OHA Administrator ဗ္ဗ

July 2, 2001

Mr. Colin Kippen, Jr., Deputy Administrator Office of Hawaiian Affairs GROUP 70 ENTERNATIONAL

711 Kapiolani Boulevard, Suite 500 Honolulu, Hawaii 96813 State of Hawaii

Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation

Dear Mr. Kippen:

Sheryl B Seaman, Ath. AMD Historia High, AM

Lones I Stehinner, MA Rilph E. Potmore, MCP

Nephen H. Yuen, MA

linch t. Chung. Al.A.

Ray H. Naber, MA, CM

Francis N. Oda, AIA, AICP Nomun G V. Hing, ALI Thank you for your letter dated March 30, 2001, regarding the Lani Properties-Halawa * Site. We acknowledge your statement that you do not have comments at this time regarding the proposed development.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process. GROUP 70 INTERNATIONAL, INC. Sincerely, Dean II Kidantura, RA Paul P. Chorney, MA. Geograf, Ann. AICP Somma J. Scott, RA.

Chrystee M. Rootells, MCP Jeffrey H. Oxenion, MCP. Buy A lange, MA, USI Frank B. McCirc. R.V. Start M. Jone, ALA Kadavn A Van

GEORGE ATTA, AICP Georg

Chief Community Planner

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DEPARTMENT OF DESIGN AND CONSTRUCTION

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GROUP 70

ERC G. CRSPIN, ALA ASSISTANT DRECTOR

GEORGE T. TAMASHERO, P.E. DERUTY DIRECTOR

DC-686

April 17, 2001

Group 70 International, Inc. 925 Bethel Street, Fifth Floor Honolulu, Hawaii 96813-4307 Mr. George Atta, AICP

Dear Mr. Atta:

Lani Properties - Halawa Site Pre-Consultation for Environmental Assessment Subject:

This is in response to your request of March 23, 2001 to review and comment on the subject matter.

It is premature to make an assessment at this time, but we would appreciate being consulted during the Environmental Assessment process.

Should there be any questions, please contact Douglas Collinson of my staff at 527-6375.

aldhorin Very truly yours,

RAE M. LOUI, P.E.

July 2, 2001

Mr. Rae M. Loui, P.E., Director Department of Design and Construction City and County of Honolulu 650 South King Street, 11th Floor Honolulu, Hawaii 96813 GROUP 70

INTERNATIONAL

Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation

New J II Scanum, AIA, ANID

Harda High, ALA

Norman G.Y. Hong, MA

Francis S Octo, MA, AICP

Dear Mr. Loui:

Roy II. Marel, AIA, CSI James I. Nishamata, MA Rafah E. Pontonare, MCP sepikan II. Yukan, MA

Incl. Churg. All

Thank you for your letter dated April 17, 2001, regarding the Lani Properties-Halawa* Site. We acknowledge your statement that you do not have comments at this time regarding the proposed development.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the cnvironmental review process.

Sincerely,

Jeffrey H. Oscetom, MCP

George L. Atta, AIGP.

Americal News, RA

Paul P. Choring, ALA Dean II. Kitamura, RA

Kathyn V Nam Box A Ironne, MA, CM

GROUP 70 INTERNATIONAL, INC.

Gery at GEORGE ATTA, AICP Chief Community Planner

Christine M. Rustola, MCP.

Strait M. Jon., MA.

Frank B Net ree, RA

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DEPARTMENT OF TRANSPORTATION SERVICES CITY AND COUNTY OF HONOLULU

JERENT HARRIS

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GROUP 70

April 12, 2001

CHERTL D SOON

GEORGE TREOKE MITAMOTO PERUTY PIPECTOR

TPD3/01-01329R

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

Mr. George Atta, AICP

Dear Mr. Atta:

Subject: Lani Properties - Halawa Site

In response to your March 23, 2001 letter, the project information provided was reviewed. The draft environmental assessment should include a traffic impact study that addresses the project's impact on the character of the surrounding area and the traffic level-of-service. In addition, any proposed miligative measures should be included in the study.

We look forward to receiving a copy of the draft environmental assessment. Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation Planning Division at 527-6976.

Sincerely,

CENT A Porm CHERYL D. SOON

Director



July 2, 2001

GROUP 70 INCOLLANGINA

Ms. Cheryl D. Soon, Director Department of Transportation Services City and County of Honolulu 711 Kapiolani Boulevard, Suite 1200 Honolulu, Hawaii 96813 Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation Shraf B School, MA, AsiD

FURIN OND, AIM, MIT

Nomen G Y. Hong. AlA

Dear Ms. Soon:

Janes I. Sobinsko, AACP Ralph E. Pottmane, AICP

Nephan H. Yuen, MA

Inch L Cheng, MA

Roy H. Salice, MA, CM.

Horb Heb. MA

Thank you for your letter dated April 12, 2001, regarding the Lani Properties-Halawa. Site. Our responses to your comments are provided below. Traffic Impact Study: A traffic impact study has been prepared that addresses the project's impact on the character of the surrounding area and the traffic level-of-service. Mitigative measures will be included in the Draft Environmental Assessment.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

Sincerely,

Litter II Overtien, ACP

Authorn V Vans

George LAnn, MCP Sornel Nec. RV

Parkty Chorney, MA Dyan (H. Kitamen, RA

GROUP 70 INTERNATIONAL, INC.

Chinaine V. Riwtold, AICP

Stead M. Jan. Al.A.

Box A. Institute, MA, CM. Farek B. McCoc, RA

GEORGE ATTA, AICP

Chief Community Planner

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BOARD OF WATER SUPPLY

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



EDDE FLORES, Ps., Chairman CHARLES A. STED, Vos-Chairman JAN MLY: ANN HERBERT SK. KADPUA, SR. BARBARA KM STANTON

JERESAY HARRIS, Mayor

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BRIAN K. MINAAL, Ex-Officio ROSS & SASAMARA, Ex-Officio

CLFFORD S. JAJOLE Manage and Chef Express

April 6, 2001

Honolulu, Hawaii 96813-4307 925 Bethel Street, Fifth Floor Chief Community Planner Group 70 International, Inc. George Atta, AICP

DEGEIVE APR 1 0 2061

GROUP 70

Dear Mr. Atta:

Environmental Assessment Regarding Lani Properties Commercial Development Project at their Halawa Site, Halawa, Oahu, Hawaii, TMK: 9-9-03: 68 and 69 Your Letter Dated March 23, 2001 Regarding Pre-Consultation for the Subject:

Thank you for the opportunity to review and comment on the proposed commercial development.

We have the following comments:

- The existing water system is presently adequate to accommodate the proposed commercial development. **-**:
- 2. There are no existing services to the project site.
- If a three-inch or larger meter is required, the construction drawings showing the installation of the water meter should be submitted for our review and approval, e,
- The proposed project is subject to Board of Water Supply cross-connection control requirements prior to the issuance of the building permit application. 4.

We reserve further comment until we review the Draft Environmental Assessment.

If you have any questions, please contact Kathryn Fujikami at 527-5221.

Very truly yours,

Manager and Chief Engineer FOR CLIFFORD S. JAMILE

July 2, 2001

Mr. Clifford S. Jamile, Manager and Chief Engineer GROUP 70 TVACETAVEDTA

Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation Board of Water Supply City and County of Honolulu 630 South Beretania Street Honolulu, Hawaii 96813 Senain G.V. Hang, AIA Sent B. Sanun, MA, SMD FLINENS OAL, AIA, AIGP

Boy H. Nibei, MA, CM Boods Hall, MA

Janus I Nebimeto MA Rajab E Postmore, MCP Sepison II Noon, MA Londo I, Chang, MA

Thank you for your letter received on April 10, 2001, regarding the Lani Properties. • Halawa Sile. Our responses to your comments are provided below. Dear Mr. Jamile:

Existing water system: We appreciate the comment that the system is currently adequate to accommodate our proposal.

Sewer Connections: We are aware of the lack of service connections to the site. We will install the necessary connections after permits and approvals are received. Great the ACP feller If Decises, ACP Paul P Churay, MA Dean H Asamura, RA Swena I Sciel, RA

Three-inch or larger meter. If a three three-inch or larger meter will be installed, construction drawings showing the installation of the water meter will be submitted for your review and approval. Roy A Trounce, MA, CN Frank II, McCare, RA Christine M. Rosendo, AICP Stront M. Jon., MA

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Cross-Connection Control Requirements: it has been noted that the project is subject to Board of Water Supply cross-connection control requirements prior to the issuance of the building permit application. These controls will be installed.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process. Please call me at \$23-5866 if there are additional comments or questions.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

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CITY AND COUNTY OF HONOLULU

3375 KOJAMKA STREET, SUITE H425 » HOMOLULU, HANAH 96819-1869 TELEPHOME, (808) 831-7761 » FAX (808) 831-7750 » INTERNET www.calmondalb.wt

> EREMY HAMRIS MATCH



ATTILLO X LECHARDI FIRE CHILF JOHN CLARK GENUTY FIRE CHILF

Mr. George Atta, AICP Page 2 April 6, 2001 Should you have any questions, please call Battalion Chief Kenneth Silva of our Fire Prevention Bureau at 831-7778.

Sincerely,

Uttle K. Kohred ATTILIO K. LEONARDI Fire Chief

April 6, 2001

Mr. George Atta, AICP Chief Community Planner Group 70 International, Inc. 925 Bethel Street, Fifth Floor Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Lani Properties-Halawa Site Pre-Consultation for Environmental Assessment We received your letter dated March 23, 2001, regarding the Pre-Consultation Environmental Assessment for the Lani Properties, Halawa Site.

We have no objections to the project provided the following conditions are complied with:

- Provide a private water system where all appurenances, 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.
- Submit civil drawings to the Honolulu Fire Department for review and approval.

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July 2, 2001

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GROUP 70

Frances volds, AIA, AICP Norman GY, Hong, AIA Sheryl B, Scanan, AIA, AND Roy H. Milver, AIA, CM. Janes, J. Nishimoto, AIA. Ralph E. Pomoore, ARP Sephen H. Yoon, AIA. INTERNATIONAL Hardii Hida, AlA

Rin A Tonnace, AIA, CM Frank B. McCue, RA Christing M. Ronoldi, AICP Solliet M. Jow, AIA Jelles H. Overson, MCP Dear H. Schmitt, RA. Normaj J. Sciet. RA. George J. Wa. AlCP. Paul P. Clynthey, MA Linch L. Chung. AtA Kathera V Van

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

Subject: Lani Properties-Halawa Site Draft Environmental Assessment Pre-Consultation

Dear Mr. Leonardi:

Thank you for your letter dated April 6, 2001, regarding the Lani Properties-Halawa Site. Our responses to your comments are provided below.

Private Water System: The water system design will ensure that appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

Fire Department Access: The proposed improvements will conform to Fire Department guidelines regarding access roads.

Approval of Civil Drawings: Civil drawings will be submitted to the Honolulu Fire Department for review and approval during the design review phase.

Your comment letter and this response will be included in the Draft Environmental Assessment. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Lay Cat GEORGE ATTA, AICP Chief Community Planner Graup Didictional fig. • Andirecture (Planing) Incres Design • Incresimental Service • Bushing Digitalists • Assets Managament of Basis Incressive (Proposed Paris) in the Second mid-graph-basis of the Second mid-graph-basis of the Second Managament of Control of the Second Managament of the Sec

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET HONOLULU, HAWAII 98813 - AREA CODE (808) 829-3111 http://www.honolulupd.org

www.co.honolulu.hl.us

OUR REFERENCE CS-LS



LEE D. DONOHUE CHIEF

MICHAEL CANVALHO ROSEAT AU DEPUTY CHIEFS

April 4, 2001

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GROUP 70

Trans Note My, MCP Namun C V. Hing, Al.V.

Dear Mr. Atta:

Honolulu, Hawaii 96813

Group 70 International, Inc. 925 Bethel Street, 5th Floor Chief Community Planner

Mr. George Atta, AICP

Thank you for the opportunity to review and respond to the pre-consultation for the Environmental Assessment for Lani Properties in the Halawa area.

facility at the proposed site. However, we believe that there will be an increase in calls for service because of the nature of the proposal, as well as problems caused by the Increased volume of vehicular traffic in the area. Therefore, we anticipate that this The Honolulu Police Department does not object to the development of a commercial proposal will have a negative impact on the facilities and services of this department.

If there are any questions, please call Carol Sodetani of the Support Services Bureau at 529-3658,

Sincerely,

LEE D. DONOHUE Chief of Police

EUGENE UEMURA, Assistant Chief By Afference Support Services Bureau



July 2, 2001

Mr. Lee D. Donohue, Chief of Police GROUP 70

City and County of Honolulu 801 South Beretania Street Honolulu, Hawaii 96813 Police Department INTERNATIONAL

Draft Environmental Assessment Pre-Consultation Subject: Lani Properties-Halawa Site Asryl B. Seanen, Mrs. AMD

Dear Mr. Donohue:

Rulph F. Protocore, MCP

Acpbert H. Yorn, AIA

Inch L Clung, MA Paul P. Chorney, ALV

Direct Adamsto, MA

Roy TI Next, MA, CM

Huschi Hala, MA

Thank you for your letter dated April 4, 2001, regarding the Lani Properties-Halawa Site. • Our responses to your comments are as follows:

increase in calls for service and as a result, will have a negative impact on the facilities and services of the Police Department. The Draft Environmental Assessment proposes to provide space for a police workstation in order to help mitigate this concern. Additionally, the added area and street lighting is expected to improve the current situation. The site location is currently dark and attracts undesirable activities. We feel We acknowledge your statement that the proposed development will generate an lighting and a physical presence will improve the current conditions. Furthermore, anticipated traffic problems will be mitigated by improvements to the roadway geometrics.

Your comment letter and this response will be included in the Draft Envirorunental Assessment. We appreciate your input for the environmental review process. Please call me at \$23-5866 if you have further comments or questions.

Chinaine M Resently, Mr.P.

South M. A.A. MA.

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Sincerely,

GROUP 70 INTERNATIONAL, INC.

Mery Pate GEORGE ATTA, AICP Chief Community Planner Greep Petromanent Inc. - An Favinic - Plumay - Increa Design - Innomanial service - Bodding Degreens - Vests Minaganen 92 Balat Sant Bibliste - Hoodida Hasarised College Service (Medicine Design) - France Google Balating on a google begand

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Appendix B

Draft Environmental Assessment Comments and Responses



U.S. ARUY ENGINEER DISTRICT, HOHOLULU FT. SHAFTER, HAWAII \$6858-5440 DEPARTMENT OF THE ARMY

August 27, 2001

Mannage M

GNOUR AD

Civil Works Technical Branch

Mr. George Atta Group 70 International 925 Bethel Street, 5th Floor Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (DEA) for the Lani Properties Aloha Market, Halawa, Oahu (TMK 9-9-3: 68). The following authorities to provide flood hazard information and to issue comments are provided in accordance with Corps of Engineers Department of the Army (DA) permits.

- a. Based on the information provided, a DA permit will not be required for the project at this time.
- b. The flood hazard information provided on page 7-4 of the DEA is correct.

A copy of this letter has also been furnished to Mr. Robert Reed of City and County of Honolulu, Department of Planning and Permitting, 650 South King Street, Honolulu, Hawaii 96853. Should you require additional information, please contact Ms. Jessie Dobinchick of my staff at (808) 438-8876.

Sincerely,

Bane Comes James Pennaz, P.E. Chief, Civil Works Technical Branch



September 18, 2001

U.S. Army Engineer District, Honolulu Civil Works Technical Branch lames Pennaz, P.E., Chief Department of the Army Fort Shafter, HI 96858 Stery B Scansy Att, ASD Arch D. 424, ACP Young GY Harg. ALA bres Pahmoto, Ala No. H. Piles A.A. CS

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Draft Environmental Assessment Subject: Lani Properties-Halawa Site

RECAL FORMOR ACP Stonen Hinn AM

INCLUDIA ALA

Dear Mr. Pennaz:

George I Aria AKP

Paul Diome, Ala Vendy ine Cosk, Als, CDT Prep I Cuccia

Thank you for your letter dated August 27, 2001 regarding the Lani Properties-Halawa Site. Our responses to your comments are provided below. Department of Army (DA) permit: It has been noted that a DA permit will not be required for the project at this time.

