

**Application for Special Management Area,
Community Plan Amendment, Change In Zoning and
HRS Chapter 343 Environmental Assessment**

**Kaonoulu Phase VI
Multi-Family Residential Development**

Kihei, Maui, Hawaii
TMK: (2) 3-9-01: 157, 158

Prepared for:
Piilani Makai, LLC.
635 Kenolio Road, Kihei HI 96753
Phone: 808-879-5375
Fax: 808-879-5159

Submitted by:
Chris Hart and Partners, Inc.
Landscape Architecture and City and Regional Planning
115 Market Street
Wailuku, Hawaii 96793
Phone: 242-1955
Fax: 242-1956



**CHRIS
HART**
& PARTNERS, INC.
LANDSCAPE ARCHITECTURE
& LAND USE PLANNING

March 2008



APPLICATION
SPECIAL MANAGEMENT AREA (SMA)

Special Management Area Use Permit (SM1)

APPLICATION

APPLICANT INFORMATION

Name(s): Piilani Makai, Inc.

Address: 635 Kenolio Road City: Kihei State: HI Zip: 96753

Phone Number(s): (bus) 808-874-6613 (hm) (fax) 808-879-5159 (cel)

Email:

Signature: [Handwritten Signature]

Contact Name(s): Dwayne Betsill

Address: 635 Kenolio Road City: Kihei State: HI Zip: 96753

Phone Number(s): (bus) 808-874-6613 (hm) (fax) 808-879-5159 (cel)

Email:

OWNER INFORMATION

Name(s): Piilani Makai, Inc. / RDD, LLC.

Address: 635 Kenolio Road City: Kihei State: HI Zip: 96753

Phone Number(s): (bus) 808-874-6613 (hm) (fax) 808-879-5159 (cel)

Email:

Signature: [Handwritten Signature]

PROPERTY INFORMATION

Tax Map Key No: (2) 3-9-01:157,158 Total Area: 8.2 acres sq.ft./acreage

Location: 635 Kenolio Road Kihei, HI 96753 (Street Address, City, and/or Description)

PROPOSED ACTION

Written description of the proposed action shall include, but not be limited to: use, length, width, height, depth, building material(s), and statement of objectives of the proposed action. Attach additional sheets, if needed:

Describe Existing Use: Temporary Offices of Betsill Brothers Construction, Inc.

Describe the Proposed Use: The project is a Multi-Family residential development consisting of 166 units. The development will include 1,2 and 3 bedroom units.

Valuation*: \$ 25,000,000.00

* Total cost or fair market value as estimated by an architect, engineer, or contractor licensed by the Department of Commerce and Consumer Affairs, State of Hawaii; or, by the administrator of Department of Public Works, Development Services Administration.

LAND USE DESIGNATIONS

Table with 2 columns: Existing and Proposed. Rows include State Land Use District Boundary, Community Plan, County Zoning, and Other (i.e., SMA).

REQUIRED SUBMITTALS

- App. A 1. Evidence that the applicant is the owner or lessee or record of the real property to be reclassified; OR a notarized letter of authorization from the legal owner if the applicant is not the owner.
- App. G 2. List of owners and lessees of real property within a 500 feet radius of the subject parcel boundaries shall be obtained from the most current available list at the Maui County Department of Finance, Real Property Tax Division. This list should include the tax map key numbers and the names and addresses of all owners, lessees, and members of the Board of Directors or managing agents to be notified, including a map drawn to scale, clearly defining the 500 feet notification boundary and the parcels affected.
- See: 3. Two (2) copies of the Assessment Report with items listed on the Application Report Checklist on page 5 of the application. Note: The Department will review the application and request additional copies for agency transmittal.
- See: 4. Documentation indicating compliance with Chapter 343, HRS.
Report
5. Any other information as may be required by the Director of Planning or the appropriate Planning Commission of the County.
- See: Attached 6. A **non refundable** filing fee (see Fee Schedule, Table A on page 14);
Check payable to *County of Maui, Director of Finance*.

After reviewing the application submittals for suitability for transmittal to agencies, the Planning Department will notify the applicant of the need to provide additional copies.

APPLICATION CHECKLIST

Identify the page number in the document under "Location."

Content of Assessment Report		Location
1	A written description of the proposed action, including, but not limited to the use, length, width, height, depth, building materials, and statement of objectives of the proposed action.	pg.4
2	Analysis with supporting documentation, as necessary, of the anticipated impacts of the proposed action on the SMA that addresses or describes:	See: Report
	a) The environmental setting of the property that is the subject of the proposed action;	↓
	b) The relationship of the proposed action to land use plans, policies, and control of the affected area;	
	c) The probable impact, including cumulative impacts, of the proposed action on the environment;	
	d) Any probable adverse environmental effects that can be avoided;	
	e) Alternatives to the proposed action;	
	f) Mitigating measures proposed to minimize impacts; and	
	g) Any irreversible and irretrievable commitment of resources.	
3	Analysis of how the proposed action addresses the objectives, policies, and guidelines set forth in Sections 12-202-10 and 12-202-11 of the SMA Rules of the Maui Planning Commission; Sections 12-302-10 and 12-302-11 of the SMA Rules of the Molokai Planning Commission; or Sections 12-402-10 and 12-402-11 of the SMA Rules for the Lanai Planning Commission.	
4	For properties abutting the shoreline, submit three (3) sets of a certified shoreline survey (one original). The survey shall be the actual field location of the shoreline as prepared by a land surveyor registered in the State of Hawaii. The survey maps developed by the registered land surveyor shall bear the surveyor's signature and date of field survey and the certifying signature and date of the Chairman of the Board of Land and Natural Resources (BLNR).	N/A
5	A Preliminary Drainage Plan.	App.C

continued on back of page...

Content of Assessment Report		Location
6	A plot plan of the subject property prepared to scale and based upon an accurate instrument survey. The plan shall define and show the design of the proposed action and the existing physical conditions of the land, including but not limited to, property boundaries, topography, natural and man-made features, trees, and structures.	Fig. 11 App.C
7	A preliminary plan of the development designating the location the dimensions of the proposed action on the land. If structures are included in the proposed action, the plan of the development should include a dimensioned floor plan, sections, elevation, and other physical features. Said plans must be dated.	Fig.11 App.C
8	A preliminary landscape planting and irrigation plan defining tree and shrub locations, type of plant materials, sizes, irrigation lines, as well as landscape lighting and graphics. Said plans must be dated.	Fig.8
9	A photographic analysis (consisting of photos, slides or video) identifying the area where the proposed action is to occur. The visual analysis should include the site, surrounding properties, and relationship of the site to the nearest public roadway.	Fig.10
10	Any oral or written comments received from governmental or nongovernmental agencies, community organizations or individuals with regard to the proposed action, and a summary of the dates and attendance of public meetings held on the proposed action.	App.I
11	A colored rendering of the proposed action.	App.H
12	Any other information or documentation (i.e., traffic impact analysis, archaeological study, etc.) required by the Director.	See: Appendices

NOTICE OF APPLICATION

Date: _____

TO: OWNERS/LESSEES

Please be advised that the undersigned has filed an application for a Special Management Area (SMA) Permit with the County of Maui, Department of Planning for the following parcel(s):

- 1. Tax Map Key Number: (2) 3-9-001: 157, 158 (see attached location map)
- 2. Location (street address): 635 Kenolio Road Kihei, HI 96753
- 3. Land Use Designations:
 - State Land Use District: Parcel 157 & 158: Urban
 - Community Plan: Parcel 157: "B" Business/Commercial Parcel 158: "MF" Multi-Family
 - County Zoning: Parcel 157: R-1 and A-1 Parcel 158: A-1 Apartment District
 - Other: SMA
- 4. Description of the existing uses on the Property: Temporary Offices of Betsill Brothers Construction, Inc.
- 5. Description of the proposed uses on the Property: Construction of 166-unit Multi-Family Residential Development

The Applicant is responsible for ensuring accuracy of the information.

Piilani Makai, Inc. / RDD, LLC.

(Owner/Applicant)

(Signature)

635 Kenolio Road Kihei, HI 96753

(Address)

808-874-6613

(Telephone)

Chris Hart and Partners, Inc.

(Agent)

(Signature)

115 N. Market Street Wailuku, HI 96793

(Address)

808-242-1955

(Telephone)

**NOTARIZED AFFIDAVIT
OF PUBLICATION NOTICE OF APPLICATION**

_____, being first duly sworn on oath,
deposes and says that:

a. Affiant is the Applicant for a Special Management Area (SMA) Permit for land
situated at: _____,
TMK: (2) 3-9-01:157, 158.

b. Affiant did on _____, 20____, deposit in the
United States mail, post paid, a copy of a Notice of Filing of Application
with location map, a copy of which is attached hereto as "Exhibit A" and
made a part hereof, addressed to each of the persons identified in the list
of recorded owners and lessees identified as "Exhibit B", attached hereto
and made a part hereof.

Further Affiant sayeth naught:

subscribed and sworn to before me this
_____ day of _____, 20____.

Notary Public, State of Hawaii
My commission expires: _____

LONG RANGE DIVISION – PROJECT DATABASE

PROPOSED PROJECT DATA SUMMARY SHEET

Applicant: Please complete this two (2) sided form. Complete only those items that are appropriate to your application(s). If you have any questions, please contact the **Long Range Planning Division** at 270-7214.

Date:	Project Name (if applicable): Kaonoulu VI
Applicant's Name: Piilani Makai, Inc.	What permits are you applying for? Draft EA, CPA, CIZ, SMA
Property Tax Map Key (TMK) number: (2) 3 -9- 001: 157, 158	Please give us a brief summary of your project, including the existing and proposed uses: Currently the land is the temporary offices of Betsill Brothers Construction, Inc. and will be developed as a 166-unit Multi-Family Development.
Contact Phone Number: 808-874-6613	
E-mail Address:	Developer Name: Piilani Makai, Inc. Property Owner Name: Piilani Makai, Inc./RDD, LLC.

Residential Projects: Single-Family and Multi-Family

1. How many single family units (i.e., individual detached homes) are you building?	0
a. Will accessory dwellings (i.e., ohanas) be permitted? If yes, how many?	0
2. How many multi-family units (i.e., condo, apartment, or townhouse) are you building?	166
3. Are you subdividing your property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
a. If yes, how many <u>buildable</u> lots are your requesting to create?	_____
4. How many acres, or square feet, are at the project site?	8.2 acres
5. If only a portion of the property is going to be used for this project, how many acres or square feet will be used just for the project area?	8.2 acres
6. Will this project require land use amendments? Please check <input checked="" type="checkbox"/> all that apply and indicate the proposed change:	
a. Change in Zoning (CIZ) from: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure	R-1 & A-1 to: A-1
b. Community Plan Amendment from: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure	"B" Business/Comm. to: "MF" Multi-Family
c. State Land Use District Boundary Amendment (DBA) from: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Sure	_____ to: _____
7. Will you be selling any of the units as "affordable" as defined under the Housing and Urban Development guidelines?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Sure
a. If yes, how many of the units, or percentage of units, will fall under this category?	66
8. From the date of filing the application with the Planning Department, how long do you estimate the project to reach complete build-out? Please check <input checked="" type="checkbox"/> one (1) box.	<input checked="" type="checkbox"/> 0 - 5 years <input type="checkbox"/> 6 - 10 years <input type="checkbox"/> 11 - 15 years <input type="checkbox"/> 16 - 20 years <input type="checkbox"/> 21+ years

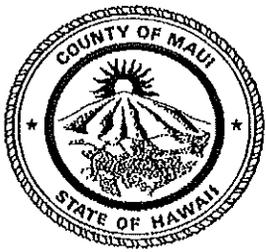
Industrial/Commercial Projects

1. Will this project be used for (please list <u>all</u> that apply by indicating the amount of square footage proposed):	
a. Retail purposes:	_____
b. Office space/lease:	_____
c. Industrial purposes:	_____

Please turn over and complete the other side of this form.



Application
COMMUNITY PLAN AMENDMENT (CPA)



COUNTY OF MAUI
DEPARTMENT OF PLANNING
250 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
TELEPHONE: (808) 270-7735 FAX: (808) 270-7634

APPLICATION TYPE: COMMUNITY PLAN AMENDMENT APPLICATION

DATE: March, 2008 VALUATION: \$25,000,000.00

PROJECT NAME: Kaonoulu Phase VI

PROPOSED DEVELOPMENT: The proposed project is a multi-family residential development consisting of 166 units. The development will include 1, 2, and 3 bedroom units.

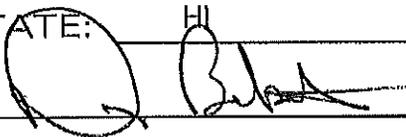
TAX MAP KEY NO.: (2) 3-9-01:157 CPR/HPR NO.: _____ LOT SIZE: 5.1 acres

PROPERTY ADDRESS: Kenolio Road

OWNER: Piilani Makai, Inc. PHONE: (B) 808-874-6613 (H) _____

ADDRESS: 635 Kenolio Road

CITY: Kihei STATE: HI ZIP CODE: 96753

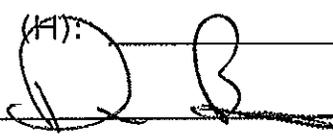
OWNER SIGNATURE: 

APPLICANT: Piilani Makai, Inc.

ADDRESS: 635 Kenolio Road

CITY: Kihei STATE: HI ZIP CODE: 96753

PHONE (B): 808-874-6613 (H): _____ FAX: 808-879-5159

APPLICANT SIGNATURE: 

AGENT NAME: Chris Hart and Partners, Inc.

ADDRESS: 115 N. Market Street

CITY: Wailuku STATE: HI ZIP CODE: 96793

PHONE (B): 808-242-1955 (H): _____ FAX: 808-242-1956

EXISTING USE OF PROPERTY: Temporary Offices of Betsill Brothers Construction, Inc.

CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: "B" Business/Commercial ZONING DESIGNATION: R-1 and A-1

OTHER SPECIAL DESIGNATIONS: Special Management Area SMA

**COMMUNITY PLAN AMENDMENT
REQUIRED SUBMITTALS**

- App.A 1. Evidence that the applicant is the owner or lessee of record of the real property to be reclassified.
- N/A 2. A notarized letter of authorization from the legal owner if the applicant is not the owner.
- App.G 3. List of owners and lessees of real property within a 500 feet radius of the subject parcel should be obtained from the most current available list at the Maui County Department of Finance, Real Property Tax Division. This list should include the tax map key numbers and the names and addresses of all owners, lessees, and members of the Board of Directors or managing agents to be notified, including a map drawn to scale, clearly defining the 500 feet notification boundary and the parcels affected.
- pg 31-32 4. Original and one (1) copy of the policies and objectives of the general plan applicable to the application and an analysis as to conformance to these polices and objectives.
- Fig.1 5. Original and one (1) copy of a locational map identifying the site, adjacent roadways and identifying landmarks.
- Enclosure 6. Legal description and mylar map drawn to scale of the subject property in a format prescribed by the department of planning.
- See Report 7. Original and one (1) copy of a draft environmental assessment including, but not limited to, the following:
- a. Identification of applicant or proposing agency;
 - b. Identification of approving agency which shall be the department of planning;
 - c. Identification of agencies consulted;
 - d. General description of the action's technical, economic, social, and environmental characteristics;
 - e. Summary description of the affected environment, including suitable and adequate location and site map;
 - f. Identification and summary of major positive and negative impacts and alternatives considered, if any;
 - g. Proposed mitigation measures, if any;
 - h. Any other information the department may require in its consideration of every phase of the proposed action, the expected consequences, both primary and secondary, and the cumulative as well as the short term and long-term effects of the action in making a determination; and
 - i. Compliance with Chapter 200, Title 11, State Department of Health rules.
- See Enclosed Check 8. A non refundable filing fee (See Fee schedule, Table A); payable to *County of Maui, Director of Finance.*

After reviewing the application submittals for suitability for transmittal to agencies, the Planning Department will notify the applicant of the need to provide additional copies.

NOTARIZED AFFIDAVIT OF MAILING

_____, being first duly sworn on oath, deposes and says that:

- a. Affiant is the applicant for a _____ Community Plan Amendment
for land situated at _____ 635 Kenolio Road Kihei, HI 96753
TMK: _____ (2) 3-9-01:157

- b. Affiant did on _____, 20____, deposit in the United States mail, post paid, by certified or registered mail and delivery to addressee, a copy of a Notice of Hearing, a copy of which is attached hereto as "Exhibit A" and made a part hereof, addressed to each of the persons identified on "Exhibit B," attached hereto and made a part hereof.

- c. Thereafter there was returned to the Office of Affiant the United States Post Office Certified or Registered Mail Receipts, which are attached hereto as "Exhibit C" and made a part hereof.

Further Affiant sayeth naught:

DATE:

TO: Owners/Lessees

Please be informed that the undersigned has applied to the _____
Planning Commission of the County of Maui for a Community Plan Amendment at the
following parcel(s):

- a. Tax Map Key: (2) 3-9-01:157 Acreage 5.171 acres
- b. Street Address 635 Kenolio Road
- c. State Land Use Designation: Urban
- d. Community Plan Amendment
From "B" Business/ Commercial To "MF" Multi-Family
- e. Proposed Development: 166 unit Multi-Family Residential Development

THIS SECTION TO BE COMPLETED BY THE PLANNING DEPARTMENT:

Public Hearing Date: _____

Time: _____

Place: _____

Attached please find a map identifying the location of the specific parcel(s) being considered in the request for Community Plan Amendment.

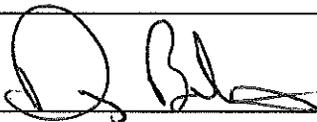
The hearing is held under the authority of Chapter 92, Hawaii Revised Statutes, Title 19 of the Maui County Code, and the appropriate Commission rules.

Testimony relative to this request may be submitted in writing prior to the hearing to the appropriate Planning Commission c/o the Maui Planning Department, 250 South High Street, Wailuku, Maui, Hawaii 96793, or presented in person at the time of the public hearing.

Information relative to the application is available for review at the Planning Department, 250 South High Street, Wailuku, Maui, Hawaii, Telephone (808) 270-7735; toll free from Molokai 1-800-272-0117, Extension 7735; and toll free from Lanai 1-800-272-0125, Extension 7735.

Piilani Makai, Inc.

Name of Applicant



Signature

635 Kenolio Road Kihei, HI 96753

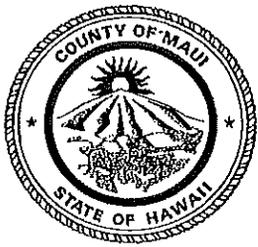
Address

() 808-874-6613

Telephone



Application
CHANGE IN ZONING (CIZ)



COUNTY OF MAUI
 DEPARTMENT OF PLANNING
 250 SOUTH HIGH STREET
 WAILUKU, MAUI, HAWAII 96793
 TELEPHONE: (808) 270-7735 FAX: (808) 270-7634

APPLICATION TYPE: CHANGE IN ZONING APPLICATION

DATE: March 2008 VALUATION: \$ \$25,000,000.00

PROJECT NAME: Kaonoulu Phase VI

PROPOSED DEVELOPMENT: The proposed project is a multi-family residential development consisting of 166 units. The development will include 1, 2, and 3 bedroom units.

TAX MAP KEY NO.: (2) 3-9-01:157 CPR/HPR NO.: _____ LOT SIZE: 5.1 acres

PROPERTY ADDRESS: Kenolio Road

OWNER: Piilani Makai, Inc. PHONE: (B) 808-874-6613 (H) _____

ADDRESS: 635 Kenolio Road

CITY: Kihei STATE: HI ZIP CODE: 96753

OWNER SIGNATURE: _____

APPLICANT: Piilani Makai, Inc.

ADDRESS: 635 Kenolio Road

CITY: Kihei STATE: HI ZIP CODE: 96753

PHONE (B): 808-874-6613 (H): _____ FAX: 808-879-5159

APPLICANT SIGNATURE: _____

AGENT NAME: Chris Hart and Partners, Inc.

ADDRESS: 115 N. Market Street

CITY: Wailuku STATE: HI ZIP CODE: 96793

PHONE (B): 808-242-1955 (H): _____ FAX: 808-242-1956

EXISTING USE OF PROPERTY: Temporary Offices of Betsill Rothers Construction, Inc.

CURRENT STATE LAND USE DISTRICT BOUNDARY DESIGNATION: Urban

COMMUNITY PLAN DESIGNATION: "B" Business/Commercial ZONING DESIGNATION: R-1 and A-1

OTHER SPECIAL DESIGNATIONS: Special Management Area SMA

GENERAL SUBMITTAL REQUIREMENTS

CIZ

Application 1.

Application Form (original + 1 copy)

Page

App.A

2. Documents which identify the owner of the subject parcel of land.

NA

3. If the applicant is not the owner of the subject parcel, then a notarized written authorization for the application by the owner shall be included. Said authorization shall include the owner's name, address and telephone number.

Pg.1

4. Agent's name, address, and telephone numbers, if applicable.

Fig.1

5. Location Map identifying the site, adjacent roadways and identifying landmarks (8 1/2" x 11" format.)

App.G

6. List of owners and lessees of record of real property located within a 500-foot radius of the subject parcel. The list shall be compiled from the most current list available at the Real Property Tax Division of the Department of Finance at the time of filing of the application with Director of Planning.

This list shall include the names and addresses of each owner and recorded lessees by tax map key. A map drawn to scale which clearly identifies the 500-foot boundary surrounding the subject parcel and the parcels within the boundary shall be included.

See: Report 7.

A report addressing the following (Original + 1 copy)

- a. Policies and objectives of the General Plan; the provisions of the community plan applicable to the application; the provisions of the applicable district; and an analysis of the extent to which the application, if granted, conforms to these provisions, objectives and provisions.
- b. Detailed land use history of the parcel which includes, but is not limited to former and existing State and County land use designations, violations and uses.
- c. Preliminary archaeological and historical data and comments from the Department of Land and Natural Resources and the Office of Hawaiian Affairs of the State of Hawaii. If applicable, a preservation/mitigation plan which has been reviewed and approved by the Department of Land and Natural Resources and the Office of Hawaiian Affairs.

existing on the subject parcel and any proposed alterations to these patterns.

- l. Identification of all meetings held between the applicant and any community or residential group which may be impacted by the applicant's request, the issues raised by these meetings and any measures proposed by the applicant to deal with or to mitigate these issues.
- m. Development Schedule.
- n. Operations and management of the proposed use which includes but is not limited to number of employees, proposed employee housing plan, hours of operation, fees charged to residents and visitors and provisions for off-site parking.
- o. Identification of traditional beach and mountain access trails and additional trails which may be required for public access to the beaches and mountains and, if applicable, preservation/mitigation plan and comments from the Department of Land and Natural Resources and the Office of Hawaiian Affairs.
- p. Identification and assessment of chemicals and fertilizers used including, but not limited to detailing effects upon surface, underground and marine water resources and neighboring properties and surrounding flora and fauna. If applicable, a mitigation plan and maintenance program and schedule and comments from the Departments of Health and Land and Natural Resources of the State of Hawaii, the U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency.

Fig.10 8. Photographs of the subject site, existing structures and surrounding area which are dated.

Fig.11 9. Schematic Site Development Plans, if applicable, drawn to scale, which identify the following (rendered copy and 1 blueprint set):

- App.H
- a. Property lines and easements with its dimensions and area calculations;
 - b. Location, size, spacing, setbacks and dimensions of all existing and proposed building, structures, improvements, and uses;
 - c. Existing and proposed building elevations, sections, floor plans, and site sections which clearly define the character of the development;
 - d. Topographic information showing existing features and conditions and proposed grading;
 - e. Existing and proposed landscaping which depicts open spaces, plantings and trees;

- f. Existing and proposed roadways and accesses to the project and parking layout with dimensions; and
- g. Shoreline, shoreline setback lines, stream and other setback lines.

NOTE: For Project Master Plan Review, the development plans shall also comply with Maui County Code, Section 19.510.080.C.

N/A 10. Any other information as may be required by Director of Planning or the appropriate planning commissions of the County.

See: attached 11. **Non-refundable filing fee** payable to the *County of Maui, Director of Finance*.

- a. Change in Zoning (see Fee Schedule, Table A)
- b. County Special Use Permit (see Fee Schedule, Table A)
- c. Project Master Plan Review (see Fee Schedule, Table A)

See: next page 12. Notice of Filing of Application (Attachment A)

Follows Notice of Filing 13. Notarized Affidavit of Mailing of Notice and Application (Attachment B)

- See: Enclosures 14. For Change in Zoning, the following additional information is required:
- a. Legal metes and bounds description of the subject parcel; and
 - b. Mylar map drawn to scale (8 1/2" x 14" format) of the subject parcel (Attachment C).

An original plus one copy of Items 1-10 shall be submitted for review by the Planning Department for suitability for transmittal to public agencies for review and comment. Upon deeming the application suitable for agency review, the Planning Department will contact the applicant to request the additional number of application packets needed for agency review.

ATTACHMENT A

TO:

DATE:

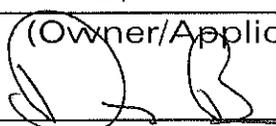
NOTICE OF FILING OF APPLICATION

Check appropriate Line:

- CHANGE IN ZONING (From R1 Residential and A-1 Apt. to A-1 Apartment)
- COUNTY SPECIAL USE
- PROJECT MASTER PLAN

Please be advised that the undersigned will be applying to the Department of Planning of the County of Maui for the above-referenced application(s) for the following parcel(s):

1. Tax map Key No.: (2) 3-9-01:157
(NOTE: Please attach an 8 1/2" x 14" location map)
2. Location (Street Address): 635 Kenolio Road Kihei, HI 96753
3. Existing Land Use Designations:
 - a. State Land Use District: Urban
 - b. Community Plan Designation: "B" Business Commercial
 - c. County Zoning: R-1 Residential District and A-1 Apartment District
4. Description of the Existing Uses on Property: Temporary Offices of Betsill Brothers Construction, Inc.
5. Description of the Proposed Uses on Property: Multi-family Residential Development of 166 units.

By: Piilani Makai, Inc.
 (Owner/Applicant)

 (Signature)
635 Kenolio Road
Kihei, HI 96753
 (Address)
808-874-6613
 (Telephone)

Chris Hart & Partners, Inc.
 (Agent)

 (Signature)
115 N. Market Street
Wailuku, HI 96793
 (Address)
808-242-1955
 (Telephone)

ATTACHMENT B

NOTARIZED AFFIDAVIT OF MAILING OF
NOTICE OF APPLICATION

_____, being first duly sworn, on oath, deposes
and says:

1. Affiant is the applicant for a Change in Zoning for
land situate at 635 Kenolio Rd. Kihei, HI 96753, TMK No.: (2) 3-9-01:157.
2. Affiant did on _____, _____, deposit in the United States
mail, postage prepaid, a copy of a Notice of Filing of Application with
location map, a copy of which is attached hereto as "Exhibit A" and
made a part hereof, addressed to each of the persons identified in the list
of recorded owners and lessees identified as "Exhibit B," attached hereto
and made a part hereof.

Further, Affiant sayeth naught.

Subscribed and sworn to before me this
_____ day of _____,
_____.

Notary Public, State of Hawaii
My commission expires: _____



Report



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A. PURPOSE OF THE REQUEST	1
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I. PROJECT INFORMATION

A. PURPOSE OF THE REQUEST

The purpose of this Environmental Assessment (EA) is to analyze the potential impacts related to the construction of Kaonoulu Phase VI, a 166- unit Multi-family development. The proposed 8.2-acre project site consists of 2 parcels and is located in Kihei, adjacent to the Piilani Highway at the intersection of Kaonoulu Road. An extension of Kenolio Road will access the project site. In addition to the EA, the applicant is requesting a Change In Zoning (CIZ), Community Plan Amendment (CPA) and a Special Management Area (SMA) Use Permit. **This Environmental Assessment is triggered by the request for a Community Plan Amendment to “Down Designate” Parcel 157 from “B” Business/Commercial to “MF” Multi-Family.**

B. PROJECT PROFILE

Proposed Project: Kaonoulu Phase VI Multi-family Residential Project

Project Address: Kenolio Road
Kihei, Maui, Hawaii

Project TMK: (2) 3-9-01:157, 158

Parcel Size: 8.2 acres combined

Existing Land Use: Temporary Offices of Betsill Brothers Construction, Inc. & Materials Storage site.

Access: Kenolio Road

C. IDENTIFICATION OF THE APPLICANT/OWNER

Land Owner: Piilani Makai, Inc. / RDD LLC.
Address: 635 Kenolio Road
Kihei, HI 96753



Phone: Business: (808)-874-6613
Facsimile: (808)-879-5159

Contact: Dennis Boehlje

D. CONSULTANTS

Land Use Planner & Landscape Architect: Chris Hart & Partners, Inc.
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Phone: Voice: (808) 242-6861
Facsimile: (808) 244-7287

Contact: Kirk Tanaka

Traffic Engineer: Phillip Rowell and Associates
47-273 "D" Hui Iwa Street
Kaneohe, HI 96744

Phone: Voice: (808) 239-8206
Facsimile: (808) 239-4175

Contact: Mr. Phillip Rowell, P.E.

E. ACCEPTING AGENCY

Agency: Maui Planning Commission
C/o Department of Planning, County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

Phone: Voice: (808) 270-7735
Facsimile: (808) 270-7634

Contact: Mr. Jeffrey Hunt, AICP, Planning Director



F. MAJOR LAND USE, DEVELOPMENT AND CONSTRUCTION APPROVALS

1. Subdivision approval from the Department of Public Works (DPW), County of Maui.
2. Grading/Grubbing Permit approval from the DPW.
3. Building, Electrical, and Plumbing Permits for future structures from the DPW.
4. Special Management Area Use Permit by the Maui Planning Commission, via the Department of Planning.

G. PRE-CONSULTED AGENCIES & PRIVATE INTERESTS

COUNTY OF MAUI

1. Department of Planning
2. Department of Public Works

STATE OF HAWAII

1. Department of Land & Natural Resources, Historic Preservation Division

OTHER

1. Kihei Community Association

Note: Chris Hart and Partners distributed Early Consultation Letters to various Federal, State, and County agencies requesting comments on the proposed project. Comment letters from responding agencies can be found in Appendix I.



II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

A. PROPERTY LOCATION

The project site is located makai of the Piilani Highway in Kihei. The project site includes Parcel 157 (5.171 acres) and Parcel 158 (3.103 acres) and is approximately 8.274 acres in area. It is bounded on the mauka side by Piilani Highway, and on the makai side by an undeveloped road, which is an extension of Kenolio Road. The property is located at TMK's: (2) 3-9-01: 157, 158 in Kihei, Maui Hawaii. (See: Figure No. 2 Tax Map Key)

B. EXISTING LAND USE

Parcels 157 and 158 are both in the Urban State Land Use District. Parcel 157 is Maui County zoned A-1 Apartment and R-1 Residential Districts. Parcel 158 is zoned A-1 Apartment District. The proposed Multi-family development is an appropriate use for the Urban State Land Use District. The proposed CIZ and CPA will bring consistency to the proposed project site.

The project site is primarily vacant with boulders, trees, shrubs and grasses. A portion of the project site is being used for Betsill Brothers Construction, Inc. temporary office buildings and permitted construction material storage.

C. LAND USE DESIGNATIONS

State Land Use Classification: Urban (Parcel 157,158)

Kihei-Makena Community Plan: "B" Business/ Commercial (Parcel 157)
"MF" Multi-Family (Parcel 158)
(See: Figure No. 4, Community Plan)

County Zoning: R-1 Residential District and A-1 Apartment District (Parcel 157)
A-1 Apartment District (Parcel 158)
(See: Figure No. 5, County Zoning)

Flood Zone Designation: A, A4, B and C Minimal flooding
(See: Figure No. 6, Flood Map)

Special Designations: Special Management Area (SMA)
(See: Figure No. 9, SMA Map)



D. DESCRIPTION OF PROPOSED ACTION

The proposed project is a multi-family; residential development that will include construction of a total of 166 units with necessary supporting infrastructure. The development will result in fifty-six 1-bedroom units, eighty-four 2-bedroom units and twenty-six 3-bedroom units. (See: Figure No. 3, Site Plan). The proposed project will comply with the Residential Workforce Housing Ordinance by providing the required amount of units at an affordable price. Associated improvements include paved roadways; concrete curbs, gutters and sidewalks; onsite drainage systems, water system, sewer system, underground utilities, landscape planting, and offsite roadway improvements along Kenolio Road fronting the project site.

The proposed Change in Zoning from R-1 Residential and A-1 Apartment to A-1 Apartment for Parcel 157 and Community Plan Amendment from “B”, Business/Commercial to “MF”, Multi-Family will result in consistent land use designations. Parcel 158 does not require a CIZ or CPA.