Boy A troupe, AM CSI Shell a low A.A.

Jeresy C. Hou, AM.

SeconHam

Oures Fransko, AS

Flood hazard information: We appreciate your comment that the flood hazard information in the draft environmental assessment is correct.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

Sincerely,

System Carg Walents, AA

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GROUP 70 INTERNATIONAL, INC.

BREC Chief Community Planner GEORGE ATTA, AICP Drong

BOARD OF WATER SUPPLY

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

September 6, 2001

EDDIE FLORES, JR., Charman CHARLES A. STEO, Wor-Charma JAN BLY: AMI HERBERT S.K. KADPUA, SR. BARBARA KIM STANTON ERELY HARRIS, Mayor

:

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

GROUP 70 ALTERNATION

CLEFORD S. JAMILE Manager and Chief Engineer

Attention: Mr. George Atta

Gentlemen:

Subject:

DEGEINED SEP 7: 20:1

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

GROUP 70

for the Development Plan Land Use Amendment and Zone Change for the Your Transmittal of July 27, 2001 of the Draft Environmental Assessment

Lani Properties Aloha Market, Halawa, Qahu, TMK: 9-9-03; 68

Thank you for the opportunity to review and comment on the Draft Environmental Assessment (EA) for the commercial facility. We have no objections to the proposed project. Our previous comments of April 6, 2001 during the Draft EA pre-consultation phase are still applicable.

If you have any questions, please contact Scot Muraoka at 527-5221

Very truly yours,

fir CLIFFORD S. JAMILE Manager and Chief Engineer

September 18, 2001

Clifford S. Jamile, Manager and Chief Engineer City and County of Honolulu 630 South Berelania Street Board of Water Supply

Senia Seman AA, ASD

Ath D. AA ACI ternan GY Hong AM Honolulu, Hawaii 96843

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Section Year AM

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Draft Environmental Assessment Subject: Lani Properties-Halawa Site

Dear Mr. Jamile:

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Full Crome, Ala Ambrica Cost, Art. Col Pilos Succes

Thank you for your letter dated September 6, 2001, regarding the Lani Propertiesproject and that your comments during the Draft Environmental Assessment pre-Halawa Site. We acknowledge that you have no objections to the proposed consultation phase are still applicable.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

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Sincerely,

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GROUP 70 INTERNATIONAL, INC.

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Chief Community Planner GEORGE ATTA, AICP

> Department of Planning and Permitting ပ္ပ

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NATINE H. KOMBA. COMPTROLLER

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DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES PO FOR IN HONOLUCIA MANAGEN

STATE OF HAWAII

AUG 9 - 2001

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GROUP 70

Dear Mr. Atta:

Honolulu, Hawaii 96813-4307

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

Mr. George Atta

Lani Properties - Halawa Site Subject:

Draft Environmental Assessment (DEA)

Thank you for the opportunity to review and comment on the subject project's DEA. The proposed development in Halawa does not directly impact any of our facilities, therefore, we have no comments. If there are any questions regarding the above, please call Mr. Bruce Bennett of the Planning Branch at 586-0491.

Sincerely,

GORDON MATSUOKA Public Works Administrator

Department of Planning and Permitting



September 18, 2001

C. PANTESM

Gordon Matsuoka, Public Works Administrator Fores Ods Ann D. All AG Perrandividua 🔜

Department of Accounting and General Services Honolulu, Hawaii 96810 State of Hawaii P.O. Box 119 Sterk? Seman Ath, ASD bres Norman AA KYH NYA AA CS Hashing As

Draft Environmental Assessment Subject: Lani Properties-Halawa Site

Achi Parrone AC

Szprent Yun, J.H.

Instit July Ast

Dear Mr. Matsuoka:

George I Act, ACP Fau P Cloney, AA

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Thank you for your letter dated August 8, 2001, regarding the Lani Properties-Halawa Site. We acknowledge your statement that the proposed development does not directly impact your facilities and you have no comments.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

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Sincerely,

Creme M. Rodols, ACF C'ry H Oerton At P

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GROUP 70 INTERNATIONAL, INC. Suran Carganyang apa

Youy atra GEORGE ATTA, AICP Chief Community Planner God 10 Hamada, ht. - And kettar - Verrg - htma Dogsi-Badag Dig ooks - Astek Andgemet - Unremeral Sevice 925 date Stef, Solica - Harold How (SSB143) - Rt (SDB 523-SSB - Ha (SDB 533-4444) gas Dateon - red SynaDation



BRUCE & ANDERSON, PLO, M.P.K. DRECTOR OF HEALTH

STATE OF HAWAII

PATER MINES

HICE S OCH HICH D. AM, AKP War GY Ibyg A.A

SEP 5 2001

GROUP 70

DEPARTMENT OF HEALTH
P.O. BOX 3378
HOMOLULU, HWWNI 96801

Entoly please who to Fig. 01-094/epo

August 30, 2001

Honolulu, Hawaii 96813-4307 925 Bethel Street, Fifth Floor Mr. George Atta, AICP Group 70 International

Dear Mr. Atta:

Lani Properties, Aloha Market Subject:

TMK: 9-9-03:68

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

Cate Y Establic, AA

PARINTAL STATE ryel Navmets STONA NEW

HIYS BALCA

Shert M. Jow Aga Kresy C. Hay A.s.

Sy A hoye, 444 CG

Wastewater Branch

objections to the proposed project as long as domestic wastewater generated is handled There is a county sewer service system within the vicinity. Therefore, we have no through connection to the county system. 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.

Should you have any questions, please contact the Planning/Design Section of the Wastewater Branch at 586-4294.

Sincerely,

SARY GILL

Environmental Health Administration Deputy Director



September 18, 2001

Environmental Health Administration Gary Gill, Deputy Director Department of Health Derit Servan AM, ASD

State of Hawaii P.O. Box 3378

brasilikanok, Au

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SCHOOL ROLAN

FIELD AND A.A.

Subject: Lani Properties-Halawa Site Honolulu, Hawaii 96801

Draft Environmental Assessment

Sengel Ara Ace PAR GOVERAM

Dear Mr. Gill:

Mency let (Sol, A.A. CO)

ton) I cita:

SuconHain

wastewater. It is understood that the Wastewater Branch has the right to review Thank you for your letter dated August 30, 2001, regarding the Lani Propertiesprovided the project connects to the county sewer service system for domestic Halawa Site. We acknowledge your comments that you have no objections any detailed wastewater plans.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

Sincerely,

Property 40 On the W. Rusto & ACP Swar Cing Villers, ALA

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GROUP 70 INTERNATIONAL, INC.

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Chief Community Planner GEORGE ATTA, AICP

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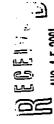
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CITY AND COUNTY OF HONOLULU FIRE DEPARTMENT

3375 KOAPUA STREET, SUITE H425 + MONO,ULU, HUMUA 16819 - 1849 TELPMONE (1801) \$31-7761 + FAX (1801) \$31-7750 + 84TENET www.cz-bendalmas

JERENT HARRIS



AUG 15 2001

August 13, 2001

GROUP 76

JOHN CLASK BENUTS FAST DINES

ATTLOR LECHURAL

STHEAMS

3375 Koapaka Street, Suite H425 Honolulu, Hawaii 96819-1869 Attilio K. Leonardi, Fire Chief City and County of Honolulu Fire Department Seryil Seamen Aid, ASD Farce S Ode, Arth D, AU, ACF Horner GY Hong All Janes 1 Betimoto, A.A. By H West AV, CS HIGH HOS AM

George! And AK?

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Charles Y Earestero, A.A. EDYA FOUNC, AA, CS SDSTAR DOW, ALA

Dean Hourus the Character For B ARCUE

review process.

OFFITTE M LOCOL AUT Actor H Overton ALC Estron A Non

Sharps Ching Williams, AIA Kod fargoran Normall Scott

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

Golds K. Kom

Sincerely,

ATTILIO K. LEONARDI Fire Chief

We received your letter dated July 27, 2001, regarding the Draft Environmental Assessment for the above-mentioned project. We have reviewed the documents and have no objections to the

Draft Environmental Assessment Tax Map Key: 9-9-003: 068

Subject: Lani Properties - Aloha Market

Dear Mr. Atta:

Group 70 International, Inc. 925 Bethel Street, Fifth Floor Honolulu, Hawaii 96813-4307

Mr. George Atta, AICP

GROUP 70 INTERNATIONAL, INC.

GROUP 70

September 18, 2001

DACHE POTTOR ALCH Septemit Not, AM Incus C Miz Als

Subject: Lani Properties-Halawa Site Draft Environmental Assessment

Mercy lee Coot, AA, COT

We received your letter dated August 13, 2001, regarding the Lani Properties-Halawa site. We acknowledge your statement of no objections to the project.

Dear Mr. Leonardi:

Par Pillomer ASA

Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your input for the environmental

Artery C Hay, AM

Sincerely,

GEORGE ATTA, AICP Chief Community Planner Day act

AKL/SD:jo

cc: Robert Reed, Department of Planning and Permitting

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BEKLUMIN 1. CAYETANO CONSHOR



PUATOR L MITARIERO
EXECUTIVE DIRECTOR

NOBERT 1 HALL DECUME ASSERVE

01:PEO/1992 DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT AND TOURISM HOUSING AND COMMUNITY DEVELOPMENT CORPORATION OF HAWAII

S

CEP 7

677 QUEEN STREET, SUITE 300

Honolulu, Hawaii 96813

GROUP 70

FAX: (808) 587-0600

September 5, 2001

Mr. George Atta, AICP

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

Dear Mr. Atta:

Draft Environmental Assessment for Lani Properties - Aloha Market Re:

The Housing and Community Development Corporation of Hawaii (HCDCH) owns and operates the Purwai Momi public housing project which is located adjacent to the proposed Aloha Market development. We believe the proposed project will have a significant impact on the Purwai Momi residents, as well as HCDCH employees.

also increase vehicular traffic on Kohomua Street and, thereby, impede accessibility to The proposed Aloha Market could provide additional job opportunities for residents of Puuwai Momi, as well as added convenience. However, the proposed project would Puuwai Momi and poses a safety issue for HCDCH employees.

foot. The added traffic will make accessing the Puuwai Momi maintenance compound more difficult and dangerous. Putuwai Momi maintenance compound. Twelve State vehicles are continuously driven in and out of the maintenance compound during working hours to conduct business at Puuwai Momi and other area project sites. In addition to the State vehicles crossing The Aloha Market entrance is located several yards away from the driveway to the Kohomua Street to Puuwai Momi, HCDCH employees also travel by golf cart or on

generated by the Aloha Market will impact the residents' accessibility to the parking lot The parking lot entrance for the 151 households at Purwai Momi is located directly and their units. Moreover, the proposed traffic circle at the north end of Kohomua Street may add to the traffic congestion rather than facilitate the flow of traffic. across from the Aloha Market site. The increase in traffic on Kohomua Street

Mr. George Atta, AICP September 5, 2001

their strong desire to prohibit liquor sales at the Aloha Market site. They felt that easy access to alcoholic beverages would exacerbate the existing drinking and associated customers may take away public parking along Kohomua Street, which is currently At a community meeting held on July 23, 2001, Purwai Momi residents expressed problems on the project premises. Additionally, residents feel that Aloha Market used by guests of Puuwai Momi residents.

Thank you for the opportunity to provide our comments.

Sincerely,

Sharyn L. Mivashifo

Executive Director

Robert Reed, Department of Planning and Permitting Robin Gapol, MU I ن

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September 18, 2001

Housing and Community Development Corporation of Hawaii Department of Business, Economic Development and Tourism Sharyn L. Miyashiro, Executive Director 677 Queen Street, Suite 300 Honolulu, Hawaii 96813 Short B States, Act, ASO Act D, A4, ACT AN EAST FOR A.A. Unit Saron AD lend i synde, AA ESH PER AN CO HESTINGS AN

Draft Environmental Assessment Subject: Lani Properties-Halawa Site States H Year, NA rds (Wg A.A

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Stutter Ching Wilkers, Ask Christine M. Puntole, ACP K*DH Owny AG Lytry A Net Nome J Scott

from Kamehameha Highway.

Thank you for your letter dated September 5, 2001, regarding the Lani Properties-Halawa impacts. The transportation study indicates that the primary impact will be during Highway and the turn onto Kohomua Street will slow traffic considerably before it enters the residential area. Pedestrian safety will be enhanced through the use of elevated crosswalks that make the crossing areas more visible to drivers. The the commute hours in the morning and evening. During regular working hours, Kohomua Street may experience increased traffic volume. The timing of peak elevated crosswalks will also function as speed bumps to slow traffic entering traffic and several project design features will serve to minimize any traffic traffic impact should be minimal. The deceleration lane on Kamehameha Kohomua Street safety concerns: State and other vehicles turning onto Site. Our responses to your comments and concerns are as follows: Dear Ms. Miyashiro: StoonHem

should be increased with the associated road revision that creates an exit from Accessibility to Puuwai Momi: The overall accessibility into Puuwai Momi however, the time saved by using the new exit should exceed the time spent Kamehameha Highway onto Kohomua Street. During peak traffic periods, vehicles may need to pause before entering the Punwai Momi parking lot, traveling along the longer current access from Kalaloa Street.

expressed, the issue is premature. The application is for a convenience store and commercial zoning. Liquor sales, if pursued will be pursued during permits that project's feasibility may be jeopardized if alcoholic beverages cannot be sold at will be needed from the Liquor Commission. At this time it is not clear if the Access to alcoholic beverages: While concerns about liquor sales have been the site. The sales from customers going to Aloha Stadium events may be an important economic component and could be greatly diminished if alcoholic beverages are not available for sale. God 10 Meretae iz + Acyeque - Beref - Rico Deg + 314 y Degests + Aust Vergera - Emorrey Socia 93 Bet Sic Selbo - Hood, Issa R313-37 - It (R5) 53 556 - Is (B6) 519 A34 - wwsgop)Actor - radiosoferior

Public street parking: The proposed project meets the code requirements for the number of parking spaces needed. Customers at the market should not have a need to park on the street and therefore should not impact the public street parking situation.

We appreciate your acknowledgement that the proposed project could provide additional job opportunities for residents of Puuwai Momi and added convenience.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

sincerely,

GROUP 70 INTERNATIONAL, INC.

Day at

Chief Community Planner GEORGE ATTA, AICP

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PHONE (BOS) 594-1288



FAX (BOS) 594-1265

Mariana M

OFFICE OF HAWAKAN AFFAIRS
711 KAPTOLAN BOLA, EVARD, SUITE 500
HOMOLULI, HAWAN 98818

AUG 9 - 2001

August 6, 2001

GRCUP 70

925 Bethel Street - Fifth Floor Chief Community Planner Honolulu, HI 96813-4307 Group 70 International Mr. George Atta

Application for Development Plan Land Use Amendment and Zone Change - Lani Properties - Aloha Market SUBJECT:

Dear Mr. Atta:

Thank you for the opportunity to comment on the above referenced project, which is seeking a zone change from R-5 to B-2 in order to develop a three-story commercial building. The Office of Hawaiian Affairs has the following concerns:

please amend the language to reflect that both the State Historic Preservation Division and the Oahu Island Burial Council must be informed if previously unidentified sites are In the Historic/Cultural Assessment and the Archaeological sections (page 7-3) encountered during construction.

If you have any questions, please contact Jerry B. Norris at 594-1847.

Coll C. IGBRan h.

Hawaiian Rights Division Deputy Administrator Colin C. Kippen, Jr.