E. ALTERNATIVES

The following alternatives were considered in preparation of this Draft Environmental Assessment:

1. No Action: This alternative would forego improvements to the project.

Positive Impacts: By leaving the property in its existing undeveloped state, the short-term impacts associated with construction would be avoided. Maintaining the site as undeveloped would reduce energy consumption, and the number of automobiles in the immediate area.

Negative Impacts: The County would not realize higher tax revenues associated with residential development of the property. Businesses and services in the Kihei area and on the island would not benefit from spending by occupants of the development on the property, if the “No Action” plan were followed. The residents of Kihei will be limited in their options for affordable housing. The high carrying costs of the property would be a burden for the landowner to absorb for an indefinite period of time and likely result in the sale of the property.

2. Deferred Action: This alternative would delay development to a later time.

Positive Impacts: There would be no immediate construction-related impacts associated with development.



Negative Impacts: A delay in commencing development would result in uncertainties related to market conditions, interest rates, construction costs, and availability of infrastructure. These considerations along with the carrying costs of the property would be financially burdensome for the landowner.

3. Alternative Site: This option would require that the applicant find and develop another multi-family residential parcel.

Positive Impacts: The short term and peripheral impacts associated with construction would be avoided.

Negative Impacts: The community of Kihei would lose an opportunity for new affordable housing. The applicant does not own another suitable site and the land costs involved in acquiring a suitable site could be high.

3A. Alternative Use: The development of Parcel 57 as “B” Business/Commercial was previously proposed and the community opposed the use. The community strongly felt that the “B” Business/Commercial use was not compatible with the existing, adjacent residential land use. Therefore the “MF” Multi-family designation is proposed.



III. HRS CHAPTER 343 SIGNIFICANCE CRITERIA

A finding of no significant impact (FONSI) is anticipated and therefore an Environmental Impact Statement will not be required for the proposed action. This determination has been made in accordance with the following significance criteria specified in Section 11-200-12 of the Department of Health rules relating to Environmental Impact Statements:

- A. *Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.*

Xamanek Researchers, LLC, conducted an Archaeological Field Inspection on the project site in October 2006. There were no significant material cultural remains or intact cultural layers noted during the surface inspection and subsurface testing of this previously disturbed parcel. (**See:** Appendix D)

- B. *Curtails the range of beneficial uses of the environment.*

The neighboring properties are in residential use and the proposed Multi-family residential development does not introduce a new use to the area. The project will not curtail the range of beneficial uses of the environment in the project vicinity.

- C. *Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.*

The proposed Multi-family residential project is being developed in compliance with the State of Hawaii's long-term environmental goals. As documented in this report, adequate mitigation measures will be implemented to minimize the potential for negative impacts to the environment.

- D. *Substantially affects the economic or social welfare of the community or state.*

In the short term, the proposed project will result in increased construction employment and business opportunities. As documented in this report, there will be no significant negative long-term impacts to the socio-economic environment.

In the long term, the proposed project will provide market and Workforce Housing options in Kihei, an area in critical need of an affordable housing supply.

- E. *Substantially affects public health.*



There are no special or unique aspects of the project, which will have an impact on public health.

- F. *Involves substantial secondary impacts, such as population changes or effects on public facilities.*

The proposed project will not lead to a substantial impact on population levels due to its relatively small scale. Additionally, as documented in this report, the project will not result in a significant negative impact on public facilities.

- G. *Involves a substantial degradation of environmental quality.*

Mitigation measures will be implemented during construction to minimize negative short-term impacts such as soil erosion and sedimentation. The project design will incorporate a drainage system that will minimize degradation of the environmental quality. (See: Appendix C)

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

The project does not involve a commitment for larger actions on behalf of the applicant or any public agency. In terms of cumulative impacts, the project site is situated within the State Urban District and adjacent to existing residential areas. Infrastructure and utilities are adequate to service the proposed project. Therefore, the project is not expected to result in cumulative negative impacts on the immediate environment.

- I. *Substantially affects a rare, threatened, or endangered species, or its habitat.*

There are no known rare, threatened, or endangered species or habitat at the project site.

- J. *Detrimentially affects air or water quality or ambient noise levels.*

As documented, there will be short-term impacts on air and water quality and ambient noise levels during construction; however, mitigation measures will be employed to minimize these impacts. Adverse long-term impacts are not anticipated.

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



The project site is located within Flood Zones A, A4, B and C. Flood Zone A is designated as areas of 100-year flood; base flood elevations and flood hazard factors not determined. Flood Zone A4 is designated as areas of 100-year flood; base flood elevations and flood hazard factors determined. Flood Zone B is designated as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. Flood Zone C is designated as areas of minimal flooding. (See: Figure No. 6 Flood Map)

Any structures located within a flood zone other than Flood Zone C will be required to meet the County's requirement for development within a flood zone.

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

As discussed in Section III.A.8, the proposed project is located in Kihei, makai of the Piilani Highway and is not expected to obstruct major view corridors as identified by the Maui Coastal Resources Study. (See: Figure No. 12 Maui Coastal Resources Study Map)

- M. *Requires substantial energy consumption.*

Construction of proposed Multi-family project will comply with Chapter 16.26.1300, "Energy Conservation", Maui County Code. Where practical and economically feasible, the proposed structure will meet or exceed the building efficiency standard for the State of Hawaii.



IV. DESCRIPTION OF THE EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Land Use

Existing Conditions. The proposed project site is located makai of the Piilani Highway in Kihei, Maui, Hawaii, TMK's: (2) 3-9-01:157, 158. The Kulanihakoi gulch is south of Parcel 158, and continues to the coast. (See: Figures No. 1 Regional Location & No. 2 Tax Map Key).

The following is a land use history of the proposed project site, Parcel 157 and Parcel 158:

In 1990 a Maui County Change in Zoning (CIZ) from Agricultural District to R-1 Residential District and A-1 Apartment District was approved for a 14.963-acre parcel TMK: (2) 3-9-001: Portion of 149. The proposed project site (Parcel 157 and Parcel 158) is a portion of the 14.963-acre parcel. (See: Figure No. 13 Land Zoning Map No. 543)

In August 1998 The proposed project site (Parcel 157 and Parcel 158) was part of a large lot subdivision that was granted final subdivision approval. The subdivision resulted in seven (7) developable lots, a roadway lot and drainage lot. The proposed project site is identified as Lots 1 and 2 in this map. (See: Figure No. 14 Large Lot Subdivision)

Prior to 1998, the 5.171-acre parcel (TMK No. (2) 3-9-001:157) had Community Plan designations of multi-family and single-family, consistent with the zoning on the property. During discussions leading to the 1998 update of the Kihei-Makena Community Plan, the 5.171 acre parcel was linked to a 7-acre parcel fronting on South Kihei Rd. (TMK No. (2) 3-9-001:162), which the land owner also owned. The County wanted to designate the 7-acre parcel from multi-family to park. The land owner agreed to allow the change in the designation of the 7-acre parcel to park in exchange for a community plan business designation on the 5.171-acre parcel to allow construction of a small neighborhood shopping center.

The County in the Kihei-Makena Community Plan Update adopted the Community Plan changes for both properties in 1998. But in 2001, a change-in-zoning application to



bring the 5.171-acre parcel into consistency with the community plan was denied by the County Council in the face of community opposition to the business designation. The Planning Committee of the County Council, then referred the matter back to the Maui Planning Commission to restore the community plan residential designations on the 5.171-acre subject site, but failed to request to restore the community plan multi-family designation on the 7-acre parcel now designated for a park.

The land owner's subsequent discussions with the County were that since the 7-acre parcel park designation had been linked and exchanged for the 5.171 acre parcel business designation that both properties would therefore be returned to their pre-1998 community plan designations. The Maui Planning Commission returned a Community Plan residential designation recommendation to the Council for the subject 5.171-acre parcel in March 2002. This request languished at the Planning Committee, as did the expected referral to the Maui Planning Commission on the 7-acre parcel. The result of the inaction is that the landowner is left with a property with inconsistency between zoning and community plan designations.

Repeated requests were made in 2002, 2003, 2004 by the land owners to the Planning Committee to schedule the two community plan amendments concurrently, at the Planning Committee, but no further action was taken on either. In 2004 a ruling was issued from the Corporation Counsel's office that both community plan amendments would require an environmental assessment prepared at the landowners' expense. Owners objected to such determination as the 7-acre parcel's Park designation was a County initiated action. The landowner did elect to proceed with the necessary Environmental Assessment on the subject 5.171-acre parcel.

The land owner of the 5.171 acre parcel desires to return to the original pre-1998 community plan residential designations for the subject property, in light of the strong negative neighborhood reaction against the 2001 change-in-zoning request to match the community plan Business designation. Thus, the landowner is requesting the community plan amendment to return to the community's pre-1998 desires for the subject property.

Parcel 157 is currently in the Urban State Land Use District, and is County Zoned R-1 Residential District and A-1 Apartment District. The Kihei-Makena Community Plan designates the parcel as "B", Business/Commercial.

Parcel 158 is currently in the Urban State Land Use District, and is County Zoned A-1 Apartment District. The Kihei-Makena Community Plan designates the parcel as MF,



Multi-Family. (**See:** Figure Nos. 3 State Land Use Map, 4 Kihei-Makena Community Plan, and 5 Maui County Zoning Map)

The following is a description of zoning, community plan designations, and existing land uses adjacent and in close proximity to the subject property:

North:	<u>Zoning:</u> R-1 Residential <u>Community Plan:</u> Single Family (SF) <u>State Land Use:</u> Urban District Existing uses. Single-Family Residences
South:	<u>Zoning:</u> Open Space (Kulanihakoi gulch) <u>Community Plan:</u> Multi-Family (MF) <u>State Land Use:</u> Agricultural District Existing uses. Open Space
East:	<u>Zoning:</u> M-1 Light Industrial <u>Community Plan:</u> Agricultural (A) and Light Industrial (LI) <u>State Land Use:</u> Agricultural District Existing uses. Piilani Highway
West:	<u>Zoning:</u> R-1 Residential <u>Community Plan:</u> Single-Family (SF) <u>State Land Use:</u> Urban District Existing uses. Single-Family residences

Potential Impacts and Mitigation Measures. The proposed Change in Zoning from R-1 Residential and A-1 Apartment to A-1 Apartment for Parcel 157 and Community Plan Amendment from B, Business/Commercial to MF, Multi-Family will result in consistent land use designations. (**Note:** Parcel 158 does not require a CIZ or CPA).



2. Topography and Soils

Existing Conditions. The project site elevation ranges from 47 feet above mean sea level at the northeastern corner of the site to 16 feet at the southwestern corner, averaging approximately 2.8%. There are two gulches, which affect the project site. The first is an unnamed gulch, which conveys runoff across Piilani Highway from double 102-inch culverts. This gulch starts near the intersection of Kaonoulu Street and Piilani Highway and traverses diagonally across the site and the North-South Collector Road and discharging into Kulanihakoi Gulch.

The second gulch is Kulanihakoi Gulch, which is a major drainage way. It flows south of the southern boundary of the site from an existing bridge at Piilani Highway consisting of four existing 6'-0" x 4'0" concrete box culverts at its crossing on South Kihei Road. As part of the Kaonoulu Estates- Phase IV Subdivision, a portion of Kulanihakoi Gulch was improved with a boulder lining and geotextile invert.

According to the *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*, prepared by the United States Department of Agriculture, Soil Conservation Service, August 1972, the soil classification found on the project site are Alae sandy loam (AaB) and the Waiakoa extremely stony silty clay loam (WID2). (See: Figure No. 7 Soils Map)

AaB: This soil is contains slopes from 0 to 3 percent. Runoff is slow and the erosion hazard is slight. Most of this soil is used for sugar cane and pasture.

WID2: This soil contains slopes from 3 to 7 percent. Runoff erosion is medium and the erosion hazard is severe. This soil is often eroded and stones cover 3 to 15 percent of the surface. This soil is used for pasture and wildlife habitat.

Potential Impacts and Mitigation Measures. The proposed project will require installation of a concrete box culvert from the outlet of the double 102-inch culverts at Piilani Highway, through the project site and connect to the existing 16'-0" x6'-6" concrete box culvert on the site. The proposed concrete box culvert will meander through the site to avoid conflicts with any structures or improvements.

As mentioned, previous construction of Kaonoulu Phase IV resulted in a detention basin with the capacity of 60,000 cubic feet to be used by this proposed Multi-family project. The post development runoff from the project site is estimated to be 23.16 cfs, with an increase of 15.57 cfs over existing conditions. Onsite runoff will be collected by catch



basins located at appropriate intervals along the interior roadways and landscaped areas. Drain lines from the catch basins will convey the runoff to an outlet in Kulanihakoi Gulch. As previously noted there is sufficient storage volume within the existing detention basin for this project. (See: Appendix C Preliminary Engineering and Drainage Report)

The soil types present at the project site have low slope and are adequate for development. Therefore the current soil conditions found at the project site are adequate for the proposed Multi-family development.

3. Flood and Tsunami Zone

Existing Conditions. According to Panel Number 150003 0265 C of the Flood Insurance Rate Map (FIRM) prepared by the United States Federal Emergency Management Agency with a revised date of May 8, 2003, the project site is situated in Flood Zones A, A4, B and C. (See: Figure No. 6, Flood Insurance Rate Map). Flood Zone A is designated as areas of 100-year flood; base flood elevations and flood hazard factors not determined. Flood Zone A4 is designated as areas of 100- year flood; base flood elevations and flood hazard factors determined. Flood Zone B is designated as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. Flood Zone C is designated as areas of minimal flooding.

Potential Impacts and Mitigation Measures. The portion of the project area within a Flood Zone other than C will be constructed as required by Chapter 19.62 “Flood Hazard Areas” of the Maui County Code (MCC).

4. Terrestrial Biota (Flora and Fauna)

Existing Conditions. The site is mostly covered with buffelgrass, various shrubs, Kiawe trees and exposed rock piles. Parcels 157 and 158 have been graded, limiting the amount of plants and animals present on the subject parcels.

Potential Impacts and Mitigation Measures. There are no known significant habitats of rare, endangered or threatened species of flora and fauna located on the subject property. Thus, rare, endangered, or threatened species of flora and fauna will not be impacted by the proposed project.



5. Air Quality

Existing Conditions. Air quality refers to the presence or absence of pollutants in the atmosphere. It is the combined result of the natural background and emissions from many pollution sources. The impact of land development activities on air quality in a proposed development's locale differs by project phase (site preparation, construction, occupancy) and project type. In general, air quality in Kihei is considered relatively good. Non-point source emissions (automobile) are not significant to generate a high concentration of pollutants. The relatively high quality of air can also be attributed to the region's exposure to wind, which quickly disperses concentrations of emissions. The Kihei area is currently in attainment of all criteria pollutants established by the Clean Air Act, as well as, the State of Hawaii Air Quality Standards.

Potential Impacts and Mitigation Measures. Air quality impacts attributed to the proposed project could include dust generated by the short-term construction related activities. Site work such as grading and building construction, for example, could generate airborne particulate. Adequate dust control measures that comply with the provisions of Hawaii Administrative Rules, Chapter 11-60.1, "Air Pollution Control," Section 11-60.1-33, Fugitive Dust, will be implemented during all phases of construction. Some of these measures will include:

- Providing adequate water source on site prior to start-up of construction activities.
- Landscape planting and rapid covering of bare areas, including slopes, beginning with the initial grading phase.
- Controlling of dust from shoulders, project entrances, and access roads.
- Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.
- Controlling of dust from debris hauled away from project site.



6. Noise Characteristics

Existing Conditions. The noise level is an important indicator of environmental quality. In an urban environment, noise is due primarily to vehicular traffic, air traffic, heavy machinery, and heating, ventilation, and air-conditioning equipment. Ramifications of various sound levels and types may impact health conditions and an area's aesthetic appeal. Noise levels in the vicinity of the project area are generally low. Traffic noise from Piilani Highway is the predominant source of background noise in the vicinity of the subject property.

Potential Impacts and Mitigation Measures. In the short-term, the proposed project could generate some adverse impacts during construction. Noise from heavy construction equipment, such as material-carrying trucks and trailers, would be the dominant source of noise during the construction period. To minimize construction related impacts to the surrounding neighbors, the developer will limit construction activities to normal daylight hours, and adhere to the Department of Health's Administrative Rules, Chapter 11-46, Community Noise Control." In the longer-term, the proposed project should not significantly impact existing noise conditions in the area due to the existing Piilani Highway traffic noises.

7. Archaeological/Historical/Cultural Resources

Existing Conditions.

Xamanek Researchers, LLC, conducted an Archaeological Field Inspection on the project site in October 2006. There were no significant material cultural remains or intact cultural layers noted during the surface inspection and subsurface testing of this previously disturbed parcel. Fill in tested portions of the study area ranged from 50 to over 100 cm in thickness. (See: Appendix D Archaeological Field Inspection)

Gillian Engledow conducted a Cultural Impact Assessment of the project site and surrounding area in April 2007. The primary cultural feature in the area is the Ko'ie'ie Fishpond, one-half mile makai of the project site. The Ko'ie'ie Fishpond's initial construction date is unknown, but has been rebuilt several times over the last few centuries. The Fishpond is currently collapsed. The cultural study of the site found no signs of permanent habitation or agriculture on the project site. (See: Appendix E Cultural Impact Assessment)



Potential Impacts and Mitigation Measures.

Given the level of surface disturbance to the general 8.2 acre Kaonoulu Phase VI study area, as well as the subsurface evidence of previous impact, no further archaeological work appears to warrant for this property at this point in time. (**See:** Appendix D Archaeological Field Inspection)

The Ko'ie'ie Fishpond is currently being restored and offers a cultural and environmental education opportunity to interested people. The proposed action on the subject parcels will not interfere with this restoration effort. Therefore the proposed project will have no adverse impact on any significant historic sites. (**See:** Appendix E Cultural Impact Assessment)

8. Visual Resources

Existing Conditions. The project site is located adjacent to the Piilani Highway in Kihei. The project site lacks ocean views because existing topography of the site and residential structures to the west. The site offers views of Haleakala. Views from individual units may vary due to the location.

Numerous scenic resources have been identified in Kihei, which are identified and discussed in the *Maui Scenic Coastal Resources Study*, by Environmental Planning Associates Inc., August 1990. The resource/ inventory map in this report identifies that no significant scenic resources will be affected by the development of the subject parcel. (**See:** Figure No. 12 Maui Scenic Coastal Resources Map)

Potential Impacts and Mitigation Measures. No unique public scenic resources or adjacent views will be impacted by development as identified in the *Maui Scenic Coastal Resources Study*, 1990 and is not anticipated to significantly impact public view corridors, or the visual character of the site and its immediate environs.



B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Affordable Housing

POPULATION

Existing Conditions.

On March 9, 2007 *The Public Facilities Assessment Update for the County of Maui*, was prepared by R.M. Towill Corporation. The public facilities and services addressed in this study include: education, recreation, libraries, harbors, police, fire, hospitals, elderly care, prisons, airports, solid waste, and emergency services.

In 2000 the island of Maui had a population of 129,471 and the Kihei-Makena region had a population of 22,870. From 2000 to 2005, the resident population in the Kihei-Makena region grew from 22,870 to 25,609, representing a 9.35% increase.

Potential Impacts and Mitigation Measures.

The Public Facilities Assessment Update for the County of Maui provides population projections for the Kihei-Makena region. The population projections were forecast by the Maui County Planning Department. The population data were developed in increments of 5 years starting with 2000. The projections below show the resident population of the Kihei-Makena Community Plan region.

Year	Population
2000	22,870
2005	25,609
2010	28,114
2015	30,597
2020	33,227
2025	35,962
2030	38,757

The proposed Multi-family development will moderately increase the population of the immediate Kihei area. The proposed multi-family development will provide affordable and market rate housing to accommodate the foreseeable growth expected in the Kihei-Makena Region.

AFFORDABLE HOUSING



Existing Conditions. In December 2006 the County of Maui passed a Residential Workforce Housing Policy (RWHP), Chapter 2.96, Maui County Code. Any residential project that results in the creation of 5 or more units would trigger the requirements of the RWHP. Based on location and type of units proposed (multi-family), we assume that the proposed units will have a market value less than \$600,000 per unit, therefore current legislation requires that 40 percent of new units be sold or rented as workforce units, or that some in-lieu fee is paid. The in-lieu fee is adjustable, based on interest rates, and can be reduced if delivered in partnership with a non-profit, affordable housing project. At present, the in lieu fee is approximately \$200,000 per workforce housing unit owned, while partnership with a non-profit is approximately \$120,000 per workforce unit owed. In addition, the in-lieu fee is subject to approval by the Maui County Council, while partnership with a non-profit is not.

Potential Impacts and Mitigation Measures. The applicant is committed to building affordable residential units as part of the proposed project. The development will positively impact the Kihei community by providing much needed affordable housing.

2. Economy

Existing Conditions.

With the mild arid climate and expansive sandy beaches, the South Maui economy is strongly oriented towards the visitor industry. The region includes two (2) major resort destination areas on the island, namely the Wailea Resort and Makena Resort. Other visitor accommodations are located near the coastline and Kihei Road. South Maui's economy is also boosted by the Maui Ocean Center Aquarium, the Maui Research and Technology Park and seed corn operations. Currently the subject parcel is used as the temporary office buildings of Betsill Brothers Construction, an employer in the Kihei - Makena Region that creates economic opportunities.

Potential Impacts and Mitigation Measures.

The proposed development will generate construction-phase economic impacts that are short-term effects. The effects include employment, income and expenditure impacts that are created by on-site and off-site construction employment, on-site and off site trade/transportation/service employment, and manufacturing employment in support of construction.

The project may generate long-term economic benefits to the local community including additional tax revenue to the County of Maui. The additional households may utilize and support many of the local goods and services within the immediate area.



C. PUBLIC SERVICES

Recreational Facilities

Existing Conditions.

The South Maui area has a reputation as a recreational destination, particularly for ocean related activities. Ocean sports and recreation available in the South Maui District include swimming, fishing, surfing, scuba diving, snorkeling, sailing and Para-sailing.

State and County beach parks in the South Maui District include the Maipoina Oe Iau Beach Park, Kalama Beach Park, Kamaole Beach Parks, Ulua Beach, Wailea Beach, Polo Beach, Makena Beach Park, and Ahihi-Kinau marine Reserve, including the northern portion of La Perouse Bay.

In 2000, the Kihei-Makena area had 20 County parks or public athletic facilities totaling 114.2 acres. Using park-planning standards, the need for an additional 604.9 acres of park space is forecast due to the expected population growth to 2030 according to the *County of Maui Public Facilities Assessment Update, March 9, 2007*.

Potential Impacts and Mitigation Measures.

The proposed Multi-family development is located in Kihei, a community with existing recreational facilities. The subject parcels are adjacent to Piilani Highway and will not interfere with recreational beach activities or access. The proposed project is not expected to adversely impact existing recreational facilities and services in the region. The proposed project site plan is designed with walking paths and common open space providing recreation space. Additionally, the developer will pay required assessments for public services such as the Parks and Recreation Department Fee. In the Kihei-Makena Community Plan region, the fee is \$17,510.00 per unit in excess of three (3); therefore the total parks fee for the entire development is currently estimated to be \$2,854,130.00. Upon completion, the project will provide increased real property tax revenues to the County of Maui that is used to support various recreational services and programs.

Police and Fire Protection

Existing Conditions.

There are two fire stations serving the South Maui region. The first fire station is located at 11 Waimahaihai Street at Kalama Park, approximately 2.5 miles from the subject parcels. The second fire station is located in Wailea at the intersection of Kilohana Street and Kapili Street, approximately 4 miles from the subject parcels. The Wailea Fire Station provides coverage in the northern portion of the Kihei-Wailea-Makena area.



The proposed project is located in the Maui Police Department District VI. Patrol officers on assignment provide police services for the Kihei-Makena district from a police substation at Kihei Town Center. Currently, the Kihei Police Station has 45 budgeted uniformed patrol officers.

Potential Impacts and Mitigation Measures.

The Maui Fire Department will continue to provide adequate fire protection for the residents of Kihei. The *Maui County Public Facilities Assessment Update March 2007* describes the major opportunity of 2030 is the establishment of a new fire station in Ma'alaea to alleviate pressure on existing fire facilities serving South Maui.

According to the *Maui County Public Facilities Assessment Update March 2007* the Maui Police Department will need a total staff of 184. This represents an approximately 60-percent increase over the current number of officers assigned to the Kihei-Makena region. To accommodate for the future growth a permanent police station in central Kihei is currently being planned.

Medical Facilities

Existing Conditions.

The Maui Memorial Medical Center (MMMC) located in Wailuku provides centralized medical services for the Island. Medical and dental offices are located in Kihei and Wailea to serve the regions residents.

According to the *Maui County Public Facilities Assessment Update, March 9, 2007*, the status of hospital facilities on Maui in 2004 is as follows:

- **Obstetric and Pediatric Beds** are significantly underutilized throughout the County of Maui, with a maximum actual occupancy rate of 44% compared to the desirable rate of 75%.
- **Critical Care Beds**, available only at Maui Memorial Medical Center, stayed occupied at 61% rate in 2004, compared to the desirable rate of 75%.
- **Acute Care Beds** appeared to be undersupplied at MMMC. Molokai and Kula experienced occupancy of less than 20% of acute care bed capacity compared to the desirable rate of 80-85%.



- **Long-term Care Beds** at Hale Makua appeared to be inadequate to handle demand in 2004, with occupancy rates exceeding the desired rate of 95%. Kula Hospital's long term care (Acute/SNF) beds were underutilized at 93%.
- **Specialty Care Beds** were generally underutilized in facilities of the County of Maui in 2004. The optimal occupancy rate for specialty care beds is 95% and this was not achieved by any of the facilities.

Potential Impacts and Mitigation Measures.

The proposed Multi-family residential development will not result in a significant population increase and will therefore not produce an increase in demand for physicians, dentists, nurses, mental health personnel and hospital beds.

Solid Waste

Existing Conditions.

Two (2) landfills are currently operating on Maui, the Central Maui Landfill in Puunene and the Hana landfill. The County of Maui will provide solid waste collection for the proposed project.

Potential Impacts and Mitigation Measures.

The Department of Environmental Management does not have solid waste data for multi-family developments, therefore an estimation of solid waste generation for the proposed project is not available. Green waste from initial clearing of the site is not expected to be significant and will either be mulched on site or deposited at the Central Maui landfill's green waste recycling facility.

Schools

Existing Conditions.

Kihei-Makena has three schools serving 2,275 students, including two elementary schools and one intermediate school. Approximately 9% of these students are enrolled in special education, the lowest proportion of any Community Planning Region. There is one private elementary school enrolling 64 children. The need for an additional intermediate school is already evident, since Lokelani Intermediate was at 118% of rate capacity 2005. This region's proposed high school could be complete in 2011 and the Department Of Education (DOE) has begun the process. *Maui County Public Facilities Assessment Update, March 9, 2007.*



Potential Impacts and Mitigation Measures.

Resident population projections for the South Maui area suggest a significant increase in student population for this period. For the period 2010 to 2030, resident population is expected to increase from 28,114 to 38,757, a gain of 37%. Given the population projections, and considering the amount of development occurring in this region and the opportunity for continued development, the need for additional schools will be pronounced. The DOE is currently addressing the lack of a high school and funds have been allocated for site selection and design. The DOE's target operating date for Kihei High School is 2011. A new elementary school and intermediate school will also be warranted by 2030. *Maui County Public Facilities Assessment Update, March 9, 2007.*

D. INFRASTRUCTURE

1. Water

Existing Conditions.

Domestic water fire flow will be provided by the County's water system. There is an existing 18-inch waterline, which runs diagonally across the northwest corner of the project site and along the North-South Collector Road. The 36-inch Central Maui Waterline runs diagonally across the southeast corner of the project site, then along the North-South Collector Road.

A 2.0 million gallon reservoir, located approximately a mile above Piilani Highway provides storage for the area. The source for this water system is from the Central Maui Source. (See: Appendix C, Preliminary Engineering and Drainage Report)

Potential Impacts and Mitigation Measures.

In accordance with the Department of Water Supply's Domestic Consumption Guidelines for multi-family residential development, the average daily demand for the 166-unit project is approximately 92,660 gallons per day (See: Appendix C, Preliminary Engineering and Drainage Report) Fire flow demand for multi-family residential development is 2,000 gallons per minute for a 2 hour duration. Fire hydrants will be installed with a maximum spacing of 250 feet.

The project will connect to the existing 18-inch waterline along the North-South Collector Road, which is capable of providing water service and fireflow for the project. The required water meter size will be determined at the time the building permit is



applied for. The Department of Water Supply (DWS) cannot guarantee water for the project. A water meter can be applied for and secured after the required improvements are installed, inspected and accepted by the DWS.

Low flow fixtures, drought tolerant plants, and efficient irrigation, such as drip, will be implemented in order to conserve water. Although the Central Maui Water System source is reaching its limits, to date there are no restrictions in obtaining an upgrade or additional meter. Estimated flow at the fire hydrants is expected to meet fire protection requirements for residential areas.

2. Sewer

Existing Conditions.

There is an existing 8-inch sewer line on Ho'opili Akau Street, which terminates with an 8-inch stubout at the northwest corner of the property. The 8-inch stubout connects to an 8-inch sewer main on Ho'opili Akau Street, then to a 10-inch sewer line on Alulike Street, to a 10-inch sewer line on Kaonoulu Street, and to a 27-inch sewer main on South Kihei Road.

As part of the Kaonoulu Estates Phase IV Subdivision, a 10-inch sewer stubout was provided within a utility easement on Lot 51 for the proposed project. The existing 10-inch sewer line connects to an existing 10-inch sewer line mentioned above.

Sewer from the project site will flow to a series of collection systems and pump stations along South Kihei Road, which transports the wastewater collected from the Kihei area is transported to the Kihei Wastewater Reclamation Facility located above Piilani Highway and south of Elleair Golf Course. (See: Appendix C, Preliminary Engineering and Drainage Report)

Potential Impacts and Mitigation Measures.

The proposed 166-unit multi-family development will generate approximately 42,330 gallons per day of wastewater. The onsite sewerage collection system will be designed to accommodate this flow. The existing collection and transmission systems, pumping facilities and treatment plant have the capacity to handle the anticipated wastewater generated by the development.

According to the Wastewater Reclamation Division, County of Maui, the Kihei Wastewater Reclamation Facility has a capacity of 8.0 million gallons a day (mgd). As of



September 1, 2006, the allocated wastewater flow was 6.6 mgd and the actual daily flow was estimated at 4.6 mgd.

The onsite sewer system shall consist of a gravity flow system, which will connect to the existing 8-inch sewer line on Ho'opili Akau Street and the existing 10-inch sewer line at the east end of Alulike Street. The gravity system will eventually connect to the existing sewer system on South Kihei Road.

According to the Wastewater Assessment areas and fees set by the County of Maui, the subject project is located within the Kihei Assessment Area 3. At the present time, the County is assessing sewer fees of \$1,743.00 per unit for the collection system upgrade and \$1,185.75 per unit for the treatment plant facility expansion for multi-family development.

3. Drainage

Existing Conditions.

The elevation on the site ranges from 47 feet above mean sea level at the northeastern corner of the site to 16 feet at the southwestern corner, averaging approximately 2.8% slope.

There are two gulches, which traverse through the project site. The first is an unnamed gulch, which conveys runoff across Piilani Highway from double 102-inch culverts. This gulch starts near the intersection of Kaonoulu Street and Piilani Highway and traverses diagonally across the project site. As part of Kaonoulu Estates Phase IV Subdivision, a 16'-0" x 6'-6" Concrete box culvert was installed to convey runoff from the unnamed gulch, across the North-South Collector Road and discharging into Kulanihakoi gulch.

The second gulch is Kulanihakoi Gulch, which is a major drainage way. It traverses near the southern boundary of the site from an existing bridge at Piilani Highway to the four existing 6'-0" x 4'-0" concrete box culverts at its crossing on South Kihei Road. As part of the Kaonoulu Estates- Phase IV Subdivision, a portion of Kulanihakoi Gulch was improved with a boulder lining and geotextile invert.

According to a previous report "Drainage and Soil Erosion Control Report for Kaonoulu Estates Phase I," revised July 1990 by Warren S. Unemori Engineering Inc., the 100year storm runoff in the unnamed gulch is 1,109 cfs and 10,860 cfs in the Kulanihakoi Gulch. Presently, runoff from the project site sheet flows in an east to west direction and into the unnamed gulch or onto the North South collector Road. The onsite runoff eventually flows into Kulanihakoi Gulch and ultimately flows into the ocean. It is



estimated that the present 50-year, 1-hour runoff from the project site is 7.59 cfs. (See: Appendix C Preliminary Engineering and Drainage Report)

Potential Impacts and Mitigation Measures. A concrete box culvert will be installed from the outlet of the double 102-inch culverts at Piilani Highway, through the project site and connect to the existing 16'-0" x 6'-6" concrete box culvert on the site. The proposed concrete box culvert will meander through the site to avoid conflicts with any structures or improvements.