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

GROUP 70

September 18, 2001

Colin C. Kippen, Jr., Deputy Administrator Office of Hawaiian Affairs Hawaiian Rights Division State of Hawaii Sheryll Seamen ANA ASO rance S Ods. Arch D, Aut, ACP Norman GY Hong AUA Ly H NA AM CS HCS5 Hdt AM

711 Kapiolani Boulevard, Suite 500

Honolulu, Hawaii 96813

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LECTE C. MAY ALA

Draft Environmental Assessment Subject: Lani Properties-Halawa Site

Dear Mr. Kippen:

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George L Arta, A.(P Pad P Chamey, ALA

Halawa Site. We will amend the language in the Historic/Cultural Assessment and the Archaeological sections to note that both the State Historic Preservation Thank you for your letter dated August 6, 2001, regarding the Lani Properties-Division and the Oahu Island Burial Council must be informed if previously unidentified sites are encountered during construction.

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Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

Sincerely,

Sharm Clary Willers, NA

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GROUP 70 INTERNATIONAL, INC.

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Chief Community Planner GEORGE ATTA, AICP

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LANET E. KAMELO
UNHEL NESHOKA

CROUP 70 DATE VIEW VALUE

September 18, 2001

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION Kakuhhwus Badding, Room 565 601 Kamalia Badevard Kapalel, Hewall 96707

Chief Community Planner

George Atta, AICP

August 6, 2001

Group 70 International

925 Bethel Street

Honolulu, Hawaii 96813

Dear Mr. Atta:

AQUATIC RESOURCES
BOATING AND DECEM RESOURCE
MANAGED BIT
COMMISSION ON WATER RESOURCES
MANAGED BIT
COMPENSATION AND MEDICE
FORESTRY AND WAD USE
MATOMIC PARKS
STAFE PARKS

LOG NO: 27968 Y DOC NO: 0108EJ05

Application for Development Plan Land Use Amendment and Zone Chapter 6E-42 Historic Preservation. Review - Draft Environmental Assessment (DEA) Consultation for Lani Properties Halawa Site: Halawa, 'Ewa, O'ahu SUBJECT:

TMK: 9-9-003:068, 069

Honolulu Stadium and the existing housing, making it highly unlikely that historic sites remain, and that we believe that this action will have "no effect" on significant historic plan land use amendment and zone change for the Lani Properties Halawa Site. Our earlier comments are included in Appendix A of the DEA: '... this area has undergone Thank you for the opportunity to review the DEA and Application for Development extensive modification during the re-development of Kamehameha highway, the

Should you have any questions, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027

State Historic Preservation Division Son Hibbard, Administrator

Department of Land and Natural Resources Kahuhihewa Building, Room 555 Historic Preservation Division Don Hibbard, Administrator 601 Kamokila Boulevard Kapolei, Hawaii 96707 State of Hawaii Sheyl B Seaton, A.A., ASD Noman GY Hang AM Percs 5 Cots Arth D, AM, AIC James I Payamoto, AcA Aphil Parroe, AC by Hilling AIA, CS Seprenti Nor, AM HOST HOS AA Inclu C May ALA

Draft Environmental Assessment Subject: Lani Properties-Halawa Site

Dear Mr. Hibbard:

Mendy free Cook, AM, CDT

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Groupe LAEs AUP Paul Charres, AtA

historic sites exist at this location and that your office believes that this action will Thank you for your letter dated August 6, 2001, regarding the Lani Properties-Halawa Site. We acknowledge your statement that it is highly unlikely that have "no-effect" on significant historic sites.

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Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

Sincerely,

Christian Aurola ACP

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GROUP 70 INTERNATIONAL, INC.

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Chief Community Planner GEORGE ATTA, AICP

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POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 98813 - AREA CODE (808) 529-3111

http://www.honolulupd.org

www.co.honolutu.hl.us

SEP A C. I DEPUTY CHIEFS CHIEF CHIEF

GROUP 70

August 27, 2001

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OUR AEFENENCE

JEREMY HARRIS

August 27, 2001 Mr. George Atta Page 2

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 legar Clearer Support Services Bureau Assistant Chief of Police EUGENE UEMURA

Department of Planning and Permitting Mr. Robert Reed ដ

925 Bethel Street, 5th Floor Honolulu, Hawaii 96813-4307 Group 70 International, Inc. Mr. George Atta, AICP

Dear Mr. Atta:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for Lani Properties - Aloha Market. We do not object to the proposal, however, we have the following concerns and comments. In spite of any mitigation measures, complaints relative to construction-related dust, noise, and traffic will generate calls for police service to the area. After the project is occupied and becomes operational, there will be an increase in vehicular traffic to the area. Further, because this is going to be a 24-hour operation, it is presumed that it will attract customers at all hours. Therefore, these factors will more than likely cause an increase in the number of calls for police service to the area.

It is noted that there is provision in the development proposal for a police workstation within the complex. The developer should be advised of the possibility that the Honolulu Police Department may not be in a position to accept nor staff this office if and when it is offered.

Provided that the proposal to elevate the crosswalk is approved by the appropriate agencies, we have no objection to this design

Serving and Protecting with Alaba

F-- 5

September 18, 2001

GROUP 70

IN THE STREET, A

Lee D. Donohue, Chief of Police City and County of Honolulu 801 South Beretania Street Honolulu, HI 96813 Police Department Smill Seasy, AA, A30 Farca S COL Auth C, AA, ACF Homan GY Hong AA Irrest referrola AA Lyph E Portnore, ALP Est Henry MA, CO. HOST HOM AM

Draft Environmental Assessment Subject: Lani Properties-Halawa Site

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Dear Mr. Donohue:

Seage! Ars ACP Pulf Charse, AM

Perty Inc Cool, A.A. CET

Ado Cucca

S.E.Con Halon

Thank you for your letter dated August 27, 2001 regarding the Lani Properties-Halawa Site. We acknowledge that you do not object to the proposal and our responses to your comments and concerns are as follows:

make the area less attractive for potential criminal elements. If the operation becomes all appropriate mitigation measures to minimize possible construction-related dust, noise and traffic. The area is currently dimly lit. We hope the increased lighting will Increase in police service calls: During the building process, the developer will use a 24 hour establishment, we will have two person teams working during evening and early morning shifts to increase safety and deter unwanted activity. We also believe the potential police presence in this facility will deter crime even if the room is only used as a temporary stop.

Highway will provide a clear view of the establishment to deter potential unwanted After the project is operational, the orientation of the project toward Kamehameha activities. Landscaping and lighting will preserve the site lines from the highway, parking lot and adjacent building.

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Charl Cook, AG

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Dear Historia darekii liskardo

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Es A Youse, AM, CS

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Police office space: We understand that the Honolulu Police Department may not be able to accept or staff the second sloor office. The plans will proceed with this space reserved for this potentiality.

We appreciate your comment that you have no objection to the elevated crosswalk design if appropriate agencies approve.

Assessment. We appreciate your input for the environmental review process. Please Your comment letter and this response will be included in the Final Environmental call me at 523-5866 if you have further comments or questions.

Sincerely,

GROUP 70 INTERNATIONAL, INC. Sary

Other

Chief Community Planner GEORGE ATTA, AICP

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GENEVIEVE SAIMONSON DRECTOR

STATEOFHAWAII

OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH RETURN A STRUTT
PROGRAM NAME SELL
TELEPONE RESULTIONS
(ACCOUNT OFFICE O

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GROUP 70

September 6, 2001

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

Dear Mr. Fujiki:

Draft Environmental Assessment for Lani Properties-Aloha Market Project, O'ahu Subject: Thank you for the opportunity to review and comment on the subject project. We have the following comments.

- Please describe past uses of the property. Based on an analysis of previous uses of the site, is there a potential that the site may be contaminated with hazardous materials? If so, please investigate the site for hazardous materials.
- The entire state is classified as a coastal management area. Please discuss how the project meets the objectives and policies of the Coastal Zone Management listed under section 205A-7

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

Sincerely,

(firm Lutar Genevieve Salmonson Director

c: Group 70

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September 18, 2001

Office of Environmental Quality Control 235 South Beretania Street, Suite 702 Genevieve Salmonson, Director Honolulu, Hawaii 96813 State of Hawaii Sery B Scarat, AN, ASD Press Oct. Ach D. Ast. ACI AN BON IS AN Broil Rando AA Byr I POTOR ACT BY HINTE, A.A. CSI -CST-CB --

Draft Environmental Assessment Subject: Lani Properties-Halawa Site

Statement Men AM

Under Wes Alt

Dear Ms. Salmonson:

Very, lee Coot, AM, CIT

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Secondar.

George I Ang AKP Paulit Cromer, AtA

the Lani Properties-Halawa Site we provide the following responses to your comments and With reference to your letter dated September 6, 2001 to Mr. Randall K. Fujiki, regarding

Environmental Assessment in section 7.7.3, Toxic Waste, mercury contamination occurred nearby in March of this year. The contamination was contained on two other sites that have been cleaned-up. Based on the past uses of the property the Highway was built, and the project site property remained as a highway remnant Assessment, the site is currently being used as a storage area and an egress route Past property uses: Over the past 40 years the original owner was the State of Hawaii who possessed the property as part of a larger parcel containing Halawa St. Paul Evangelical Church purchased the land from the State and planned to connecting Kohomua Street to Kamehameha Highway. As stated in the draft Street that connects to Kamehameha Highway was built without the owner's Kamehameha Highway, the decrepit housing was taken down, Kamehameha ouild a church on the property. During this tenure an extension of Kohomua permission. The church was never built on the property, and in 1992 R C J Housing and a road. When the road alongside the housing was to become Corporation purchased the property. As noted in the draft Environmental determination is that the site does not have potential hazardous waste contamination.

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Christie W. Buchola, AUP.

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and visitors. Improved landscaping will beautify the landscape and improve the However, the project site is not located within a Special Management Area. The Coastal Zone Management (CZM) objectives and policies: As noted in your aesthetic quality of the area. In addition, the project will continue to protect the observation deck will open up opportunities to view the harbor to area residents letter, all property in the state is classified as a coastal management area. project is consistent with CZM objectives and policies. The third floor

practices will be used. The completed project will include landscaping along the Pearl Harbor property line where runoff drains to an open swale. The vegetation will serve to filter the runoff. Given the low rainfall and the relatively small project sile, runoff is expected to be a small amount. The final environmental assessment will be amended with this information. Your comment letter and this response will be included in the Final Environmental Assessment. We appreciate your input for the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

Duy att GEORGE ATTA, AICP

Chief Community Planner

coastal ecosystem from runoff. During the construction phase best management

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CITY AND COUNTY OF HONOLULU HONOLULU, HAWAII 96813-3065 / TELEPHONE 547-7000 CITY COUNCIL

GARY H. OKINO
COUNCILICDEER, DSTRICT VIII
COUNCILICAGE PUBLIC WORLS COMMITTE
TELEHONE ROSS STATOS
FACEDEEL (808) 542-7008

SEP 10 3. I

September 7, 2001

GROUP 70

925 Bethel Street, 5" Floor Honolulu, Hawaii 96813-4307 George Atta

Group 70 International, Inc.

Draft Environmental Assessment - Comments Lani Properties - Aloha Market 8e:

This is to request that the following issues, questions or concems relating to the development of the proposed Aloha Market be addressed in the Environmental Assessment.

- Does the Conceptual Roadway Circulation Plan proposed for this development conform with standard City & State roadway design guidelines? Can more detailed plans of this Roadway Circulation Plan be provided? Have both DTS and DOT approved these plans?
- 2. It is my understanding that the U.S. Navy at one time was considering a "fly-over" ramp to facilitate north-bound Kamehameha Highway vehicular access to the Ford Island Bridge roadway. This "fly-over" may directly impact the subject property. Has the U.S. Navy reviewed these plans for potential conflicts with this proposed development?
- Is there adequate space for the proposed 24 parking stalls? What will be the size of these stalls?
- 4. The City is currently considering the development of a Bus Rapid Transit (BRT) transit center and park-and-ride on the Aloha Stadium overflow parking lot area along Kamehameha Highway. Does the proposed project affect plans for the BRT facility?
- 5. What is the proposed use of the smaller "developable area" at the "mauka" end of the property adjacent to the Aloha Stadium parking lot?

Thank you for this opportunity to comment and provide input.

Countifmember, District VIII

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September 18, 2001

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Gary H. Okino, Councilmember District VIII Subject: Lani Properties-Halawa Site Honolulu, Hawaii 96813-3065 City and County of Honolulu City Council

Thank you for your letter dated September 7, 2001, regarding the Lani Properties-Halawa Draft Environmental Assessment Dear Mr. Okino:

Department of Transportation. They are aware of the roadway circulation plans, and the plans conform to standard City and State roadway design guidelines. If Conceptual Roadway Circulation Plan: Discussions were held with the City the project is approved, the plans will then be finalized. For more details of the and County of Honolulu Department of Transportation Services and the State proposed roadway circulation plan, please see Appendix B for the complete Site. Our responses to your comments and concerns are as follows: Fraffic Impact Analysis Report.

and Kamehameha Highway intersection, and would not conflict with the proposed Programmatic EIS, the highest intensity alternative would need an under pass for Possible US Navy "Fly-over" ramp: The Navy is still looking at various Ford Island development scenarios. According to the Draft Ford Island Development Boulevard. The additional widening would begin north of the Kohomua Street north bound Kamehameha Highway traffic turning left on to Ford Island project.

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requirements. Each parking stall will be at least 8 feet by 18 feet as per the Land preliminary square footage and projected uses, this should meet on site parking Parking spaces: There is adequate space for the 24 parking stalls. Based on Use Ordinance (LUO)

included in the area for the proposed BRT center/park-and-ride. The area for the Proposed Bus Rapid Transit (BRT) center/park-and-ride: The proposed BRT project is separated from other land parcels on both sides by Salt Lake Boulevard. Market project is adjacent to Stadium Authority land, however it is not land project does not affect any plans for the BRT facility. The proposed Aloha

Future use of remnant property area: The remnant property area on the Aloha Stadium end of the project has no planned use at the present time.

Environmental Assessment. We appreciate your input for the environmental Your comment letter and this response will be included in the Final review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

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Chief Community Planner GEORGE ATTA, AICP

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Appendix C

Aloha Market Traffic Impact Analysis Report, Austin, Tsutsumi, and Associates, Inc. (July 2001)

ALOHA MARKET TRAFFIC IMPACT ANALYSIS REPORT

Halawa, Oahu, Hawaii

July 2001

Prepared for:

Lani Properties



Austin, Tsutsumi & Associates, Inc.

Civil Engineers • Surveyors 501 Surmer Street, Suite 521 Honolulu, Hawaii 96817-5031 Telephone: (808) 533-3646 Facsimile: (808) 526-1267

Honolulu • Wailuku, Hawaii

ALOHA MARKET TRAFFIC IMPACT ANALYSIS REPORT

Halawa, Oahu, Hawaii

Prepared for

Lani Properties

Prepared by

Austin, Tsutsumi & Associates, Inc.
Civil Engineers • Surveyors
Honolulu • Wailuku, Hawaii

July 2001

AUSTIN, TSLITBUMI & ASSOCIATES, INC. CIVIL ENGINEERS - SURVEYORS

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TABLE OF CONTENTS

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CONTINUING THE ENGINEERING PRACTICE FOUNDED BY H. A. R. AUSTIN IN 1894

TED S. KAWAHIGASHI, P.E., FACEC KENNETH K. KUROKAWA, P.E. DONOHUE M. FUJII, P.E. STANLEY T. WATANABE TERRANCE S. ARASHIRO, P.E. MERNA S. KIBE

TRAFFIC IMPACT ANALYSIS REPORT

ALOHA MARKET

INTRODUCTION 1.

Lani Properties proposes to develop Aloha Market which will include a convenience store, a deli/take out counter, retail shop (or museum) and a police workstation. In addition, a right turn access from Kamehameha Highway to Kohomua Street is also proposed as part of the development plan. Presently Kohomua Street has a right turn only access to northbound Kamehameha Highway.

Purpose and Scope A.