As part of the Kaonoulu Estates- Phase IV Subdivision, Lot 6 and portions of Lots 4 and 5 of Kaonoulu Estates Phase III was used for the construction of a detention basin. According to the "Drainage and Soil Erosion Control Report for Kaonoulu Estates - Phase IV." Prepared by Otomo Engineering, Inc., with a revision date of August 2001, the detention basin was designed to accommodate the increase in runoff from Phase IV project site, the then-proposed 140-unit multi-family site and commercial development is now the site of the current proposed project. The report also states that the detention basin was sized to accommodate 198,700 cubic feet of storage, of which 60,000 cubic feet of storage was provided for this project. (See: Appendix C Preliminary Engineering and Drainage Report)

The post development runoff from the project site is estimated to be 23.16 cfs, with an increase of 15.57 cfs over existing conditions. Onsite runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped area. Drain lines from the catch basins will convey the runoff to an outlet in Kulanihakoi Gulch. As noted herein, there is storage volume within the existing detention basin, which was created for this project.

Any structures located within a flood zone other than Zone C will be required to meet the County's requirements for development within a flood zone. Additionally, a Best Management Practices plan will be submitted as part of the grading permit. In addition a NPDES permit for construction activities will be required since the area of grading is greater than one acre. The NPDES permit will be secured before the issuance of the grading permit.

The proposed drainage system will be designed in accordance with Chapter 4, "Rules for the Design of Storm Drainage Facilities in the County of Maui."



4. Roadway

Existing Conditions. The primary streets and roadways serving the proposed project are Piilani Highway, South Kihei Road, and Kaonoulu Street. Piilani Highway is the primary arterial for South Maui. It is a four-lane highway. South Kihei Road is a two-lane roadway, which parallels Piilani Highway along the coastline and serves most of the commercial and residential communities in the Kihei area. Kaonoulu Street intersects with Kenolio Road to provide access to the proposed project site.

Kenolio Road is an unpaved segment of the proposed North-South Collector Road. It is a two-lane roadway, which is owned by the County, located between Piilani Highway and South Kihei Road. Portions of this roadway are improved and the County of Maui is in the planning stages of improving additional sections of the North-South Collector Road. It is located between Uwapo Road to Kaonoulu Street, and extends south past Kaonoulu Street as a short paved section to the Northwest edge of the project site.

Uwapo Road, Ohukai Road, Kaonoulu Street and Kulanihakoi Street are the nearby roadways running in the east-west direction in the vicinity of the project site. Uwapo Road and Ohukai Road are signalized at its intersection with Piilani Highway. The County owns these roadways.

Phillip Rowell and Associates prepared a Traffic Impact Analysis Report (TIAR) for the proposed Multi-family project. The TIAR included a Level-of-Service (LOS) analysis. LOS is a qualitative measure of the effect of a number of factors, which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. LOS D is typically considered acceptable for peak hour conditions in urban areas.

The existing traffic conditions at the intersection of Kaonoulu Street at Piilani Highway are a Level-of Service D or better at both the AM and PM Peak Hour. Additionally the intersection of Kaonoulu Street at Kenolio Road operates at a Level-of-Service B or better at both the AM and PM Peak Hour.

Potential Impacts and Mitigation Measures.

The TIAR identified existing and projected traffic conditions and analyzed potential mitigation measures. Access to and egress from the project site will be via three (3)



driveways along the east side of Kenolio Road (North-South Collector Road). The adjoining half of the North-South Collector Road will be improved to County standards for roadways within the urban district. It has an existing right of way width of 68 feet. The improvements will be coordinated with the County's preliminary design of the North-South Collector Road project.

The proposed interior project driveways will have a minimum of 24 feet width. The onsite parking stalls will meet the number and size requirements set forth by the Maui County Code. The geometrics and alignment will be coordinated with the Fire Department.

According to the TIAR, the proposed project will generate 13 inbound and 60 outbound trips during the morning peak hour. During the afternoon peak hour, the project will generate 55 inbound and 31 outbound trips.

The TIAR also estimated increases in background traffic volumes a result of other projects in the surrounding area. The proposed surrounding projects will warrant the need to signalize the Kaonoulu Street intersection at Piilani Highway. (See: Appendix F, Traffic Impact Assessment Report)

The Institute of Transportation Engineers recommends that a traffic impact study should be performed if, in lieu of another locally preferred criterion, development generates an additional 100 vehicle trips in the peak direction (inbound or outbound) during the site's peak hour. Based on the criterion, a traffic impact study is not warranted. To date, the County of Maui has not established criteria for projects within its jurisdiction.

In conclusion the level-of-service analysis has determined that several movements at the intersections along Piilani Highway will operate at below acceptable levels-of-service. The proposed project does not add traffic to these movements or the volume-to-capacity ratio implies a higher level-of-service than the level-of-service implied by the average vehicle delay. The conclusion of this is that adjustment of the traffic signal timing could reduce the delays and therefore improve the level-of-service. Additionally the proposed project will include construction of a portion of the North-South Collector Road, which will alleviate traffic congestion in the Kihei region. The proposed project is categorized as small scale and is not anticipated having a significant impact on traffic conditions in the region.



5. Electrical, Telephone, Cable and Data Systems

Existing Conditions.

There do exist overhead and telephone lines which are located along the North-South Collector Road. The surrounding Kaonoulu Estates and Piilani Village Subdivisions have existing underground electrical distribution systems, which can be extended to serve the project site.

Potential Impacts and Mitigation Measures.

The proposed electrical, telephone and cable TV distribution systems for the subject project will be installed underground from the existing facilities along the North-South Collector Road or from the adjacent developments. Streetlights will be within the project site at intervals to be determined by an electrical engineer. All lighting will be shielded and faced downward.



V. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. STATE LAND USE LAW

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, establishes four major land use districts into which all lands in the State are placed. These districts are designated Urban, Rural, Agricultural, and Conservation. The subject property is within the Urban District. The proposed Multi-family residential development is permitted within the Urban District.

Pursuant to § 15-15-18, Land Use Commission Rules, Subchapter 2, Standards for Determining “U” Urban District Boundaries, the proposed request is consistent with the following standard:

1. It shall include lands characterized by “city-like” concentrations of people, structures, streets, urban level services and other related land uses;

Analysis: The proposed Multi-family residential development is located along the west (makai) side of Piilani Highway at Ka’ono’ulu Street, east of Kenolio Road, and south of Ka’ono’ulu Street. Existing residential neighborhoods to the north, south and east and the Piilani Highway to the west surround the project site.

2a. Proximity to centers of trading and employment except where the development would generate new centers of trading and employment.

Analysis: The proposed Multi-family residential development is not expected to generate new centers of trading and employment. The proposed development is contiguous with other residential urban lands to the North and West. The site is located within a mile of existing regional scale trading and employment. Additional residents would help support existing trade and provide real property taxes to the County.



2b. Availability of basic services such as schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection: and

Analysis: As mentioned previously in section III the proposed development will have the availability of basic services such as: schools, parks, wastewater systems, solid waste disposal, drainage, water, transportation systems, public utilities, and police and fire protection. Most public services are within 2 miles of the project site and most utilities are adjacent to the project site.

2c. Sufficient reserve areas for foreseeable urban growth:

Analysis: Kihei has a sufficient inventory of undeveloped parcels that will provide areas for future urban growth in the Kihei area. The Kihei-Makena Community Plan, states, “The significant amount of vacant land mauka of Pi’ilani Highway will, in the future, provide opportunities to expand public facilities, parks and housing”. (Page 13, Kihei-Makena Community Plan March 6, 1998).

3. It shall include lands with satisfactory topography, drainage, and reasonably free for the danger of any flood, tsunami, unstable soil condition, and other adverse environmental effects;

Analysis: The project parcels include lands with satisfactory topography and drainage (**See:** Appendix C). The project parcels are located adjacent to the Piilani Highway and due to its location, the project site is reasonably free from the danger of flood, tsunami, and other environmental effects.

4. Land contiguous with existing urban areas shall be given more consideration than non-contiguous land, and particularly when indicated for future urban use on state or county general plans.

Analysis: The subject parcel is contiguous to other residential lands with the “Urban” land use classification. (**See:** Figure No. 3 State Land Use Map). The project site is bound by existing residential uses on the north and west sides of the project site. In addition land across Pi’ilani Highway is designated as Urban.

5. It shall include lands in appropriate locations for new urban concentrations and shall give consideration to area of urban growth as shown on the state and county general plans;



Analysis: According to the State Land Use District Map Parcel 157 and Parcel 158 are in the Urban district. The project site is in an appropriate location for new urban concentrations because it is contiguous to other pre-existing residential areas. (See: Figure No. 3 State Land Use Map)

6. A) *It may include lands which do not conform to the standards in paragraphs (1) to (5): When surrounded by or adjacent to existing urban development; and*
- B) *Only when those lands represent a minor portion of this district;*

Analysis: The proposed Multi-family residential development conforms to the standards in paragraphs 1 through 5 and therefore this standard is not applicable.

7. *It shall not include lands, the urbanization of which will contribute toward scattered spot urban development, necessitating unreasonable investment in public infrastructure or support services; and*

Analysis: The proposed Kaonoulu Phase VI Multi-family residential project can be categorized as an urban “infill” project and will not contribute toward scattered spot urban development. This development is contiguous to other existing urban development, and the proposed project is appropriately located in a manner to complete a cohesive neighborhood in Kihei.

8. *It may include lands with a general slope of twenty per cent or more if the commission finds that those lands are desirable and suitable for urban purposes and that the design and construction controls, as adopted by any federal, state, or county agency, are adequate to protect the public health, welfare, safety and the public's interests in the aesthetic quality of the landscape.*

Analysis: The elevation on the site ranges from 47 feet above mean sea level at the northeastern corner of the site to 16 feet at the southwestern corner, averaging approximately 2.8% slope. The design and construction controls, as adopted by any federal, state, or county agency will be adequate to protect the public health welfare and safety. Additionally, a licensed Landscape Architect has been retained to provide an aesthetically pleasing street tree landscape planting design for the subdivision.



B. MAUI COUNTY ZONING

The proposed project site comprises of 2 parcels. Parcel 157 is County zoned A-1 Apartment District and R-1 Residential District. Parcel 158 is County zoned A-1 Apartment District. The proposed Change in Zoning on Parcel 157 from A-1 Apartment District and R-1 Residential District to A-1 Apartment District will create consistency with the adjacent Parcel 158. (See: Figure No. 5 Zoning Map)



C. GENERAL PLAN OF THE COUNTY

The General Plan of the County of Maui (1990 update) provides long-term goals, objectives, and policies directed toward improving living conditions in the County. The following General Plan Themes, Objectives and Policies are applicable to the proposed project:

Goal: Population

Objective No. 1.: to plan the growth of resident and visitor population through a directed and managed growth plan so as to avoid social, economic and environmental disruptions.

Policies: (a) Manage population growth so that the County's economic growth will be stable and the development of public and private infrastructures will not expand beyond growth limits specified in the appropriate community plans or negatively impact our natural resources.

Analysis: The County of Maui has developed zoning to manage growth and establish areas of similar land uses to avoid social, economic, and environmental disruptions. As noted Parcel 157 is currently zoned A-1 Apartment District and R-1 Residential District. The proposed Change in Zoning of Parcel 157 would create two (2) contiguous parcels in the A-1 Apartment District and therefore the proposed Multi-family use is appropriate.

Goal: Land Use

Objective No. 1.: To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

Policies: (a) Through a community needs assessment analysis, define urban and rural limits in each community plan.
(b) Provide and maintain a range of land use districts sufficient to meet the social, physical, environmental and economic needs of the community.



Analysis: The project parcels are located adjacent to existing residential areas and the State Land Use designation is Urban. The Kihei-Makena Community Plan region maintains a range of land use districts that are sufficient to meet the needs of the community.

Objective No. 2.: To use the land within the County for the social and economic benefit of all the County's residents.

Policies (b) Encourage land use patterns that foster a pedestrian oriented environment to include such amenities as bike paths, linear parks, landscaped buffer areas, and mini-parks.

Analysis: The proposed Multi-family residential development provides landscaped open space and a pronounced central walkway system that will foster a pedestrian oriented environment in the development with connection to the existing sidewalk on Kaonoulu Road. (See: Figure No. 11, Site Plan)

Goal: Housing

Objective No. 1.: To provide a choice of attractive, sanitary and affordable homes for all our residents.

Policies: (a) Provide or require adequate physical infrastructure to meet the demands of present and planned future affordable housing needs.
(b) Encourage the construction of housing in a variety of price ranges and geographic locations.

Analysis: The proposed development is adjacent to Piilani Highway and accessed by Kenolio Street. The immediate surrounding area is developed as single-family residences and the required physical infrastructure will be provided before or concurrently for this future Multi-family residential project.

The proposed development will include Multi-family units of varying square footage at market rate and affordable prices, therefore satisfying policy B; which encourages the construction of housing in a variety of price ranges.



D. KIHEI-MAKENA COMMUNITY PLAN

Nine community plan regions have been established in Maui County. Each region's growth and development is guided by a community plan, which contains objectives and policies in accordance with the Maui County General Plan. The purpose of the community plan is to outline a relatively detailed agenda for carrying out these objectives.

The project parcels are located within the Kihei-Makena Community Plan region. Parcel 157 is "B" Business/Commercial and Parcel 158 is "MF" Multi-Family (See: Figure No. 4 Kihei-Makena Community Plan Map). The Kihei-Makena Community Plan was adopted by Ordinance No. 2641 on March 6, 1998.

The following Kihei-Makena Community Plan goals, objectives, and policies are applicable to the proposed action:

Goal: Land Use. *A well-planned community with land use and development patterns designed to achieve the efficient and timely provision of infrastructural and community needs while preserving and enhancing the unique character of Ma'alaea, Kihei, Wailea and Makena as well as the region's natural environment, marine resources and traditional shoreline uses.*

Objectives and Policies

c. Upon adoption of this plan, allow no further development unless infrastructure, public facilities, and services needed to service new development are available prior to or concurrent with the impacts of new development.

Analysis. The proposed Multi-family residential project is in close proximity to existing infrastructure systems, public facilities and urban services. The proposed project will have infrastructure available prior to or concurrent with the impacts of new development.

g. Encourage the establishment of Single-family and Multi-family land use designations, which provide affordable housing opportunities for areas, which are in close proximity to infrastructure systems and urban services.



Analysis. The proposed Multi-family residential project will provide affordable housing opportunities to the Kihei area as required by the Residential Workforce Housing Policy, Ordinance No. 3418. The proposed project is in close proximity to infrastructure systems and urban services. The proposed Community Plan Amendment (CPA) from “B” Business/Commerical to “MF” Multi-Family will allow construction of affordable residential units to satisfy the community need for affordable housing options in the Kihei-Makena region.

Goal: Environment. *Preservation, protection, and enhancement of Kihei-Makena’s unique and fragile environmental resources.*

Analysis: As described in Section III of this report, the Kihei-Makena Community Plan region’s unique and fragile environmental resources, including its shoreline, near and offshore water quality, drinking water, visual resources, archeological resources, and endangered species of flora and fauna, will not be significantly impacted by this project.

Goal: Housing and Urban Design. *A variety of attractive, sanitary, safe and affordable homes for Kihei’s residents, especially for families earning less than the median income for families within the County. Also, a built environment, which provides complementary and aesthetically pleasing physical and visual linkages with the natural environment.*

Objectives and Policies:

- a. Provide adequate variety of housing choices and range of prices for the needs of Kihei’s residents, especially for families earning less than the median income for families within the County, through the project district approach and other related programs. Choices can be increased through public/private sector cooperation and coordinated development of necessary support facilities and services.
- b. Require a mix of affordable and market-priced housing in all major residential projects, unless the project is to be developed exclusively as an affordable housing project.