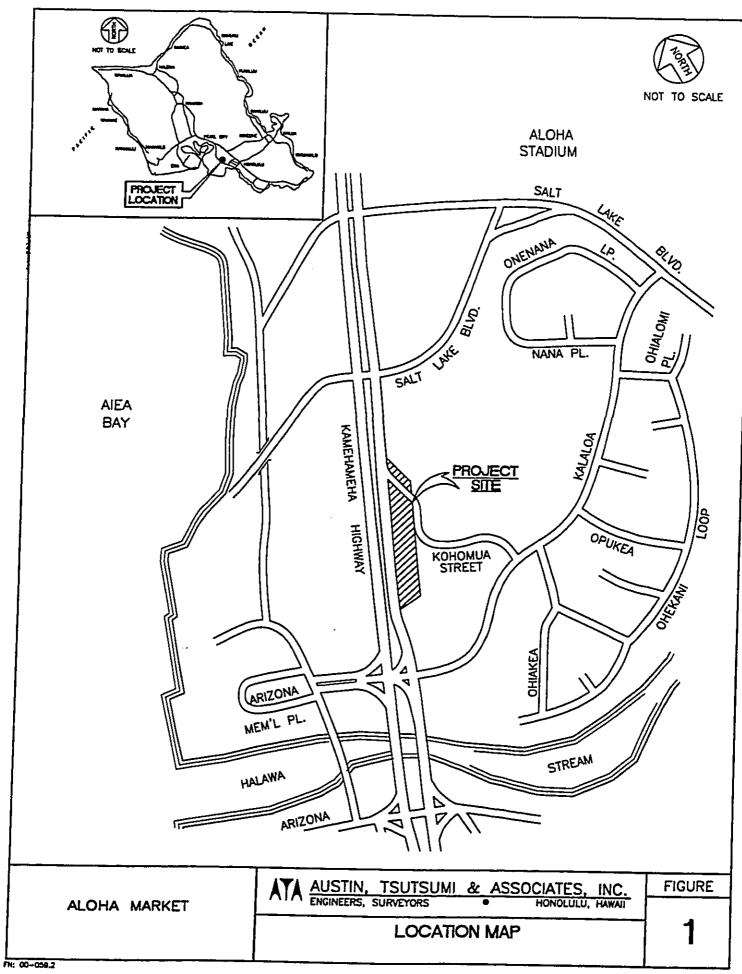
The purpose of this study is to identify and assess the traffic impacts resulting from the proposed Aloha Market.

Project Location В.

The project site is located in the Halawa area on the island of Oahu on TMK: 9-9-03: parcels 68 and 70. The project site is bounded by Kamehameha Highway and Kohomua Street as shown in Figure 1.

Project Description C.

The Aloha Market will be a three-story building and will consist of the following active land uses listed in Table 1. Passive land uses such as storage, restrooms, observation decks, and seating areas are not listed, as they do not contribute to generation of vehicular traffic.



-2-

Table 1
ALOHA MARKET

Land Use	Gross Floor Area (square feet)
Convenience Store	3,000
Deli/Take Out counter	636
Museum or Retail Shop	1,120
Police Workstation	240

II. EXISTING CONDITIONS

A. Roadways

Kamehameha Highway is the major north-south arterial in the vicinity of the project. Kamehameha Highway links the airport/Mapunapuna area to Pearl City. In the vicinity of the project site, Kamehameha Highway is a two-way divided roadway with two lanes in the northbound direction and three lanes in the southbound direction. The posted speed limit on Kamehameha Highway is 35 miles per hour (mph).

Kalaloa Street is an east-west collector road that connects Kamehameha Highway to Salt Lake Boulevard. Kalaloa Street begins directly across of Arizona Memorial Place and ends at Salt Lake Boulevard. Kalaloa Street is a two-way, two-lane road with a posted speed limit of 25 mph.

Kohomua Street is residential two-way, two-lane road that connects Kalaloa Street to Kamehameha Highway. Presently, Kohomua Street has a right turn only access to northbound Kamehameha Highway.

B. Intersections

The geometric layouts of the key intersections included in the study are described below.

Kamehameha Highway/Kalaloa Street

Kamehameha Highway intersects Kalaloa Street forming a signalized cross-intersection with restricted movements. At this intersection, turn movements to and from Kalaloa Street are restricted to

a right-turn in and right-turn out operation, which operate independently from the traffic signal system. The northbound Kamehameha Highway right-turn movement is controlled by yield sign has a right-turn deceleration lane on Kamehameha Highway. The westbound Kohomua Street right-turn movement is also controlled by a yield sign and has an acceleration lane on Kamehameha Highway.

Kalaloa Street/Kohomua Street

Kalaloa Street intersects Kohomua Street forming an unsignalized "Tee"-intersection with Kohomua Street forming the stem of the "Tee." Traffic on Kohomua Street is controlled by a stop sign. All approaches at this intersection consist of single shared traffic lanes.

Kamehameha Highway/Kohomua Street

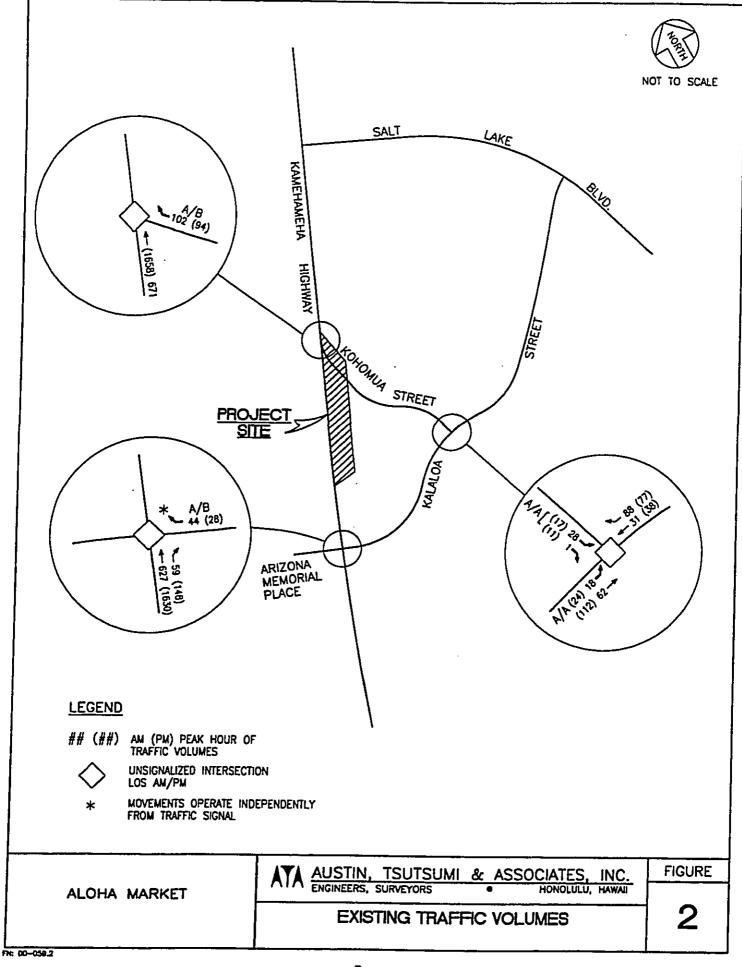
Presently, Kohomua Street connects to Kamehameha Highway allowing right-turn movements to northbound Kamehameha Highway. The Kohomua Street approach is controlled by a yield sign and has a right-turn acceleration lane on Kamehameha Highway.

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C. Traffic Conditions

Peak hour traffic volumes at intersections in the vicinity of the project were documented through manual traffic counts and analyzed using procedures outlined in the 1994 <u>Highway Capacity Manual</u>. Level of Service (LOS) is a qualitative measure used to describe the conditions of traffic flow ranging from free-flow conditions, LOS A, to congested conditions, LOS F. The descriptions of LOS for signalized and unsignalized intersections are provided in Appendix A.

Manual traffic counts were taken during the weekday morning and afternoon peak periods at the Kamehameha Highway/Kalaloa Street intersection and the Kalaloa Street/Kohomua Street intersection. A machine counter was used to record the traffic volumes from Kohomua Street to northbound Kamehameha Highway on May 15. According to the traffic count data, the morning (AM) peak hour of traffic on northbound Kamehameha Highway occurs from 7:15 AM to 8:15 AM and the afternoon (PM) peak hour of traffic occurs from 3:30 PM to 4:30 PM. Figure 2 displays the existing weekday peak hour traffic volumes. The results of the intersection analyses are described in detail below.



Kamehameha Highway/Kalaloa Street

The westbound Kalaloa Street right-turn movement was analyzed as an unsignalized movement as it is independent from the traffic signal operation. The westbound Kalaloa Street right-turn movement operates at LOS A during the AM peak hour of traffic and at LOS B during the PM peak hour of traffic.

Kalaloa Street/Kohomua Street

The Kalaloa Street/Kohomua Street unsignalized intersection operates at LOS A during the AM and PM peak hours of traffic. All critical movements at this intersection also operate at LOS A during the AM and PM peak hours of traffic.

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Kamehameha Highway/Kohomua Street

Presently, Kohomua Street connects to Kamehameha Highway allowing right-turn movements to northbound Kamehameha Highway. Analysis of this movement as an unsignalized intersection revealed that it operates at LOS A during the AM peak hour of traffic and at LOS B during the PM peak hour of traffic

III. YEAR 2003 WITHOUT PROJECT

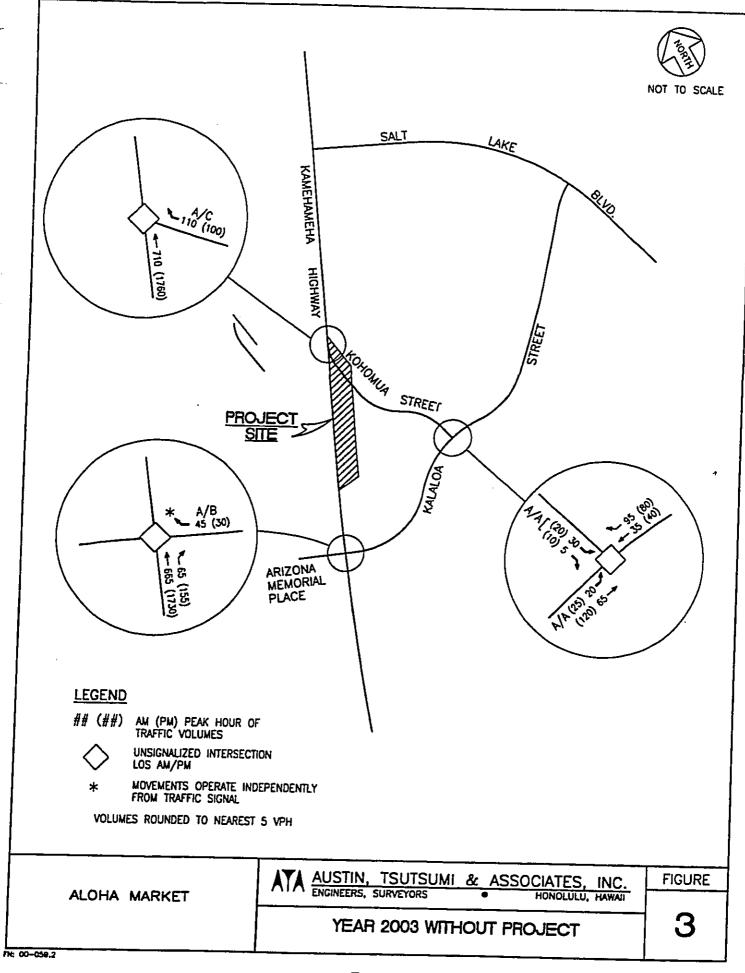
The Aloha Market is scheduled for completion in year 2003. Traffic volumes on Kamehameha Highway and Kalaioa Street were increased by three percent per year to represent Year 2003 traffic conditions without the project based on historic traffic data for Kamehameha Highway. Figure 3 shows the traffic assignment for Year 2003 without project.

Kamehameha Highway/Kalaloa Street

The westbound Kalaloa Street right-turn will continue to operate at LOS A during the AM peak hour of traffic and at LOS B during the PM peak hour of traffic.

Kalaloa Street/Kohomua Street

All critical movements at the Kalaloa Street/Kohomua Street unsignalized intersection will continue to operate at LOS A during the AM and PM peak hours of traffic.



f. *

Kamehameha Highway/Kohomua Street

This right turn movement will continue to operate at LOS A during the AM peak hour of traffic. As through traffic on Kamehameha Highway increases, this movement will experience LOS C conditions during the PM peak hour of traffic

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SI

IV. YEAR 2003 WITH PROJECT

A. Trip Generation

The trip generation estimate for the proposed Aloha Market was calculated using trip rates published in the Institute of Transportation Engineers publication, *Trip Generation*, 6th Edition. The estimate assumed the possibility of a 24-hour operation of the convenience store. Although a police workstation is included in the plan, it is not anticipated to generate significant traffic during the peak periods of traffic as it is intended for use by police officers in the field to perform "office" duties as needed. The study also assumed that the museum/retail space would be used for retail purposes to generate a "worst-case" scenario. Table 2 shows the trip generation rates used in the study and Table 3 shows the trip generation estimate for the project.

Table 2

ALOHA MARKET

TRIP GENERATION RATES

Land Use (ITE Code)	Independent Variable	Peak l	day AM Hour of affic	Weekday PM Peak Hour of Traffic				
Laire 555 (112 555)		Rate	% Enter	Rate	% Enter			
24-Hr. Convenience Store (851)	1,000 GFA	65.39	51%	34.57	50%			
Deli/Take Out (833)	1,000 GFA	43.87	60%	26.15	51%			
Retail (852)	1,000 GFA	31.02	50%	34.57	49%			

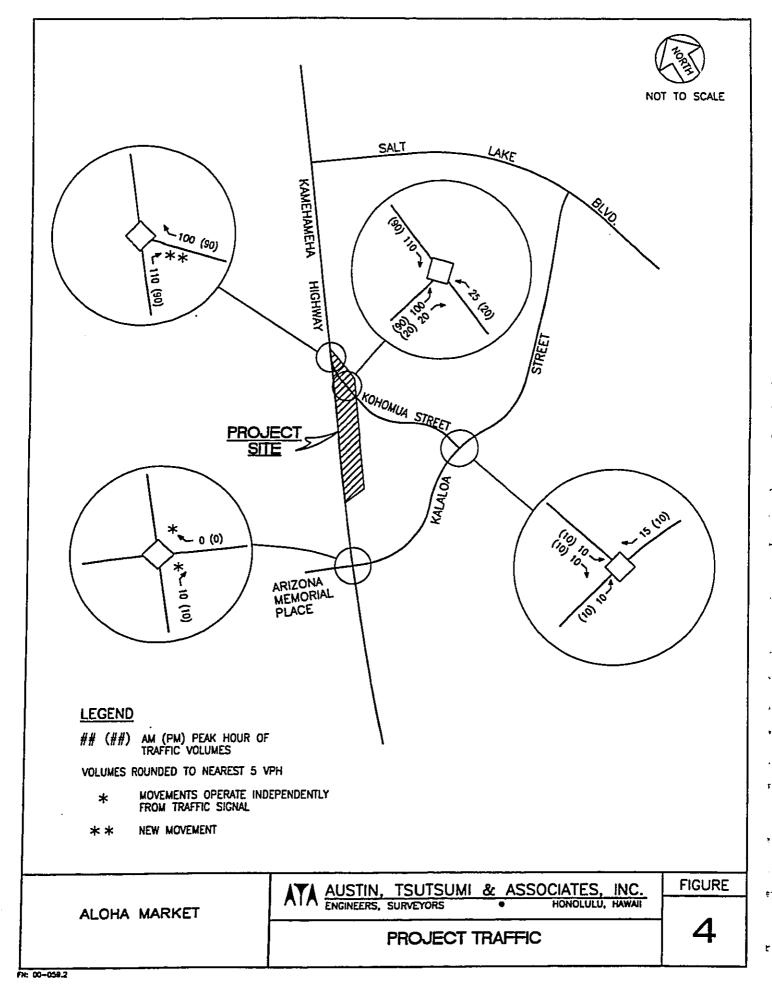
Table 3
ALOHA MARKET
TRIP GENERATION

Land Use (ITE Code)	1,000 Square Feet	Weekd Peak H Tra	our of	Weekday PM Peak Hour of Traffic			
		Enter	Exit	Enter	Exit		
24-Hr. Convenience Store (851)	3.0	100	96	81	80		
Deli/Take Out (833)	0.636	17	11	9	8		
Retail (852)	1.12	18	17	19	20		
TOTAL.	4.576	135	124	109	108		

B. Trip Distribution and Traffic Assignment

The project will construct a right-turn access to Kohomua Street from northbound Kamehameha Highway. Based on the traffic count data, the diversion for non-project traffic is not anticipated to be significant. It was estimated that approximately 50 percent of the existing traffic that enters Kohomua Street from Kamehameha Highway will divert to the new access resulting in a diversion of approximately 10 trips during the AM peak hour of traffic and 12 trips during the PM peak hour of traffic.

The majority of project traffic, however, is anticipated to use the new access to Kohomua Street. Trip distribution factors were derived from the traffic volumes on Kamehameha Highway and Kalaloa Street. The trip distribution factors used in the study are shown in Table 4. The traffic assignment for project traffic is shown in Figure 4.



-10-

Table 4
TRIP DISTRIBUTION FACTORS

Area	Factor
Kamehameha Hwy./ Kalaloa St.	8%
Salt Lake Blvd.	10%
Kamehameha Hwy./ Kohomua St.	82%
Total	100%

V. TRAFFIC ANALYSES WITH PROJECT

Project traffic was added to Year 2003 volumes, resulting in Figure 5, which shows the traffic assignment for Year 2003 with project conditions. The analyses of the unsignalized intersections are summarized below and are compared to Year 2003 conditions without the project in Table 5.

Kamehameha Highway/Kalaloa Street

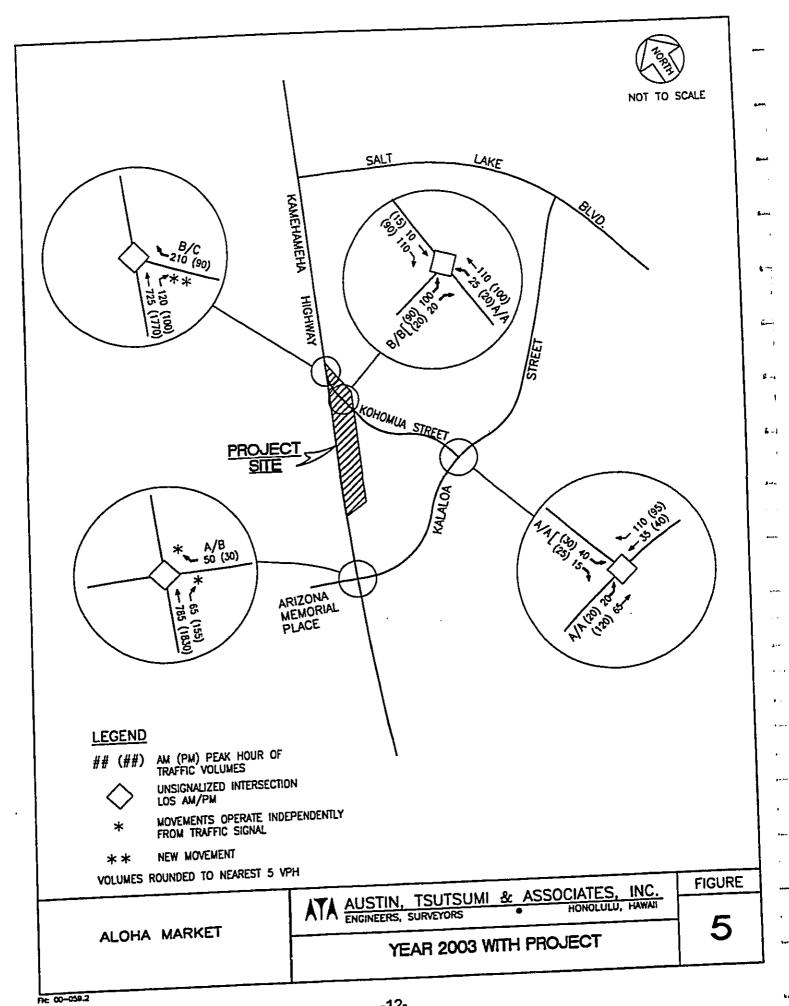
The westbound Kalaloa Street right-turn will continue to operate at LOS A during the AM peak hour of traffic and at LOS B during the PM peak hour of traffic.

Kalaloa Street/Kohomua Street

All critical movements at the Kalaloa Street/Kohomua Street unsignalized intersection will continue to operate at LOS A during the AM and PM peak hours of traffic.

Kamehameha Highway/Kohomua Street

This right-turn movement will experience slightly higher delays and will operate at LOS B during the AM peak hour of traffic and will continue to operate at LOS C during the PM peak hour of traffic.



Kohomua Street/Project Driveway

The intersection of the project driveway and Kohomua Street forms an unsignalized "Tee"-intersection with the driveway approach forming the stem of the "Tee". The northbound Kohomua Street left-turn movement will operate at LOS A during the AM and PM peak hours of traffic. The driveway or stop sign-controlled approach will operate at LOS B during the AM and PM peak hours of traffic.

Table 5
LOS COMPARISON

	1	Without oject	2003 With Project					
Unsignalized Intersection	AM Peak Hour of Traffic	PM Peak Hour of Traffic	AM Peak Hour of Traffic	PM Peak Hour of Traffic				
Kamehameha Hwy./Kaialoa St. WB Kaialoa Right	A	В	Α	В				
Kalaloa St./Kohomua St. EB Kalaloa Left SB Kohomua Shared	A A	A A	4 4	A				
Kamehameha Hwy./Kohomua St. WB Kohomua Right	А	С	В	С				
Kohomua St./Project Driveway NB Kohomua Left EB Driveway Shared	N/A N/A	N/A N/A	A B	A B				

VI. CONCLUSIONS

The following are the conclusions of the traffic report.

- Traffic impacts of project are anticipated to be nominal as all critical movements will operate at LOS C or better.
- The diversion of non-project traffic to the proposed access from northbound Kamehameha Highway to Kohomua Street is not anticipated to be significant based on the traffic count data. Fewer than 15 vehicles

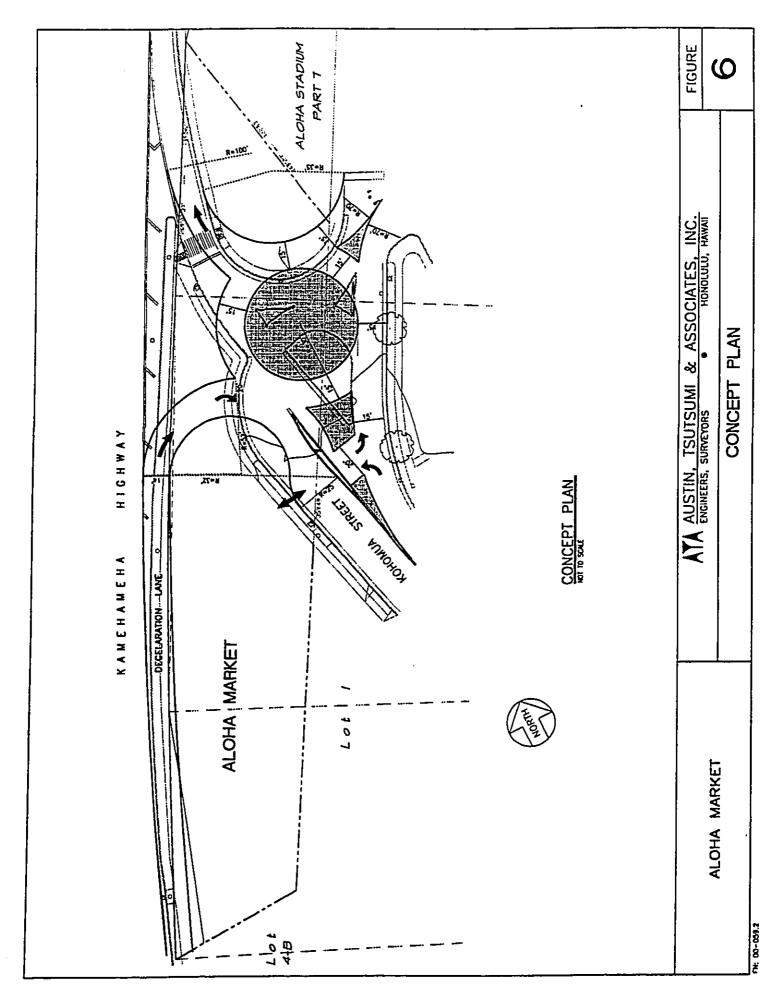
per hour (non-project) are estimated to divert to this new access during the peak hours of traffic.

The trip generation estimate for this project represents a conservative estimate as pass-by traffic was not included as part of the analysis. Passby trips are defined as intermediate stops on the way from an origin to a primary trip destination. These trips are attracted from traffic passing the site on an adjacent street such as Kamehameha Highway or Kalaloa Street. An example would be someone traveling to work or home stops at one of the stores in the Aloha Market and then continues on to their primary trip destination. Limited data presented in <u>Trip Generation - 5th</u> Edition, suggests a pass-by trip rate of up to 30 to 35 percent for similar sized mixed-use developments.

RECOMMENDATIONS VII.

The following are the recommendations of the traffic report.

- Provide a right-turn deceleration lane on northbound Kamehameha Highway for the new access to Kohomua Street. This deceleration lane can be implemented by extending the existing right-turn acceleration lane at the Kamehameha Highway/Kalaloa Street intersection to the Kohomua Street access forming an auxiliary lane between the two intersections. Analysis of the weaving condition on this auxiliary lane indicates that it would operate at LOS C or better.
- Provide a turn-around at the north end of Kohomua Street. A small-radius traffic circle could be considered to facilitate turn movements at the north end of Kohomua Street. A conceptual layout for a traffic circle is shown in Figure 6.



REFERENCES

- 1. Transportation Research Board, Highway Capacity Manual, Special Report 209, 1994.
- 2. Institute of Transportation Engineers, <u>Trip Generation 5th Edition</u>, 1991.
- 3. Institute of Transportation Engineers, <u>Trip Generation 6th Edition</u>, 1997.

APPENDICES

APPENDIX A TRAFFIC COUNT DATA

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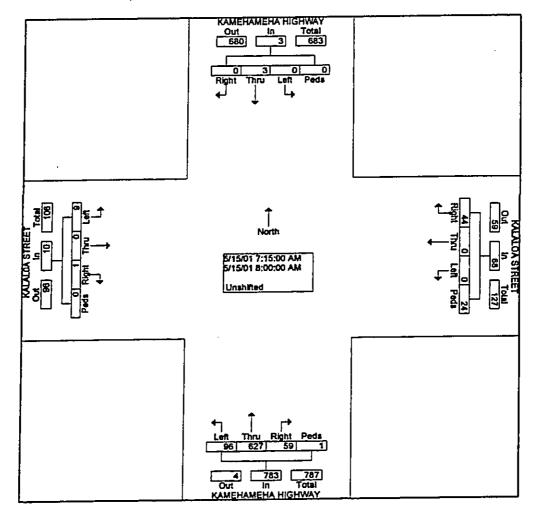
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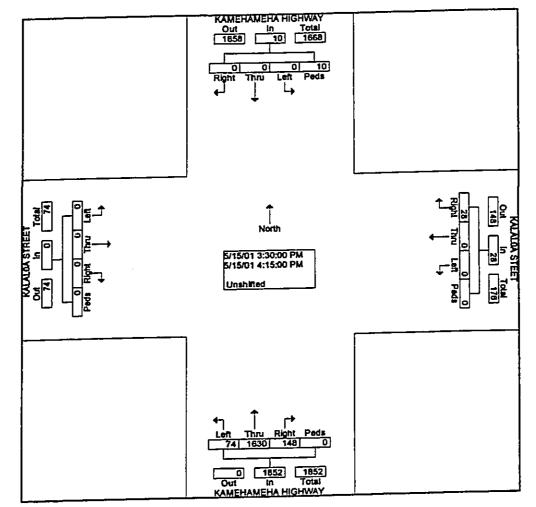
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07:30 AM	O	0	11	0	11	29	,	0	,	29	ō	14	5	0	19	57
07:45 AM	1	0	8	0	9	23	6_			91	0	50	14	0	64	182
Total	1	0	25	1	27	70	21	0	Ç	34	•	-				
				_	- 1		10	٥	0	28	0	12	4	0	16	47
MA 00:80	0	0	3	0	3	18	10	۸	ō	18	0	6	0	0	6	30
08:15 AM	1	0	5	0	6	14	-	0	ŏ	15	O	20	2	0	22	41
MA 05:80	1	0	3	0	- 1	8	,		ň	17	0	13	2_	0_	15	36
08:45 AM	_1_	0	3_	0	4		<u>°</u> _	- 0		78	0	51	8	0	59	154
Total	3	Ö	14	0	17	51	27	U	•	, ,	_					
					- 1		_	^	O	20	0	9	1	0	10	33
09:00 AM	0	0	3	0	3	15	5 53	Ň	ŏ	189	ō	110	23	0	133	369
Grand Total	4	0	42	1	47	136		0.0	-0.0		0.0	62,7	17.3	0.0		1
Approch %	6.5	0.0	89.4	2.1	,	72.0	25.0		0.0	51.2	0.0	29.8	6.2	0.0	36.0	l .
Total %	1.1	0.0	11.4	0.3	12.7	36.9	14.4	0.0	3.5	J						

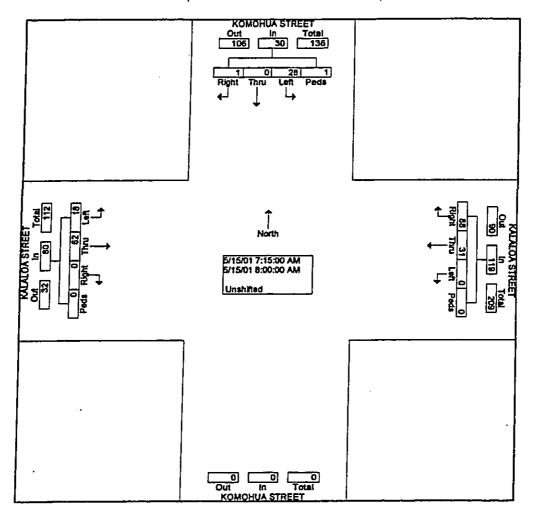
Major: Komohus Street minor: Kalalos Street Date: May 15, 2001 Time: 7:15 AM - 9:15 AM

File Name: KOMOHUA & KALALOA AM Sita Code: 00000000 Start Date: 05/15/2001 Page No: 12

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			ORUA S Couthbou					LOA ST Vestbour					LOA STI astboun			
Start Time	Right	Thru	Left	Peds	App. Total		Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour From 07:	15 AM to 09	- MA 00:	Peak 1 of	1					-							
Intersection	07:15 AM					1					ŀ					
Volume	1	0	28	1	30	88	31	0	0	119	0	62	18	0	80	229
Percent	3.3	0.0	93.3	3,3		73.9	26.1	0.0	0.0		0.0	77.5	22.5	0.0		
07:30 Volume	0	0	11	0	21	29	9	0	0	38	0	23	4	0	27	76
Peak Factor						1					ĺ					0.753
	07:30 AM					07:30 AM					07:30 AM					
Volume	0	0	11	0	11	29	9	0	0	38	0	23	4	0	27	
Peak Factor	•	_			0.682					0.783	•				0.741	