Analysis: The County of Maui passed a Residential Workforce Housing Policy (RWHP), Chapter 2.96, Maui County Code. Any residential project that results in the creation of 5 or more units would trigger the requirements of the RWHP. Based on location and type of units proposed (multi-family), we assume that the proposed units will have a market value less than \$600,000 per unit, therefore current legislation requires that 40 percent of new units be sold or rented as workforce units, or that some in-lieu fee is paid. The in-lieu fee is adjustable, based on interest rates, and can be reduced if delivered in partnership with a non-profit, affordable housing project. At present, the in lieu fee is approximately \$200,000 per workforce housing unit owned, while partnership with a non-profit is approximately \$120,000 per workforce unit owed. In addition, the in-lieu fee is subject to approval by the Maui County Council, while partnership with a non-profit is not.

The applicant is committed to building affordable residential units and will enter into a Residential Workforce Housing Policy agreement with the County of Maui as part of the proposed project. The development will positively impact the Kihei community by providing much needed affordable housing.

The developer is aware of this requirement. The proposed Community Plan Amendment (CPA) from “B” Business/Commercial to “MF” Multi-Family will allow construction of additional residential units to satisfy the community need for additional housing options in the Kihei-Makena Community Plan region.

- e. Implement landscape setbacks for future multi-family and commercial areas. Developments shall provide space for landscape pedestrian ways and bikeways.
- f. Incorporate the principles of xeriscaping in all future landscaping.
- g. Encourage, the use of native plants in landscaping in the spirit of Act 73, Session Laws of Hawaii, 1992.

Analysis: The proposed Multi-family residential development provides landscaped open space and a pronounced walkway system that will provide a pedestrian oriented environment with the capability to connect with the existing sidewalk on Kaonoulu Road. The Landscape plan will incorporate the principles of xeriscaping and use of native plants when possible. (See: Figure No. 8 Landscape Architecture Plan)



Goal: Physical and Social Infrastructure. *Provision of facility systems, public services and capital improvement projects in an efficient, reliable, cost effective, and environmentally sensitive manner which accommodates the needs of the Kihei-Makena community, and fully support present and planned land uses, especially in the case of project district implementation.*

Allow no development for which infrastructure may not be available concurrent with the development's impacts.

Analysis: Section III of this report addresses the impact that the proposed Multi-family residential project will have upon existing public infrastructure, facilities, and service systems. Based upon the analysis, the necessary infrastructure, public facilities, and services will be available prior to and/or concurrent with development of the site.



VI. SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES

The subject project is located within the Special Management Area (SMA). As such, the proposed improvements will require an SMA Use Permit. Pursuant to Chapter 205A, Hawaii Revised Statutes, and the Rules and Regulations of the Planning Commission of the County of Maui, projects located within the SMA are evaluated with respect to SMA objectives, policies, and guidelines. This section addresses the project's relationship to applicable coastal zone management considerations, as set forth in Chapter 205A and the Rules and Regulations of the Planning Commission.

A. RECREATIONAL RESOURCES

Objective: Provide coastal recreational resources accessible to the public.

Policies:

- (A) *Improve coordination and funding of coastal recreation planning and management; and*
- (B) *Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:*
 - (i) *Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
 - (ii) *Requiring placement of coastal resources having significant recreational value, including but not limited to surfing sites, fishponds, and sand beaches, when such resources will be unavoidably damaged by development; or require reasonable monetary compensation to the state for recreation when replacement is not feasible or desirable;*
 - (iii) *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
 - (iv) *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
 - (v) *Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having standards and conservation of natural resources;*
 - (vi) *Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;*
 - (vii) *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing;*



- (viii) *Encourage reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, county planning commissions; and crediting such dedication against the requirements of Section 46-6, HRS.*

Analysis. The project site is adjacent to the Piilani Highway, approximately ½ mile from the ocean. Therefore the project will not have a direct impact on the public's use or access to the shoreline area.

B. HISTORICAL/CULTURAL RESOURCES

Objective: Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Policies:

- (a) Identify and analyze significant archeological resources;*
- (b) Maximize information retention through preservation of remains and artifacts or salvage operations; and*
- (c) Support state goals for protection, restoration, interpretation, and display of historic structures.*

Analysis.

Xamanek Researchers, LLC, conducted an Archaeological Field Inspection on the project site in October 2006. There were no significant material cultural remains or intact cultural layers noted during the surface inspection and subsurface testing of this previously disturbed parcel. Fill in tested portions of the study area ranged from 50 to over 100 cm in thickness. (**See:** Appendix D Archaeological Field Inspection)

Jillian Engledow conducted a Cultural Impact Assessment of the project site and surrounding area in April 2007. The primary cultural feature in the area is the Ko'ie'ie Fishpond, one-half mile makai of the project site. The Ko'ie'ie Fishpond's initial construction date is unknown, but has been rebuilt several times over the last few centuries. The Fishpond is currently collapsed. The cultural study of the site found no signs of permanent habitation or agriculture on the project site. (**See:** Appendix E Cultural Impact Assessment)

Potential Impacts and Mitigation Measures.

Given the level of surface disturbance to the general 8.2 acre Kaonoulu Phase VI study area, as well as the subsurface evidence of previous impact, no further archaeological



work appears to warrant for this property at this point in time. (See: Appendix D Archaeological Field Inspection)

The Ko'ie'ie Fishpond is currently being restored and offers a cultural and environmental education opportunity to interested people. The proposed action on the subject parcels will not interfere with this restoration effort. Therefore the proposed project will have no adverse impact on any significant historic sites. (See: Appendix E Cultural Impact Assessment)

C. SCENIC AND OPEN SPACE RESOURCES

Objective: Protect, preserve and, where desirable, restore or improve the quality of coastal scenic and open space resources.

Policies:

- (a) Identify valued scenic resources in the coastal zone management area;*
- (b) Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;*
- (c) Preserve, maintain, and where desirable, improve and restore shoreline open space and scenic resources; and*
- (c) Encourage those developments that are not coastal dependent to locate in inland areas.*

Analysis. As discussed in Section III of this report, numerous scenic resources have been identified in Kihei/Makena area, which are identified and discussed in the Maui Coastal Scenic Resources Study, August 1990 (See: Figure 12, "Maui Scenic Coastal Resources Study Map"). The proposed Kaonoulu Phase VI Multi-family Residential project is located adjacent to the Piilani Highway in South Maui and offers views of Haleakala. According to the Maui Coastal Scenic Resources Study Map the proposed development is not located in an area that would significantly impact public view corridors, or the visual character of the site and its immediate environs.

D. COASTAL ECOSYSTEMS

Objective: Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.

Policies:

- (a) Improve the technical basis for natural resource management;*



- (b) *Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*
- (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; and*
- (d) *Promote water quantity and quality planning and management practices, which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses, which violate state water quality standards.*

Analysis. As noted previously, the proposed project site is adjacent to the Piilani Highway, approximately ½ mile from the coast. Therefore, the proposed project is not anticipated to have a significant impact on the coastal ecosystem. Furthermore, the incorporation of mitigation measures during construction as identified in Section III.D.3 of this report will minimize the potential for short-term adverse impacts.

E. ECONOMIC USES

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Policies:

- (a) *Concentrate coastal dependent development in appropriate areas;*
- (b) *Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area;*
- (c) *Direct the location and expansion of coastal dependent developments to areas presently designated and used for such development and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:*
 - (i) *Use of presently designated locations is not feasible;*
 - (ii) *Adverse environmental impacts are minimized; and*
 - (iii) *The development is important to the State's economy.*

Analysis. The proposed Multi-family Residential use of the property is consistent with the State's Urban land use designation, and the County's zoning. As such, the proposed project is within an area that has been planned for growth and development and will provide the supporting infrastructure and services required to service this growth.



F. COASTAL HAZARDS

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution.

Policies:

- (a) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and non-point source pollution hazards;*
- (b) Control development in areas subject to storm wave, tsunami, flood, erosion, subsidence, and point and non-point pollution hazards;*
- (c) Ensure that developments comply with requirements of the Federal Flood Insurance Program;*
- (d) Prevent coastal flooding from inland projects; and*
- (e) Develop a coastal point and nonpoint source pollution control program.*

Analysis. As discussed in Section III of this report, the project site is located approximately ½ mile from the Ocean and is situated within Flood Zone C. (**See:** Figure No. 6 Flood Insurance Rate Map) Thus, hazard to life and property from tsunami, storm waves, stream flooding, erosion, subsidence and pollution is not expected to be significant. The proposed subdivision has retained a licensed civil engineer to develop a drainage plan to mitigate potential flooding conditions to surrounding neighbors. (**See:** Appendix C Preliminary Engineering and Drainage Report)

G. MANAGING DEVELOPMENT

Objective: Improve the development review process, communication, and public participation in the management of coastal resources hazards.

Policies:

- (a) Use, implement, and enforce existing laws effectively to the maximum extent possible in managing present and future coastal zone development;*
- (b) Facilitate timely processing of applications for development permits and resolve overlapping of conflicting permit requirements; and*
- (c) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their life cycle and in terms understandable to the public to facilitate public participation in the planning process and review process.*

Analysis. The proposed Multi-family residential project will be conducted in accordance with applicable State and County requirements. Opportunity for review of



the proposed action is provided through the County's SMA permitting process and the State's EA review process.

H. PUBLIC PARTICIPATION

Objective: Stimulate public awareness, education, and participation in coastal management.

Policies:

- (a) Maintain a public advisory body to identify coastal management problems and to provide policy advice and assistance to the coastal zone management program.*
- (b) Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities; and*
- (c) Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.*

Analysis. In conjunction with the submittal of the SMA application, a notice of application will be mailed to property owners within 500 feet. The mail-out describes the proposed project and solicits any issues or concerns that need to be addressed through the permitting process. A number of governmental agencies have also been consulted and copies of this application will be circulated to various agencies by the Department of Planning. During the scheduled public hearings, the public will have an opportunity to review and comment on the proposed project. Landowners located within 500 feet of the project will be notified of the scheduled public hearing dates. Public hearing dates and location maps will also be published in the Maui News on two separate occasions. The public will be allowed to participate in the public hearing portion of the Maui Planning Commission's review process. The EA process also provides an opportunity for public comment.

I. BEACH PROTECTION

Objective: Protect beaches for public use and recreation.

Policies:

- (a) Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion;*
- (b) Prohibit construction of private erosion-protection structures seaward of the shoreline, except when they result in improved aesthetic and engineering solutions to erosion at the sites and do not interfere with existing recreational and waterline activities; and*



(c) *Minimize the construction of public erosion-protection structures seaward of the shoreline.*

Analysis. As noted previously, the project site is adjacent to the Piilani Highway. The project site is situated approximately ½ mile from the coast. Therefore, the proposed project is not anticipated to have a significant impact on the coastal ecosystem. The construction of the proposed project on the subject property will not have a direct physical impact upon any coast.

J. MARINE RESOURCES

Objective: Implement the State's ocean resources management plan.

Policies:

- (a) *Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;*
- (b) *Assure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;*
- (c) *Coordinate the management of marine and coastal resources and activities management to improve effectiveness and efficiency;*
- (d) *Assert and articulate the interest of the state as a partner with federal agencies in the sound management of the ocean resources within the United States exclusive economic zone;*
- (e) *Promote research, study, and understanding of ocean processes, marine life, and other ocean development activities relate to and impact upon the ocean and coastal resources; and*
- (f) *Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.*

Analysis. The proposed project does not involve the direct use or development of marine resources. In addition, with the incorporation of erosion and drainage control measures during construction and after construction as identified in the infrastructure section of this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject project will not produce any significant impacts on any coastal or marine resources.



VII. FINDINGS AND CONCLUSIONS

Based on the foregoing analysis and conclusion, the proposed project will not result in significant impacts to the environment and is consistent with the requirements of HRS Chapter 343, and a Finding of No Significant Impact (FONSI) is warranted.

The proposed project is considered an urban infill project and will provide much needed affordable housing in South Maui. The proposed project will include construction of a total of 166 units with necessary supporting infrastructure. The development will result in fifty-six 1-bedroom units, eighty-four 2-bedroom units and twenty-six 3-bedroom units.

Associated improvements include paved roadways; concrete curbs, gutters and sidewalks; onsite drainage systems, water system, sewer system, underground utilities, landscape planting, and offsite roadway improvements along Kenolio Road fronting the project site.

The proposed Change in Zoning from R-1 Residential and A-1 Apartment to A-1 Apartment for Parcel 157 and Community Plan Amendment from "B", Business/Commercial to "MF", Multi-Family will result in consistent land use designations. Parcel 158 does not require a CIZ or CPA.

There is existing infrastructure for the project site. Currently, all on-site drainage will be retained in a previously installed detention basin. An 18-inch waterline along the North-South Collector Road is capable of providing water service and fireflow for the project. The additional required infrastructure will be built prior to and or concurrently with the project.

As noted previously, the project site is adjacent to Piilani Highway. The project site is situated approximately ½ mile from the coast. Therefore, the proposed project is not anticipated to have a significant impact on the coastal ecosystem. The construction of the proposed project on the subject property will not have a direct physical impact upon any coastal shoreline processes.

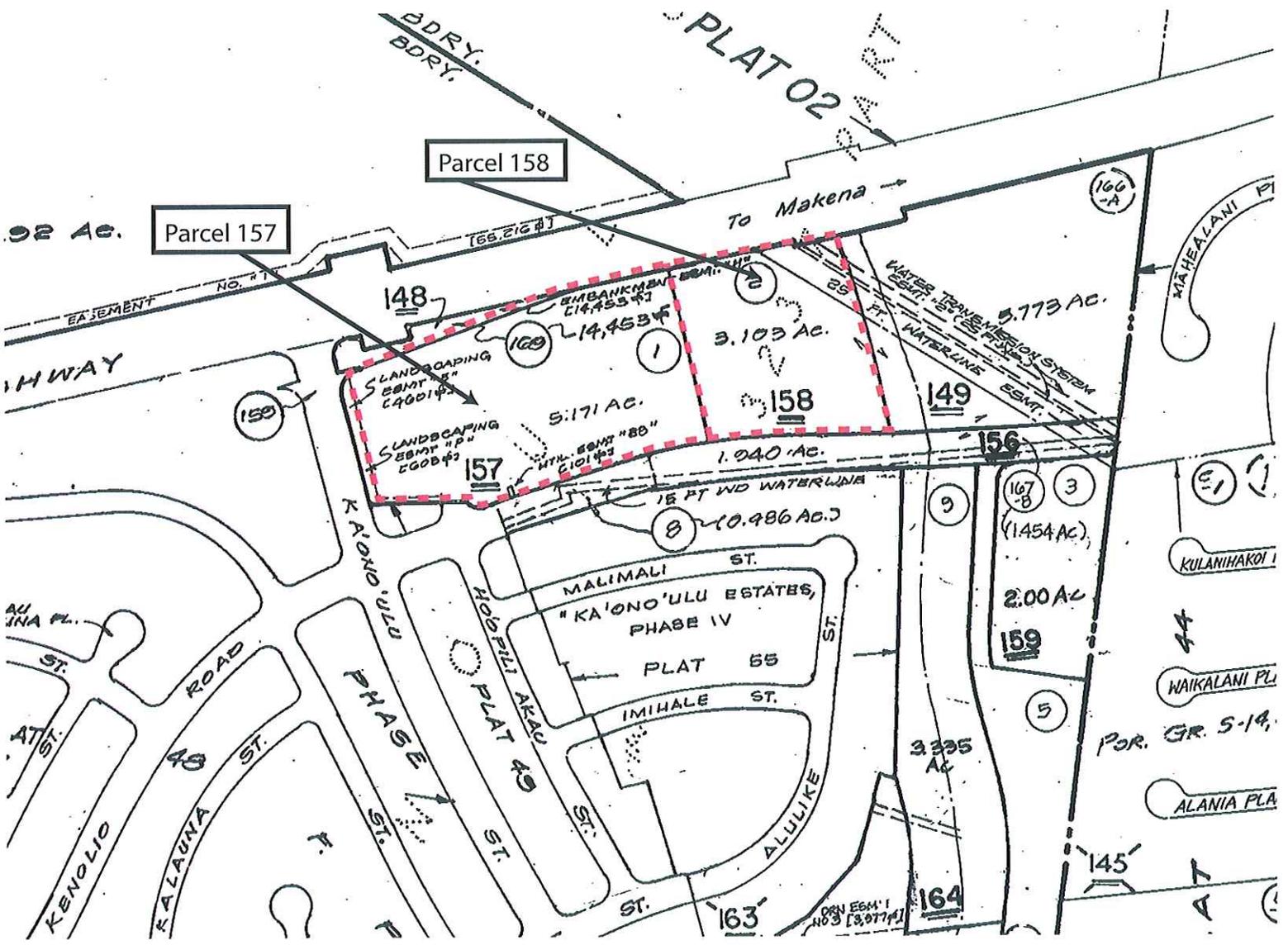


VIII. REFERENCES

- County of Maui, Department of Planning. 1991. *The General Plan of the County of Maui, 1990 Update*. Wailuku, Hawaii.
- County of Maui, Department of Planning. 1998. *Kihei-Makena Community Plan*. Wailuku, Hawaii.
- County of Maui, Office of Economic Development. 2004. *Maui County Data Book*. Wailuku, Hawaii.
- Environmental Planning Associates. August 31, 1990. *Maui Coastal Scenic Resources Study*. Kihei, Hawaii.
- Federal Emergency Management Agency. Revised June 1, 1981. *Flood Insurance Rate Map*. Community Panel Map Number 150003 0330 C.
- U.S. Department of Agriculture, Soil Conservation Service in Cooperation with the University of Hawaii, Agricultural Experiment Station. 1972. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. Washington, D.C.

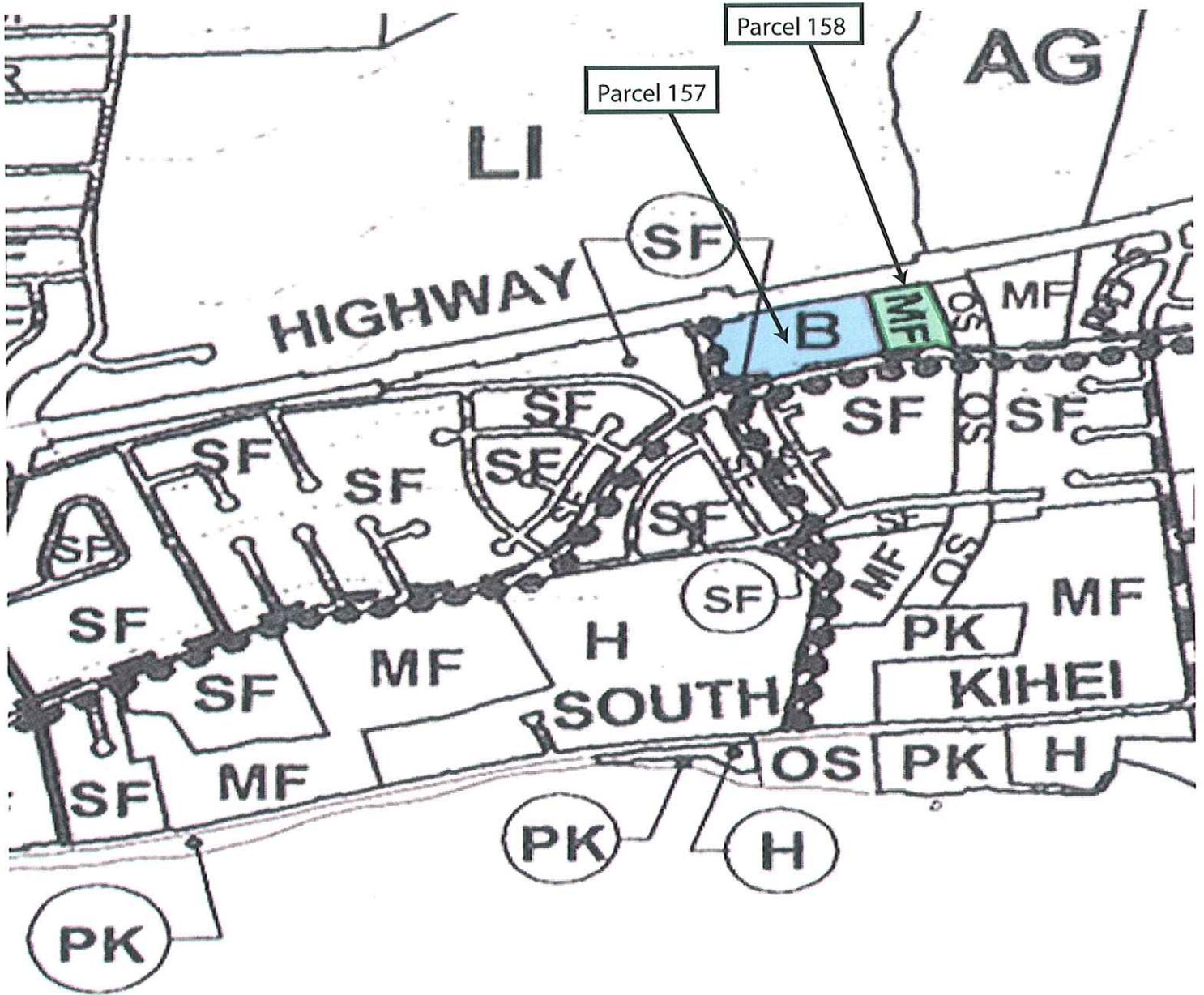


Figures

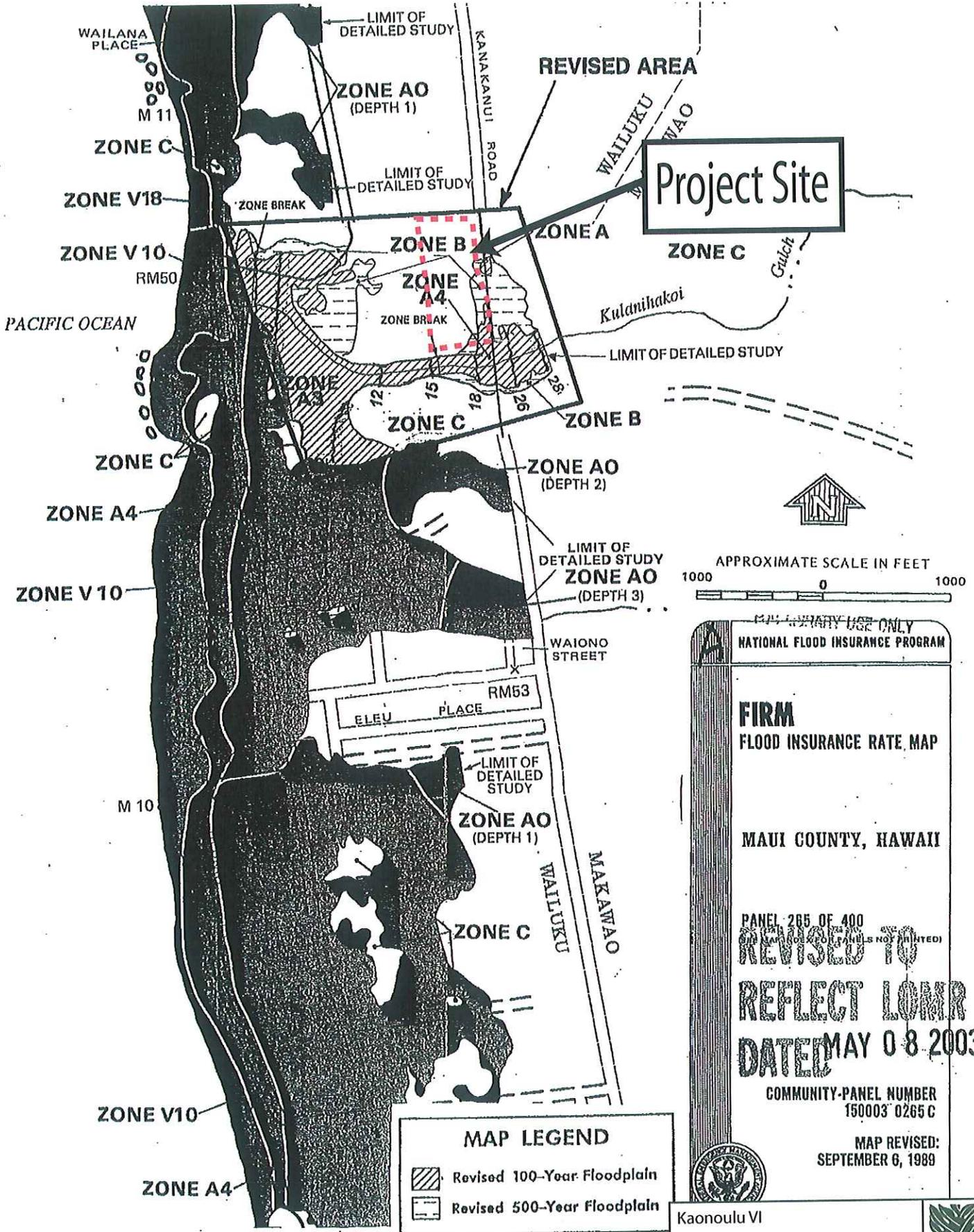


TMK:(2) 3-9-01:157 and 158

Kaonoulu VI Figure No. 2	September 2006	
Tax Map Key (Not to Scale)		CHRIS HART & PARTNERS, INC.



<p>Kaonoulu VI Figure No. 4</p>	<p>September 2006</p>	
<p>Kihehi-Makena Community Plan (Not to Scale)</p>		<p>CHRIS HART & PARTNERS, INC.</p>



Project Site



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

MAUI COUNTY, HAWAII

PANEL 265 OF 400
REVISED TO REFLECT LOMR DATED MAY 08 2003

COMMUNITY-PANEL NUMBER
 150003 0265 C

MAP REVISED:
 SEPTEMBER 6, 1989

MAP LEGEND

- Revised 100-Year Floodplain
- Revised 500-Year Floodplain



Kaonoulu VI
 Figure No. 6
 September 2006

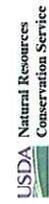
Flood Insurance Rate Map
 (Not to Scale)

SOIL SURVEY OF ISLAND OF MAUI, HAWAII



5/22/2007
Page 1 of 3

Web Soil Survey 1:1
National Cooperative Soil Survey



Kaonoulu VI	5/22/2007
Figure No.7	Soil Map



TREES

- MONKEY POD (FIELD STOCK)
- HAWAIIAN KOU (25 GAL.)***
- PINK TECOMA (25 GAL.)
- PLUMERIA (25 GAL.)
- JATROPHA (25 GAL.)
- NAIO (25 GAL.)***
- BEACH HELOTROPE (25GAL.)
- HALA TREE (25 GAL.)***

PALMS

- COCONUT PALM (15 GAL.)***
- MACARTHUR PALM (15 GAL.)
- ALPHONSE CARR (15GAL.)
- LOULU PALM (15 GAL.)***

SHRUBS

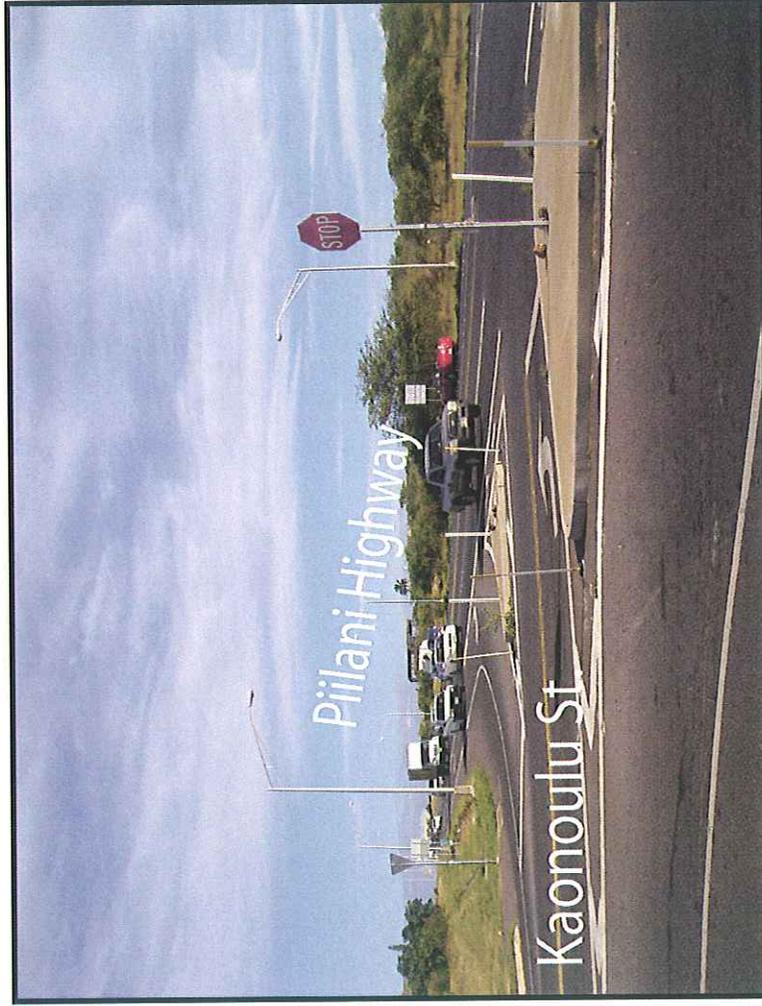
- HIRAHINA (1 GAL.)***
- NEHE (1 GAL.)***
- NAIO (1 GAL.)***
- ILIMA (1 GAL.)***
- AKIA (1 GAL.)***
- POHINAHINA (1 GAL.)***

GROUNDCOVER

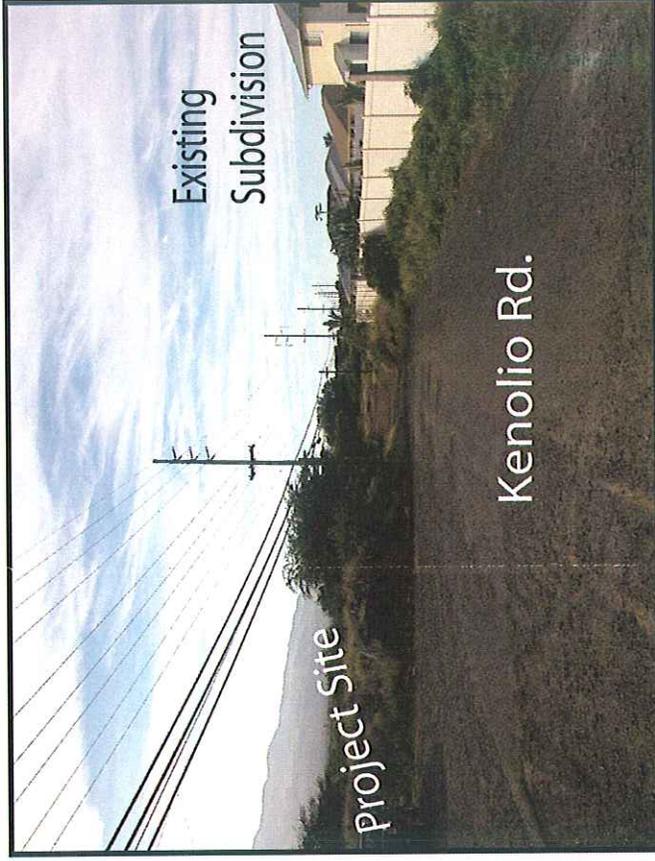
- AKI AKI GRASS (4" POTS)***
- ST. AUGUSTINE (STOLONS)
- BOULDERS

*** INDICATES HAWAIIAN NATIVE PLANT SPECIES (POLYNESIAN INTRODUCED)





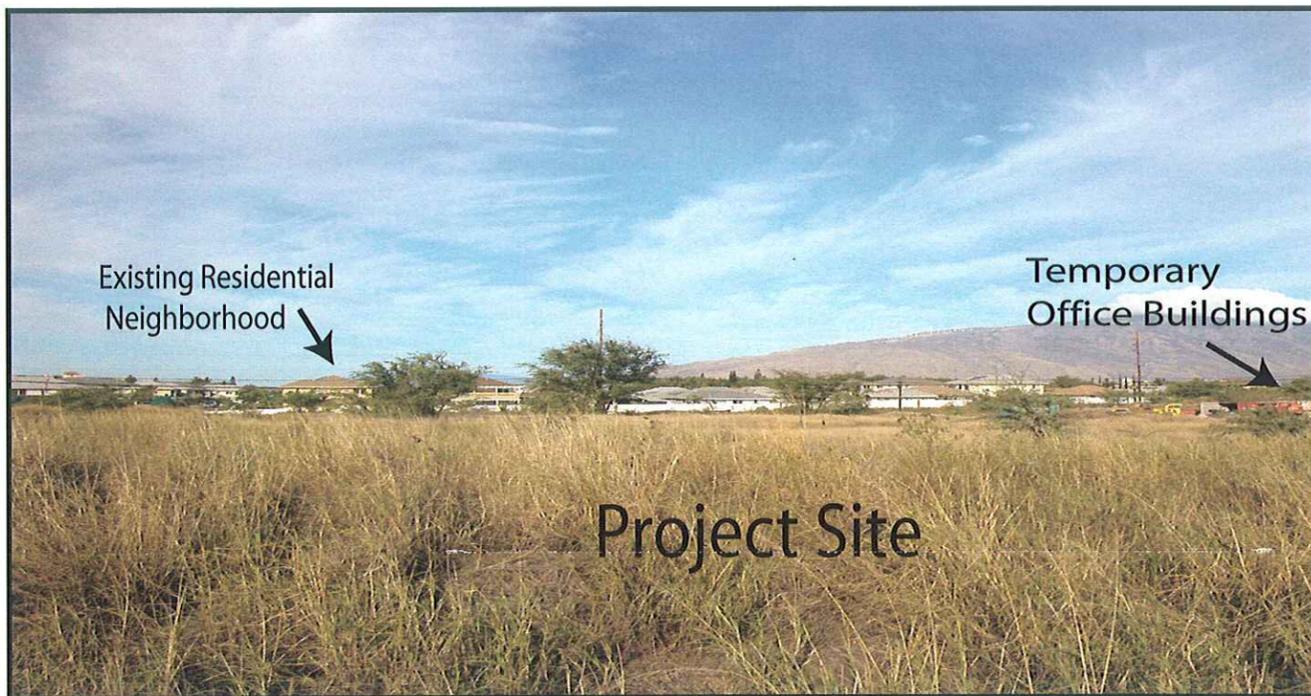
North Facing View at the Intersection of Kaonoulu Street and Piilani Highway.