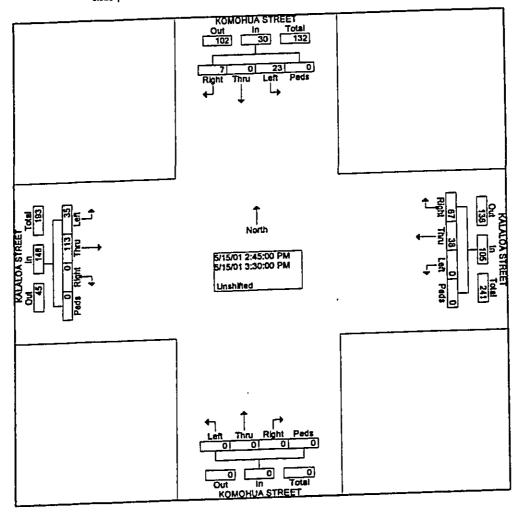
jor:KALALOA 10r: KOMOHU 18: MAY 15, 2 18: 2:30 PM +	JA STRE	ET				_		h: (80	Honol B) 533- Group:	iner Str Iulu, Ha 3646 F s Printe	waii 96 ax: (80	5817 08) 520		•				Site Cod	: 00000 : 05/15	0000	(ATVTOY
			OHUA S outhbo	STREE und				LOA S /estboo					OHUA 3	STREET				LOA S	TREET]
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App.	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	- 1010	
02:30 PM	0	0	5	0	5	31	В	0	0	39	0	0	0	0	0	0	20	5	٥	25	69
02:45 PM						19	11	0	0_	30	0	0	O	0	0	0	36	. 8	0	44	81
Total	3	0	9	0	12	50	19	0	0	69	0	o	0	0	0	0	56	13	0	69	150
03:00 PA	0	0	3	0	3	15	8	o	0	23	0	0	O	0	0	0	29	10	٥	39	65
03:15 PM	2	0	6	0	8	16	9	0	0	25	0	0	0	0	0	0	24	9	ŏ	33	66
03:30 PM	2	0	10	0	12	17	10	0	0	27	0	0	0	0	o l	Ó	24	8	ŏ	32	71
03:45 PM	1	0_	2	0_	3	17	. 8	0	0	25	0	0	0	0	oi	Ó	32	3	ŏ	35	63
Total	5	0	21	0	26	65	35	C	0	100	0	0	0	0	٥	0	109	30	0	139	265
04:00 PM	0	0	1	0	1	13	14	0	0	27	0	Ð	0	0	٥Ι	0	31	6	D	37	65
04:15 PM	0	0	4	0	4	30	6	0	0	36	Ö	ō	ō	ŏ	ŏ	ō	25	7	ő	32	72
rond Total	8	0	35	0	43	158	74	0	0	232	0	0	0	0	0	ō	221	56	ō	277	552
Appreh %	18.6	0.0	81.4	0.0		68.1	31.9	0.0	0.0	1	0.0	0.0	0.0	0.0	- 1	0.0	79.8	20.2	0.0	~′′	222
Total %	1.4	0.0	6.3	0.0	7.8	28.6	13.4	0.0	0.0	42.0	0.0	0.0	0.0	0.0	0.0	0.0	40.0	10.1	0.0	50.2	

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Major:KALALOA STREET Minor: KOMOHUA STREET Date: MAY 15, 2001 Time: 2:30 PM - 4:30 PM

File Name : KOMOHUA & KALALOA PM Sits Code : 00000000 Start Date : 05/15/2001 Page No : 2

		KOMC	HUAS	TREET		<u> </u>	KALA	LOA S	TREET			KOMO N	HUA S	STREE!			KALA	LOA S Eastbou	ind_		Int.	1
		S	outhbo	und	App.			Left	Peds	App.	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Total	
Start Time		Thru		Peds	Total	Right	Thru	LETT	reus	Total	13			<u> </u>	10141		-					land's
Peak Hour From	02:30 P/	V to 04	:15 PM -	Peak 1 of	1	ı					i			_	_	}	113	35	0	148	263	
Titles pootson	02:45 F	,W	23	0	30	67	38	0	0	105	0	0	0	0.0	0	0.0	76.4		0.0	• • •		'
Volume Percent	23,3	0.0	76.7	0.0		63.8	36.2	0.0	0.0		0.0	0.0	0.0				36		a	44	81	
02:45	2	0	4	0	7	19	11	0	0	30	0	0	0	0	0	ļ	30	_	_		0.873	g _{i.} }
Volume	3	٠	•	_							Ì					02:45	PH					1
Peak Factor	03:30 (144				02:45	PM		_		2:15:0	0 P.M. 0	n	0	0		36	8	0	44	ĺ	
High Int. Volume	2		10	0	12	19	11	. 0	0	30 0.875	l °	٠	·	·						0.641	j	u.
Peak Factor					0.625	I				J.D. V	•											ц.



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Weather : Sunny Counter Num: 2.1

Austin Tsutsumi and Assoc. 501 Sumner Street, Suite 521 Honolulu Hawaii 96817 Ph. (808) 533-3646 Fax. (808) 526-1267

Komohua Street

Each * Equals 25 Vehicles

		•				Ph.	(808)
Begin	<	Quarter	Hour	>	Hour		
Time		2nd	3rd	4th	_ Total		F
12:00 0	5/14		•	*	*		Eac
01:00	•	•	•	•	•		
02:00	•	•	•	•	•		
03:00	•	•		•	•		
04:00	•	•	•	•			
05:00	•	•	•	•	•		
06:00	•	•	•				
07:00	•	•	•	•			
08:00	•	•	•				
09:00	•	•	•	3			
10:00	21	15	13	12	61		
11:00	28	20	12	13	73		
12:00	21	12	16	13			***
01:00	17	16	16	18	58 67		••
02:00	23	25	19	23			***
03:00	13	13	18	31	90		****
04:00	21	20	26	22	75		***
05:00	12	12	-8	23	89		****
06:00	14	12	17	16	55		**
07:00	23	īī	16	18	59		••
08:00	16	5	iŏ	3	68		***
09:00	و	12	7		34		•
10:00	10	îî	á	13 7	41		••
11:00		- 4	2	á	32		•
Total	•	•	2	3	13		•
					815		

AM Peak

The AM peak hour began 10:30. The peak volume was 73. The largest interval began 11:00, and contained 28 vehicles. The peak hour factor was .65

PM Peak

The PM peak hour began 03:45. The peak volume was 98. The largest interval began 03:45, and contained 31 vehicles. The peak hour factor was .79

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Weather : Sunny Counter Num: 2.1

Komohua Street

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Austin Tsutsumi and Assoc. 501 Sumner Street, Suite 521 Honolulu Hawaii 96817 Ph. (808) 533-3646 Fax. (808) 526-1267

Site Code : 0000000000000 Start Date: 05/14/2001 File I.D. : I:\HOME\ENG\E Page : 2

Begin	<qu< th=""><th>arter</th><th>Hour</th><th>></th><th>Honz</th><th>n l a Ferral a 25 Mahi alas</th></qu<>	arter	Hour	>	Honz	n l a Ferral a 25 Mahi alas
Time	1st_	2nd	3rd_	4th_	Total	Each • Equals 25 Vehicles
12:00 05/1	5 4		1	1	7	
01:00	3	1	1	1	6	
02:00	0	3	5	4	12 2	
03:00	0	0	1	1	2	
04:00	4	4	3	4	15 52	•
05:00	10	11	10	21	52	••
06:00	21	18	24	33	96	•••
07:00	24	40	34	12	110	****
08:00	16	21	11	15	63	***
09:00	12	16	17	8	53	••
10:00	17	16	13	22	68	***
11:00	19	16 13	20	11	63	•••
12:00	ĩź	13	13	14	57	••
01:00	-Ġ	14	19	20	59 95	**
02:00	2Ĭ	31	25	18	95	****
03:00	22	12	25	16	75	***
04:00	18	35	•	•	•	
		•	•	•	•	
05:00				•	•	
06:00	•	•	•	•	•	•
07:00	•	•	•	•	•	
08:00		•	•	•	•	
09:00			•	•	•	
10:00			•	•	•	
11:00	-				833	
Total						

The AM peak hour began 06:45.
The peak volume was 131.
The largest interval began 07:15,
and contained 40 vehicles.
The peak hour factor was .82 AM Peak

The PM peak hour began 01:45. The peak volume was 97. The largest interval began 02:15, and contained 31 vehicles. The peak hour factor was .78 PM Pesk

APPENDIX B

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

The level of service criteria for unsignalized intersections is defined as the average total delay, in seconds per vehicle. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line, this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position.

- * .

While the criteria for level of service for two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections are the same, procedures to calculate the average total delay differ.

Level of Service Criteria for TWSC Intersections

Level of Service	Average Total Delay (seconds/vehicle)
Α	< 5
В	>5 - < 10
С	>10 - < 20
D	>20 - < 30
E	>30 - < 45
F	> 45

APPENDIX C LEVEL OF SERVICE CALCULATIONS

APPENDIX C

LEVEL OF SERVICE CALCULATIONS
• Existing Conditions

AVERAGE TOTAL INTERSECTION DELAY =

LEVEL OF SERVICE .

0.67

. . . .

AVERAGE MINOR APPROACH DELAY = LEVEL OF SERVICE =

ATA Inc.	STOP CON	TROLLED T-INI	ERSECTIONLE	AET OL SEK	- VICE NIOLI	313				Print Data:	1994 h	
laior Street	Kamehameha Highway									Analyst:	NK	O1
linor Street	Kohomus Street									File Name:		
Peak Hour.	PM									(NO 1144110.	KMTH-K	ohomus
Scenario:	Existing											
eak Hour Factor	r. 0.95									. 0	V5 (vp)	h)
NAJOR ST		V2 (vph)	1558	→				4				
Num of Lenes										. 0	V4 (vpl	h)
Excl RT - V3 (Y.		V3 (vph)	0	_							4444	**
top/Yield - V3 (Y				•				- ₹		MAJOR STRE	ET:	
% Grade - \	/2,V3: 0			•				•		Kamehamaha		
Num of Lanes -					4		ام	•				
Exct LT - V4 (Y/					J		- 1					
% Grade - \	/4,V5: 0				Ĭ		1				NORT	- u
MINOR STE	₹EFT				0		94				MON!	• •
kum of Lanes - V												
Shared Lane (Y	·				V7 (vph)		/B (vph)					
% Grade - V				MINOR	STREET: N	.ohomi	38 58 96 1					
OLUME ADJUS	TMENTS									7		9
MOVEMENT N	ю. І	2		3	4			0		6		99
VOLUME, V (V		1745		0	0			0		ő		109
VOLUME, V (P		1745		0	0							
TEP 1: RT FROM	I MINOR STREET - V9			-		C		873		87:	3	vph
Conflicting Flor	WEC .		0 = 1/2°V3+V2 =			U	•	0.0		500		poph
Potential Cape		Çp.								500		pcph
Movement Cap	secity:	CM	.9 = Cp.9 =				_					
EP 2: LT FROM	MAJOR STREET - V4					0		1745		174	5	vph
Conflicting Flow	vs:		t= V3+V2 =			٠	•	1140		198		pcph
Potential Cape	dty:	Cp.								194	3	pcph
Movement Cap			4 = Cp.4 =							1.000)	• •
Prob. of Queue		p 0,4	i = 1-v4/Cm,4 =									
Major Left Sher Prob. of Queue		р*о,	4 = 1-{(1-00.4)/(1	-v5/s5)]						1.000)	
TD 9-17 EDC-14	MINOR STREET - V7											
Conficting Flow		Vel	= 1/2V3+V2+V5	+V4 =						1745		Vph
Potential Caces		Cp.7								103	,	pcph
Capacity Adjust												
	ng Movements:	17 =p	0,4=							1.000		a.ook
Movement Cap		Cm.	7 = 17°Cp,7 =							100	,	bcbp
AV AND LESS	L OF SERVICE SUMMARY					csh		VG TOTA	Ľ			
Movement	LOT DENTICE COMMONT	v(vcph)		cm(pcph)		cph)		DELAY		LOS		
MINOR LEFT TO	URN (7)	0		103	_	HRD		SHRD 9.19		SHRD B		
MINOR RIGHT		109		500		500				C		
MAJOR LEFT T		0		196	-	_		18.15		_		<u> </u>
AVEDACE MI	NOR APPROACH DELAY	9.1	9 sec/veh		AVERAGE	TOTA	LINTER	SECTION RVICE =	DEL	AY =	0.5	54 sec/veh A

v--j

788 1232 1440

4.76 A

sec/veh

5HRD 798 SHRD 4.78 2.55

AVERAGE TOTAL INTERSECTION DELAY = LEVEL OF SERVICE =

SHRD

MINOR LEFT TURN (7) MINOR RIGHT TURN (9) MAJOR LEFT TURN (4)

AVERAGE MINOR APPROACH DELAY

LEVEL OF SERVICE .

Major Street: Minor Street: Peak Hour: Scenario:	Kalatoa Stree Kohomua Stri PM Existing										Date: ilyst: Name:	09-Jul-01 NK Kataloa-Ko	hотнив
Peak Hour Factor	-	0.97								112	,	V5 (vph)	
NAJOR ST	REET	1	V2 (vph)	38	→				4	'''	•	vo (vpr)	
Num of Lanes -	· V2:	1		_						24	ı	V4 (vph)	
Excl RT - V3 (Y/	/N):	N	V3 (vph)	<i>π</i>	_							** (****)	
Stop/Yield - V3 (Y	'/N):	N			2				- √	14 V	R STREE	Τ,	
% Grade - V	/2,V3:	°			•				·		a Street	•	
Num of Lanes -	V5:	1				4 \		71	•				
ExcitT-V4(Y/	N):	N				1		- 1				1	
% Grade - V	/4,V5:	0				1		1					
MINOR STE	REET					17		11				NORTH	
Num of Lanes - V	7,V9:	1				1.00 timber		an tracks					
Shared Lane (Y		Y			****	V7 (vph)		VD (VPh)					
% Grade - V	78V9:	0			MINOR	STREET:	KONOTH	30 TO					
OLUME ADJUST	TMENTS									7	,	-	9
MOVEMENT N			2		3	4			_	18			11
VOLUME, V (V		1	39		79	25			115	10			11 12
VOLUME, v (po		}	39		79	27			115		<u>'</u>		· · · · · · · · · · · · · · · · · · ·
Conflicting Flor Potential Cape Movement Cap	ws: city:	T-V9	Cp.9	= 1/2*V3+V2 = = = Cp,9 =			40	•	39	•	79 1263 1263	px	 բրի բրի
TEP 2: LT FROM Conflicting Flow Potential Cape Movement Cap Prob. of Queue	vs: city: acity:	T-V4	Cp,4 Cm,4	* V3+V2 = * * Cp,4 = * 1-w4/Cm,4 =			79	٠	39	•	119 1505 1505 0.982	pć	ph ph
Major Left Shar Prob. of Queue	red Lane i-free State:		p*o,4	= 1-{(1-po,4)/(1	~5/s5)]						0.961		
TEP 3: LT FROM		T-V7	V-7:		•V4 =						219		ph
Conflicting Flow		ļ	νω, - Cp,7 :								791	, pc	ph
Potential Capac Capacity Adjust		i											
Due To Impedi		ĺ	f7=po	4=							0.961		
Movement Capi		i		=17°Cp,7 =							775	pc	ph
ELAY AND LEVE	OF SERVICE	SUMMARY					csh		VG TOTAL				
Movement Movement			v(vcph)		cm(pcph)	(pcph)		DELAY	103	<u> </u>		
MOABILIELY									CUDS	SHRD	_		
MINOR LEFT TO	URN (7)		19		775	5	HRD		SHRD				
MINOR RIGHT			12		1263		914		4.06 2.44	A			
MAJOR LEFT T			27		1505				4.44	^			
AVERAGE MI	NOR APPROAC	H DELAY = RVICE =	4,08 A			AVERAG		L INTER L OF SEI	SECTION RVICE =	DELAY =		0,67 A	sec/veh

-

14.7

-:

3.24 1

Major Street: Minor Street: Peak Hour: Scenario:	Kamehame Kohomua S AM Existing	sha Highway Street			•				Print Di Analy File Na	st:	09-Jul-01 NK Kam-Kohomu	•
Peak Hour Fecto		0,90						4			V5 (vph)	
MAJOR ST	REET	_ 1	V2 (vph) 671					•				
Num of Lanes		2						_	0		V4 (vph)	
Exal RT - V3 ()	/N):	N	V3 (vph) 0						-			
Stop/Yield - V3 (N		¥				₹	MAJOR	STREET	r:	
% Grade -	V2,V3:	۰							Kameha	meha Hi	ghway	
Num of Lanes	- V5;	1			4		ام	•				
Excl LT - V4 (Y	/N) :	N			1		- 1					
% Grade -	V4,V5:	0			1		1				NORTH	
MINOR ST					0		102				IMPRILIT	
Num of Lanes -		1. 1.			V7 (vph)	١	/9 (vph)					
Shared Lane (Y		uiwoo s	TREET:							
% Grade -	V7&V9	•		MINOR	HREEL !							
OLUME ADJUS	TMENTS				4			5	7		9	
MOVEMENT	NO.		2	3	ő			ŏ	ò		113	
VOLUME, V			748	0	0			ŏ	ŏ		125	
VOLUME, v (ocph)	1	748	V								
TEP 1: RT FRO	M MINOR STE	REET - VP				_		373	-	373	vph	
Conflicting Fk	WS:		Vc.9 = 1/2*V3+	-V2 =			•	•		896	pcph	
Potential Cap	acity:	1	Cp,9 =							896	pcph	
Movement Ca	pacity:		Cm,9 = Cp,9 =									
TEP 2: LT FRO	N NAJOR STR	EET-V4				0	_	745	_	746	vph	
Conflicting Flo		- 1	VC.4 = V3+V2 =	•		·	•	,-0	_	682	peph	
Potential Cap	acity:	- 1	Co.4 =							682	pcph	
Movement Ca		i i	Cm,4 = Cp,4 =							1.000	• •	
Prob. of Queu		l	po,4 = 1-44/Cm	L4 =								
Major Left Shi Prob. of Que			p*o,4 = 1-{(1-po	o,4)/(1-v5/s5)]						1,000		
TEP 3: LT FRO	MINOR STR	EET - V7		5.15.1/4 =						746	vph	
Conflicting Flo			Vc,7 = 1/2V3+\							392	pcph	
Potential Cap			Cp.7 =								-	
Capacity Adju			f7≈po,4=							1.000		
Due To Imper		ux	Cm,7 = 17*Cp.7	· =						392	bcbp	
Movement Ca	pecity:		CILI - II OPI									
LAY AND LEV	EL OF SERVIC	E SUMMARY	,			csh pcph)		VG TOTAL	LOS			
Movemen			v(vcph)	cn(pcph)								
MINOR LEFT	TURN (7)		0	392	5	HRD		SHRD 4.65	SHRD			
MINOR RIGHT			125	896		895		4.00 5.28	â			
MAJOR LEFT			0	682		_		y.20	_			
AVERAGE N	IINOR APPRO	ACH DELAY	# 4,65 sec/V	eh	AVERAG	E TOTA	L INTER	SECTION I	DELAY =		0.67 A	sec/ve

<u>6-1</u>

Aajor Street Alnor Street	Kamehami Kohomua	she Highway Street							Print Del Analys File Nar	t NK	Jul-01 (:m-Kohomus	
Peak Hour:	PM											
Scenario:	Extering											
_												
usk Hour Facto	r.	0.95	V2 (voh) 1658 -					4	0	V5	(vph)	
WAJOR ST			V2 (vph) 1658 -									
Num of Lanes		2							0	V4	l (vph)	
Exc RT - V3 (Y		N	V3 (vph) 0									
pp/yield - V3 (N		→				₩	MAJOR S			
% Grade -	V2.V3:	0		•					Kamehar	neha High	WBY	
70		i			4		ام	•				
Num of Lenes	- V5:	, ,			7		- (
Ext LT - V4 (Y	AND:	N			1		- 1			_		
% Grade -	V4.V5:	0 1			}		- 1					
,,		1			ò		94			N	IORTH	
MINOR ST	REET	I			•							
ium of Lanes -		1			V7 (vph)	V	o (voh)					
Shared Lame (YAN:	Y		# MANAGE	STREET:							
% Grade -	V74V9:	0		MUNOR	O : Nee : :							
79												
OLUME ADJU	STMENTS		_	3	4			5	7		9	
MOVEMENT	NO.	٠ .	2	_	0			ò	0		99	
VOLUME, V		l	1745	0	0			Ö	0		109	
VOLUME, V		j	1745	0	J			-				
AOLOWE' A (Pendou 11	- 1										
TEP 1: RT FRO	M MINOR ST	REET - VO				D	•	873	=	873	vpt	
Conflicting F	ems,	· [Vc,9 = 1/2	*V3+VZ ■		•				500	bcbt	
		i	Cp,9 =							500	bcbt)
Potential Cap Movement Ca	marite		Cπ(9 = C)),9 =								
MOVEMBER C	aband.	i										
TEP 2: LT FRO	MANA IOD ST	DEFT.V4				0		1745	_	1745	vpt	ì
TEP 2: LT FRO	M MAXARSI	CLL - VI	Vc.4 = V3	V2 =		U	•	17-44		196	pcpt	ì
Conflicting Fi		i	Co.4 =							198	pcpt)
Potential Cap		1	Cm.4 = Cr),4 =						1,000		
Movement C	pecty.	į.	po.4 = 1-4	4/Cm,4 =								
Prob. of Que	ue-tree State:	- 1	•							1.000		
Major Laft Sh	HLEG FIELD	1	p*o,4 = 1-	(1-po,4)/(1-v5/s5))								
Prob. of Que	ve-tree State:		• •									
TEP 3: LT FRO	MA LANDO ET	REET • V7								1745	vpl	1
TEP 3: Li PKC	AND WILLOW OIL			V3+V2+V5+V4 =						103	pcpl	1
Conflicting F		I	Cp.7 =									
Potential Car	apaty: 	, 1								1,000		
Capacity Adj	ustment Facto	iner I	f7=po,4=							103	popi	ח
Due To Impo	ding Moveme	· · ·	Cm,7 = 17	'Cp.7 =								
Movement C	apatony.	i						AVG TOTAL				
ELAY AND LE	EL OF CEM	OCE SIMMAR	IY			csh		DELAY	LOS			
		ICC SUMMOUN	v(vcph)	cm(pcph)		(bcbp)		UELAT		-		
Movem			-11-4-3			EUDO		SHRD	SHRD			
	THIS IT		0	103		5HRD		9.19	В			
MINOR LEFT	LINKW (1)		109	500		500		18.16	č			
MINOR RIGH	TTURN (9)		0	198				10.10	_			
MAJOR LEF	TTURN (4)		-						DELAY -		0.54	secivel
		O A CALL DEL AV	(= 0.19	sec/veh	AVERA	GE TOT	AL INTE	RSECTION	DELAT =			
AVERAGE	MINOR APPE	CACH DELAY				LEVE	el, of S	ERVICE =			-	
AVERAGE	MINOR APPE LEVEL C	OACH DELAY OF SERVICE =		sec/veh	AVERA	GE TOTA	AL INTE	ERVICE =	DELAI -			Ä

APPENDIX C

LEVEL OF SERVICE CALCULATIONS
• Future without Project

1994 HCM

AVERAGE TOTAL INTERSECTION DELAY = LEVEL OF SERVICE =

MAJOR LEFT TURN (4)

AVERAGE MINOR APPROACH DELAY = LEVEL OF SERVICE =

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Major Street: Minor Street: Peak Hour: Scenario:	Kalaloa Stre Kohomus S AM without proj	treet									Print D Anai File N	yst	09-Jul-01 NK Kalaloa-Koho	mua witho
Peak Hour Factor	 	0.75									65		V5 (vph)	
MAJOR ST			V2 (vph)	35 ———	→				4		_ ~		10 (1)	
Num of Lanes		1									20		V4 (vph)	
Exc RT - V3 (Y		N	V3 (vph)	95									* * (*)	
Stop:Yield - V3 (Y	'/N):	N			è				∀		MAJOR	STREE	т.	
% Grade - \	/2,V3:	D			•						Kalaloa		•••	
Num of Lanes	· V5:	1				4		,	.▶					
Ext LT - V4 (Y/	N):	N				1		- 1						
% Grade - \	/4,V5:	•				1		- 1					ļ.	
		ŀ				30		5					NORTH	
Num of Lanes - V	/7,V9:	1						. 40 /						
Shared Lane (Y	//N):	Y				V7 (vph)		V9 (vpt						
% Grade - V		0			MINOR	STREET:	Konom	us Sre	et					
OLUME ADJUS	TMENTS										7		9	
MOVEMENT A			2		3	4			5		40		7	
VOLUME, V (V	ph)	- 1	47	12		27			87 87		44		7	
VOLUME, V (P			47	12	7	29			8/		**			
TEP 1: RT FROM	I MINOR STRI	EET-V9					63		47	-		110	vph	
Conflicting Flor		- 1		= 1/2*V3+V2 =			0.3	•	٦,			1218	pcph	
Potential Cape		- 1	Cp.9									1218	pcph	
Movement Cap	ecity:	İ	Cm,s	= Cp.9 =										
TEP 2: LT FROM	MAJOR STRE	ET•V4					127		47	_		173	yph	
Conflicting Flow	VIII.	- 1		= V3+V2 =			127	•		_		1417	pcph	
Potential Cape			Cp.4									1417	pcph	
Movement Cap				= Cp,4=								0.979	* "	
Prob. of Queue		- 1	po,4 ·	= 1-v4/Cm,4 =										
Major Left Shar Prob. of Quave			p*o,4	= 1-[(1-po,4)/(1-v	5/55)]							0.978		
TEP 3: LT FROM		ET-V7		1/2V3+V2+V5+\								223	vph	
Conflicting Flow		- 1	Vc./ • Cρ.7 •									785	pcph	
Potential Capeo		- 1	ср,г	-									-	
Capacity Adjust		. 1	!7 =po	Ant								0.978		
Due To impedi Movement Capa		.		=17°Cp,7 =								769	pcph	
LAY AND LEVE	OF SERVICE	SUMMAR	Υ				csh		AVG TOT	NL.				
Movement			v(vcph)		cm(pcph)		(pcph)		DELAY		LOS			
MINOR LEFT TO	URN (7)		44		769		SHRD		SHRD		SHRD			
MINOR RIGHT			7		1218		812		4.73 2.59		^			
MAJOR LEFT T			29		1417									
AVERAGE MI	NOR APPROA		# 4,73 A			AVERAC	E TOTA	L OF S	RSECTIO	N DE	LAY =		0,94 A	sec/veh

Major Street: Minor Street: Peak Hout: Scenario:	Kalaloa Stree Kohomus Stri PM without projec	set						-	·		Print Date: Analyst File Name:	09-Jul-01 NK Kalaloa-K	ohomus withou
Peak Hour Facto		0.97		40							_ 120	V5 (vph)	
MAJOR 57		. 1	V2 (vph)	40	→				•		- 120	An (Abril	
Num of Lanes		1									. 25	V4 (vph)	
Exct RT - V3 (Y		N	V3 (vph)	80	_				_		. 23	And (Abus)	
Stop/Yield - V3 ()	//N):	N			-				₹		MAJOR STRE	ET.	
% Grade - 1	V2,V3:	0			•				•		Kalalos Stree		
Num of Lanes	-V5:	1				•		طہ					
Excl LT - V4 (Y/		N				1		- /					
% Grade - \		اه				1		- 1					
70 (3.500 -	,	_				1		1				į.	
MINOR STI	RFFT]				20		10				NORTH	
Num of Lanes - \		- 1											
Shared Lane ()		Ϋ́				V7 (vph)	1	V9 (vph)					
% Grade - \		6			MINOR	STREET:							
AOLUME ADJUS	THENTE			<u>-</u> -									
		l l	2		3	4			5		7		9
MOVEMENT		i	41		82	26			124		21		10
VOLUME, VA		- 1	41		B2	28			124		23		11
VOLUME, v (p	cph)		41		EK.	20							
TEP 1: RT FRO	MINOR STREE	T-V9			-				41		8	•	voh
Conflicting Flo				= 1/2"\/3+\/2 =			41	+	41	-	125	_	sayı Sayı
Potential Caps	icty.	- 1	Ср,9								125	-	oph
Movement Cap	pecity:	- 1	Cm,	9 = Cp,9 =							120	, p	
TEP 2: LT FROM	MAJOR STREE	T-V4											
Conflicting Flor		- 1	Vc,4	= V3+V2 =			82	•	41	=	124		<i>r</i> ph
Potential Cace		l l	Cp.4	-							149	•	φħ.
Movement Cap			Cm.4	= Cp.4 =							149		zph
Prob. of Queue		- 1		= 1-v4/Cm,4 =							0.96	l	
Major Left She		1		•								_	
Prob. of Queue		- 1	p*o,4	= 1- <u>[</u> (1-po,4)/(1-45/15)]						0.971	•	
TEP 3: LT SROW	MINOR STREET	-V7	<u></u>										
Conflicting Flow		· · ·	Vc.7	= 1/2V3+V2+V	5+V4 =						23		ph .
Potential Cape		í	Cp.7	•							777	7 pi	ph.
Capacity Adjust		j											
	ng Movements:	1	f7=pc	.4=							0.971		
Movement Cap		- [=17°Cp,7=							761	P	ph ph
ELAY AND LEVE	OF SERVICE S	INMARY					csh	AVA	S TOTA				
ELAY AND LEVE Movement	F OL SEKAME S		v(vcph)		cm(pcph)		ocph)	D	ELAY		LOS		
MINOR LEFT TO	IRN (7)		23		781	S	HRĐ	8	HRD		SHRD		
MINOR RIGHT			11		1258	_	877		1.27		A		
MAJOR LEFT T			28		1497	-		:	2.45		A		
AUTOICE	NOO ADOOOACS	MEI AV -	47	7 sec/veh		AVERAGE	TOTA	LINTERS	ECTION	DEL	\Y =	0.69	sec/veh
AVERAGE MI	NOR APPROACH LEVEL OF SEF		4.27		:	AVERAGE	LEVEL	L INTERS OF SERV	ACE =		NI =	Ø.59	SSC YM1

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lajor Street: linor Street: Peak Hour:	Kamehameha Kohomus Stre AM	re!									Print Dati Analyst File Nam	. 1	9-Jul-01 iK Œm-Kohomi	ja withou
Scenario:	future without	project												
eak Hour Factor	:	0.90		710					4		0	١	/5 (vph)	
MAJOR ST	REET	_	V2 (vph)	710	~				•					
Num of Lanes		2	V3 (vph)	0							- 0	١,	/4 (vph)	
Exc RT - V3 (Y		N N	A2 (Abri)	·	_									
top/Yield - V3 (Y		0			Ť				7		MAJOR 5			
% Grade - 1	/2,V3:	١						_			Kameham	eha Hiç	phway	
Num of Lanes		1				1		(•					
೬ುದ LT - V4 (Y/		N				1		- 1						
% Grade - \	/4,V5:	0				1		1					NORTH	
MINOR STI	REET	- 1				0		110						
lum of Lanes - \	/7,V9:	1				V7 (vph)	١.	/9 (vph)						
Shared Lane (1	//N):	Y			MAN	STREET:			ı					
% Grade - \	/7&V9:	0			MINON	o incei.	1420.00.10			_				
OLUME ADJUS	THENTS								5		7		9)
MOVEMENT			2		3	4			ŏ		ò		122	
VOLUME, V			789		0	0			ŏ		Ō		134	ļ.
VOLUME, V (ŀ	789		0	v								_
TED 1: RT FRO	M MINOR STREE	ET - V9						_	394	_		394	V pi	h
Conflicting Fig		- 1		,9 = 1/2°V3+V2 =		•	U	•	QQ ••			674	pcpi	
Potential Cape		- 1		,9×								674	рср	h
Movement Ca		i i	Cr	1,8 = Cp,9 =										
750 2-17 FPO4	MAJOR STREE	T-V4							789	_		789	Vpl	h
Conflicting Flo	wa:	1	Vo	4 = V3+V2 =			0	•	100	_		647	рср	
Potential Cape				,4 =								647	рср	
Movement Ca				1,4 = Cp,4 =								1,000	• •	
Prob. of Queue			po	4 = 1-v4/Cm,4 =										
Major Left She	red Lene	1	_									1.000		
Prob. of Queu	e-tree State:	1	pro	0,4 = 1-{(1-p0,4)/(1	-vorso))									
EP 3: LT FROM	MINOR STREE	7 • V7										789	V P	h
Conflicting Flo				7 = 1/2V3+V2+V5	PV4 =							370	рср	h
Potential Capt	city:]	Cp	,7=										
Capacity Adjus	dment Factor			20,4=								1.000		_
Due To Imped	ing Movements:			1,7 = 17°Cp,7 =								370	bcb	n
Movement Cap	secity:		L.	ur - ir op,r -										
LAV AND LESS	L OF SERVICE	SUMMARY	, 				csh		AVG TOTA	AL.	LOS			
Movemen	(v(vcph)		сш(bcbµ)		(bcbp)		DELAT					
MINOR LEFT	n IDN (7)		0		370		SHRD		SHRD		SHRD			
MINOR LEFT			134		674		874		4.57		Ê			
MAJOR LEFT			0		647		_		5.57					
MAJOR LEP					•					1105	140-		0.71	seche
AVERAGEN	NOR APPROAC	H DELAY	. 4	.87 sec/veh		AVERA	GE TOTA	T INTE	RSECTIO	NVE	PV1 -		V,71	
	MACHINE	RVICE =		A			IFVE	LUFSI	スソルこう				•••	

10.15

AVERAGE TOTAL INTERSECTION DELAY = LEVEL OF SERVICE =

470

AVERAGE MINOR APPROACH DELAY = LEVEL OF SERVICE =

10.15 sec/veh

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APPENDIX C LEVEL OF SERVICE CALCULATIONS • Future with Project

Major Street: Minor Street: Peak Hour: Scenario:	Kamehameh Kataloa Stree AM with project							Print Date: Analyst File Name	NK
Paak Hour Factor		0.90	101 - 11 705					0	V5 (vph)
NAJOR ST		_ [V2 (vph) 785						12 (1p. 3
Num of Lanes		2	V3 (voh) 65					0	V4 (vph)
Exct RT - V3 (Y	•	Y	V3 (vph) 65	_					
iopYleid - V3 (Y		Y		¥			₹	MAJOR ST	REET:
% Grade - \	/2,V3:	°						Kamehame	ha Highway
Num of Lanes	V5:	1			•	,	/		
Exc! LT - V4 (Y/	N):	N [1	- 1			
% Grade - \	4,V5:	0			1	- 1			
					ò	50)		NORTH
MINOR STE		1			•				
Shared Lane (1		Ϋ́			V7 (vph)	V9 (vpl			
% Grade - \		ò		MINOF	STREET: Kalak	a Street	l		
OLUME ADJUS	MENTS							7	9
MOVEMENT I			2	3	4		5 0	á	56
VOLUME, V (V	ph)	- 1	872	72	0		0	Č	61
VOLUME, V (P	cph)		672	72	0				
TEP 1; RT FROM	MINOR STRE	ET-V9					436		436 Vph
Conflicting Flor		- 1	Vc.9 = 1/2*	V3+V2 =	•	•	450		532 pcph
Potential Capa		1	Cp,9 = Cm,9 = Cp	G ==				1	832 poph
Movement Cap	acity:	- 1	City = Cp	, 					
TEP 2: LT FROM	MAJOR STRE	ET - V4			 	•	872	. 1	572 Vph
Conflicting Flor		- 1	Vc.4 = V3+	V2 =	u	•	0,2		583 pcph
Potential Cape			Cp.4 =	4-					583 paph
Movement Cap		- 1	Cm,4 = Cp, pp,4 = 1-v4					1.0	200
Prob. of Queue		1	po,4 = 1-4-4	roll-					
Major Left Shee Prob. of Queue		- 1.	p*o,4 = 1- <u>i</u> (1-po,4)/(1-v5/s5)]				1.0	000
EP 3: LT FROM	MINOR STREE	7- 77	-						
Condicting Flow	rs;	ľ		/3+V2+V5+V4 =					572 vph 531 pcph
Potential Caper	#y:	- 1	Cp.7 =					•	a. pape
Capacity Adjust	ment Factor							1.0	000
	ng Movements:	- 1	17≠po,4≠						331 pcph
Movement Cap	acity:	1	Cm,7 = 17*0	<i>-</i> p,₁ =					
LAY AND LEVE	OF SERVICE	SUMMARY			csh		AVG TOTAL		
Movement			v(vcph)	em(pcph)	(pcph)		DELAY	LOS	
MINOR LEFT T	URN (7)		0	331	SHRD		SHRD	SHRD	
MINOR RIGHT			61	632	832		4.67	<u> </u>	
MAJOR LEFT T			0	583	_		6.17	9	
		H DELAY =	4.57 84	c/wh	AVERAGE TO	AL INTE	RSECTION	DELAY =	0.28 secA4

Major Street Minor Street Peak Hour: Scenario:	Kamehame Kalalos Stre PM with project							Print De Analys File Nas	t	09-Jul-01 NK Kam-Kalaloa with
Peak Hour Facto	•	0.95								
MAJOR ST		_ [V2 (vph) 1830				←	•		V5 (vph)
Num of Lanes		2						_		
Ext RT - V3 (Y		¥i	V3 (vph) 155				_	0		V4 (vph)
1) EV - bleit/qct2 / - eber3 #		, ,		→			√	MAJOR S	7000	•.
76 (37809 - 1	2,43,	١		•			•	Kamehart		
Num of Lanes -	V5:	1 1					_	(Validation)		Armsy
Excl LT - V4 (Y/		N I			7	<i>(</i> '				
% Grade - \		i i			1					
	1,00.				1	j				
	EET	- 1			0	30				NORTH
Num of Lanes - V	7,V9:	1			-					
Shered Lene (Y		Υ				V9 (vph)				
% Grade - V	7&V9	0		MINOR	STREET: Kalalor	Street				
VOLUME ADJUST	HENTE	 -								
VOLUME ADJUST MOVEMENT N			2	3	4		5	7		9
		- 1	1926	163	õ		ő	ó		32
VOLUME, V (V) VOLUME, V (p)			1926	163	Ö		0	ů		32 35
VOLUME, V (p.	421)	1	1920	iω	U		U	v		33
TEP 1: RT FROM	MINOR STRE	ET - V9								· · · · · · · · · · · · · · · · · · ·
Conflicting Flow	181	1	Vc,9 = 1/2	"V3+V2 =	0	•	963		963	vph
Potential Caped		ſ	Cp.9 =						450	pcph
Movement Cap	ecity:	i i	Cm,9 = C	9.9=					450	pcph
		- 14	····	·						 .
TEP 2: LT FROM		:1 • V4	Vc.4 = V34		0		1925		925	
Conflicting Flow		1		V2 ■	U	•	1920		158	Abu
Potential Capac Movement Capa		- 1	Cp.4 = Cm.4 = Co						158	pcph pcph
Prob. of Queue-		1	20.4 = 1-w						000	рефп
Major Left Share			h0'4 1-4-	works -						
Prob. of Queue		ľ	p*o,4 = 1-{((1-po,4)/(1-v5/s5)]				1.	.000	
				-						
EP 3: LT FROM		r-v7								
Conflicting Flows		ľ		/3+V2+V5+V4 =				1	926	vph
Potential Capaci		- 1	Cp,7≃						81	poph
Capacity Adjustn Due To Impedin		j	f7=po,4=					_	000	
Movement Cape			1/=p0,4= Cm,7 = 17*(~~ 7 =				7.	81	pcoh
MOVEMENT CEPT	⊒ty.	- 1	GIL! = 1/-(4,1 =					91	рерл
LAY AND LEVEL	OF SERVICE	UMMARY	···-		csh		G TOTAL			
Movement			v(vcph)	cm(pcph)	(pcph)		ELAY	LOS		
MINOR LEFT TU	RN (7)		0	81	SHRD	9	HRD	SHRO		
MINOR RIGHT T			35	450	450	ī	8.67	В		
MAJOR LEFT TU			Ö	158	_	2	2.72	D		
AVERAGE MIN	OR APPROACE		8.67 as	c/veh	AVERAGE TOTAL	LINTERS		ELAY =		0,14 sec/veh

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LEVEL OF SERVICE =

STOP CONTROLLED T4NTERSECTION LEVEL OF SERVICE ANALYSIS

1994 HCM

ATA Inc.

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1994 HCM

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AVERAGE MINOR APPROACH DELAY = LEVEL OF SERVICE =

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AVERAGE TOTAL INTERSECTION DELAY =

LEVEL OF SERVICE =

1994 HCM

sec/veh

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Major Street Minor Street Peak Hour. Scenario:	Kemehameha i Kohomua Stre PM future with proje	nt .								-	rint Date: Analyst: Se Name;	09-Jul-01 NK Kam-Koh	Omus with
Peak Hour Factor	:	0.95									•	5.0E (combs)	
MAJOR ST	REET		V2 (vph)	1770	 ►				-		0	V5 (vph)	
Num of Lanes -	· V2:	2									_	144 4 >>	
Excl RT - V3 (Y	N):	Y	V3 (vph)	100	_						0	V4 (vph)	
Y) EV - blei Y got		N		_	<u> </u>								
% Grade - \		0			•				•		WOR STRE mehameha		
Num of Lanes -	V5:	1				•		,	.▶				
Exct LT - V4 (Y/		N]				1		- 1					
% Grade - V	/4,V5:	0				1		- 1					
								400				NORTH	
MINOR STE	REET	i				0		190				NOTCH	
ium of Lanes - V	7,V9:	1											
Shared Lane (Y	/N):	Υ				V7 (vph)		V9 (vph					
% Grade - V	7&V9:	°			MINOR	STREET:	Kohom	ua Sine	et .				
OLUME ADJUST									5		7		9
MOVEMENT N	Ю.	- 1	2		3	4			0		ó		200
VOLUME, V (V	ph)	- 1	1863		105	0			0		0		220
VOLUME, v (p	aph)		1863	1	105	0							
EP 1: RT FROM	MINOR STREET	-V9							932	_	932		vph
Conflicting Flor	VE:			9 = 1/2°V3+V2 =			0	•	832	-	467		ycoh xcoh
Potential Cape	city:	- 1	Ср.								467	•	xcph xcph
Movement Cap	acity:		Cm	,9 = Cp,9 =							401		A441
EP 2: LT FROM	MAJOR STREET	-V4									4000		
Conflicting Flow		1		I = V3+V2 =			0	•	1863	-	1863 171		vph
Potential Capac	ity:	- 1	Cp,4								171		cph
Movement Cap		- 1		4 = Cp,4 =							1.000		cph
Prob. of Queue	tree State:		po,4	= 1-v4/Cm,4 =							1,000	•	
Major Left Shart	ed Lane	·									1.000		
Prob. of Queue	-free State:		p*o,	4 = 1- <u>[</u> (1-po,4)/[1	-√5/s5)]						1,000		
	MINOR STREET -	V7									1863		vph
Conflicting Flow				= 1/2V3+V2+V5	+¥4 ■						58		cph
Potential Capac			Cp.7	-									- -
Capacity Adjust		- 1	~	- 4-							1.000)	
Due To Impedir		ı	17×p								88		cph
Movement Capi	icity:	- 1	uma	7 = 17*Cp.7 =									
AY AND LEVE	OF SERVICE SU	MMARY					cah	-	AVS TOTAL				
Movement			v(vcph)		cm(pcph)		pcph)		DELAY		LOS		
MINOR LEFT TU	1RN (7)		0		68	5	HRD		SHRD	SHI			
MINOR RIGHT			220		487		467		14.39	C			
MAJOR LEFT TO			0		171		—		21.01	D			
AVERAGE MIN	IOR APPROACH I	ELAY =	14,3	39 sec/veh		AVERAG			RSECTION	DELAY =		1.45 A	sec/wh

ATA Inc.	:	STOP CO	MTROLLED T-INTE	RSECTION LI	EVEL OF SE	RVICE ANAL'	rsis					1994 HCM	
Major Street Minor Street	Kohomua Str driveway	rect									A Maria a P	09-Ju-01 NK	
Peak Hour.	AM										File Name:	project drive	way
Scenario:	with project												
Peak Hour Factor.		0.82	V2 (vph)	10					_		. 110	V5 (vph)	
MAJOR STR		1	42 (9A)	,_					•				
Excl RT - V3 (Y/N		N	V3 (vph) 1	10							. 25	V4 (vph)	
Stop/Yield - V3 (Y/I		N	1									, .	
% Grade - V2		Ö			▼				₩		MAJOR STREE		
// Cracks - 1.5	.,,,,,	_									Kohomus Street		
Num of Lenes - \	/5:	1	1			4		طبر					
Excl LT - V4 (Y/N):	N				1		- 1				- 1	
% Grade - V4	,V5:	0	i			1		- 1				1	
						100		20				NORTH	
MINOR STRE		_				100		20					
Num of Lanes - V7		1				V7 (vph)	v	9 (vph)					
Shared Lane (Y/		Y			MINOR	STREET: d							
% Grade - V7		0			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,								
OLUME ADJUSTI			2	-	3	4			5		7	9	
MOVEMENT NO			12	•	34	30			134		122	24	
VOLUME, V (VP			12		34	34			134		134	27	
VOLUME, v (pq	an)		•••										
TEP 1: RT FROM		E1 - V9	Va D =	1/2*V3+V2 =			67	•	12		79	V pl	
Conflicting Flows		ſ	Co.9 =								1262	bcb	
Potential Capaci Movement Capa				Cp.9 •							1262	bcbi	п
MCVGHISH Cape												.——	_
TEP 2: LT FROM		ET • V4	\/- 4 =	V3+V2 =			134	•	12	•	146	vpt	
Conflicting Flows		ĺ	Co.4 =								1460	papi	
Potential Capaci Movement Capaci				Cp.4 =							1460	popi	n
Prob. of Queue-fi		- 1		1-v4/Cm,4 =							0.977		
Major Left Shere				•							0.975		
Prob. of Queue-		- 1	p*o,4 =	1-[(1-p0,4)/(1-	-v5/s5)]					_	U.9/5		
EP 3: LT FROM N	UNOR STREE	T-V7									244	· Vpi	h
Conflicting Flows	:	- 1		1/2/3+/2+/5	+V4 E						765	pcpt	h
Potential Capacit		- 1	Cp.7 =								. •-		
Capacity Adjustr			f7=po.4	t.m.							0.975		
Due To impeding		1		/7°Cp,7 =							746	pcpi	n
Movement Capec													
LAY AND LEVEL	OF SERVICE	SUMMAF	V(vcph)		cm(pcph)		ath coh)		G TOTA ELAY	L	LOS		
Movement											SHRD		
MINOR LEFT TU	RN (7)		134		745		IRD		SHRD 5.63		SHKD		
MINOR RIGHT TO	IRN (9)		27		1262	- 1	300		2.52		Ä		
MAJOR LEFT TU	RN (4)		34		1460	-		•			-		
		i se i a	/= 5.63			AVERAGE	TOTAL	INTERS	ECTION	DEL	AY =	2.09	sec/veh
AVERAGE MIN	UD Y DOOUT			sac/veh				OF SER				A	

AVERAGE MINOR APPROACH DELAY = LEVEL OF SERVICE = 5.40 B

sec/veh

AVERAGE TOTAL INTERSECTION DELAY = LEVEL OF SERVICE =

1

2.03

b