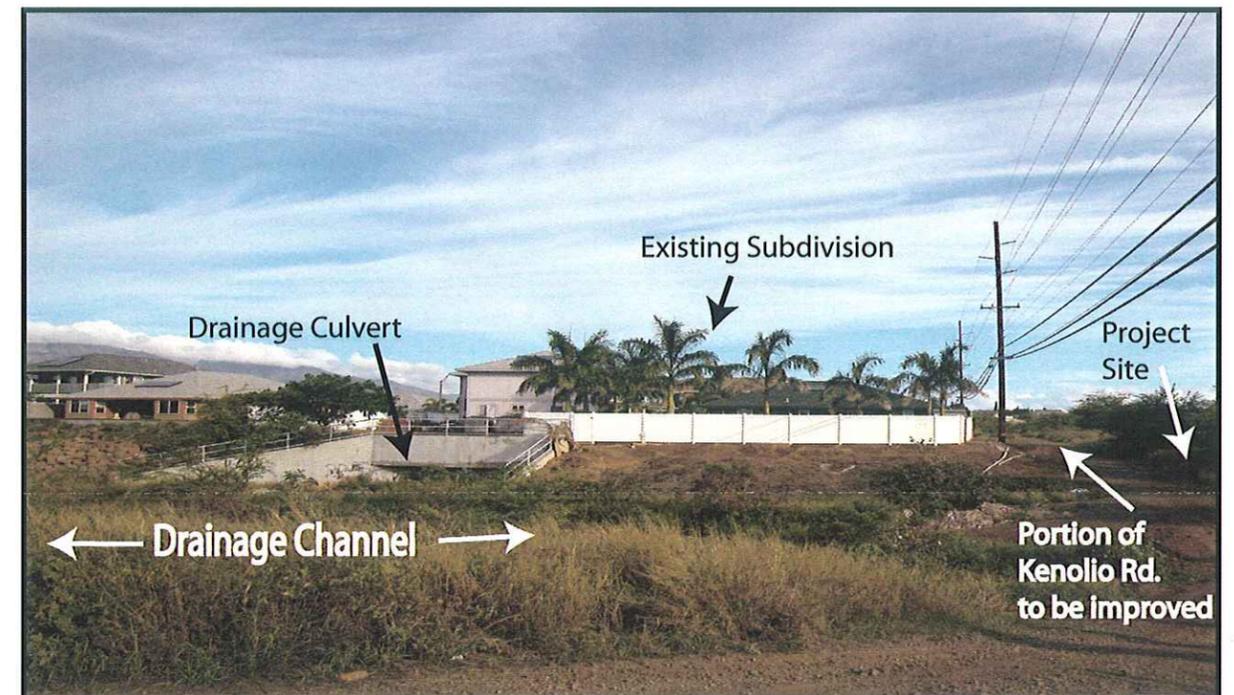
South view, looking at the unimproved portion of Kenolio Road that will provide access to the project.

<p>Kaonoulu VI Figure No. 10.1</p>	<p>March 2008 Site Photographs</p>
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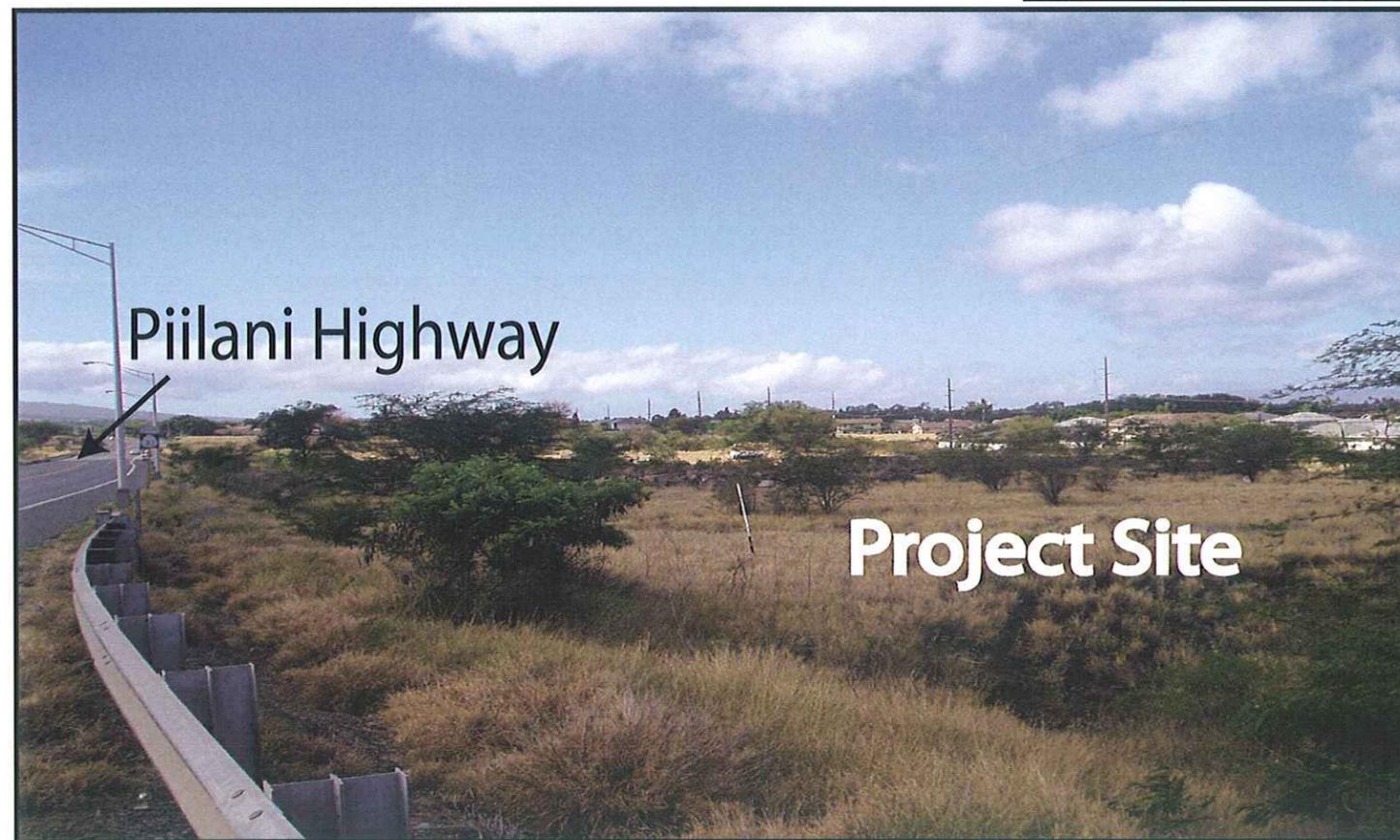




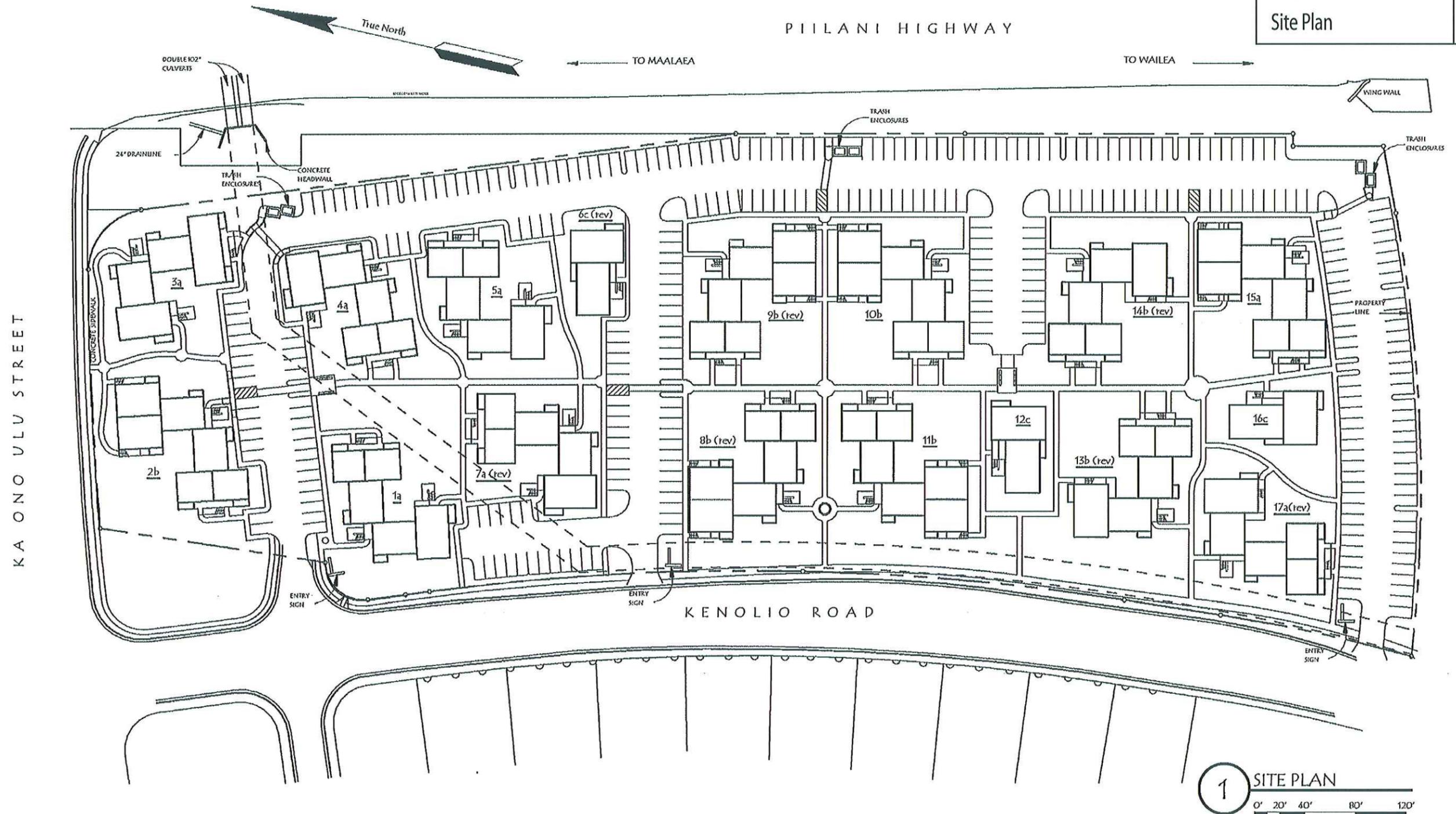
Photograph of Project Site taken from Piilani Highway facing West with West Maui Mountains in background.



North View of Drainage Channel that serves existing Single-Family Homes (Note: The drainage infrastructure constructed was previously engineered to accommodate the proposed Kaonoulu VI.)



South View, looking at the Project Site from the intersection of Kaonoulu Street and Piilani Highway.



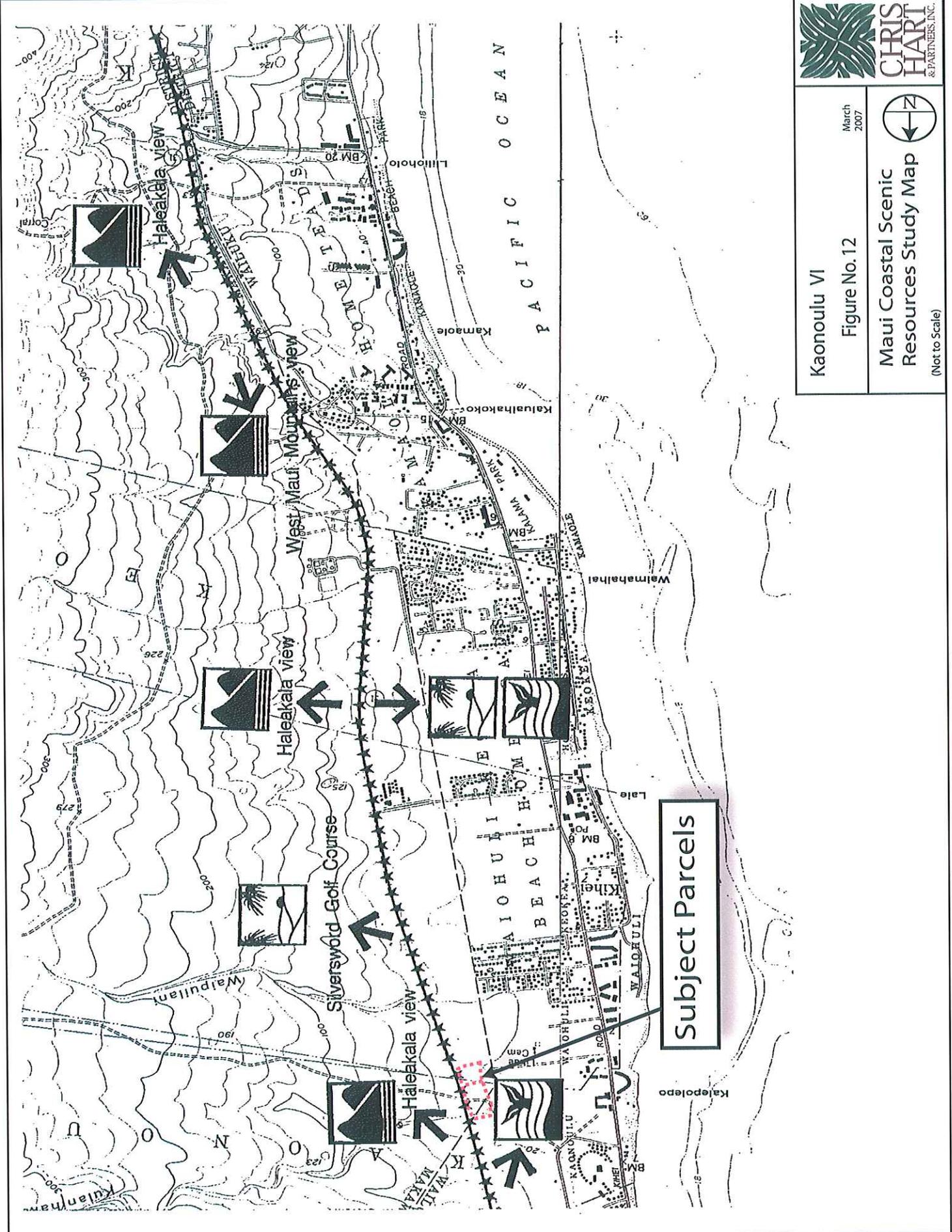
1 SITE PLAN
 0' 20' 40' 80' 120'

MAUI ARCHITECTURAL GROUP INC.
www.mauiarch.com
 WAILEALO, MAUI, HAWAII 96793
 2331 W. MAIN STREET
 TELEPHONE (808) 244-9011
 FAX (808) 242-1776
 email: maui@mauiarch.com

KA ONO ULU - PHASE 6
 Kihei, Maui, Hawaii

SITE PLAN

11/27/07
 A4
 Sheet 5 of 11

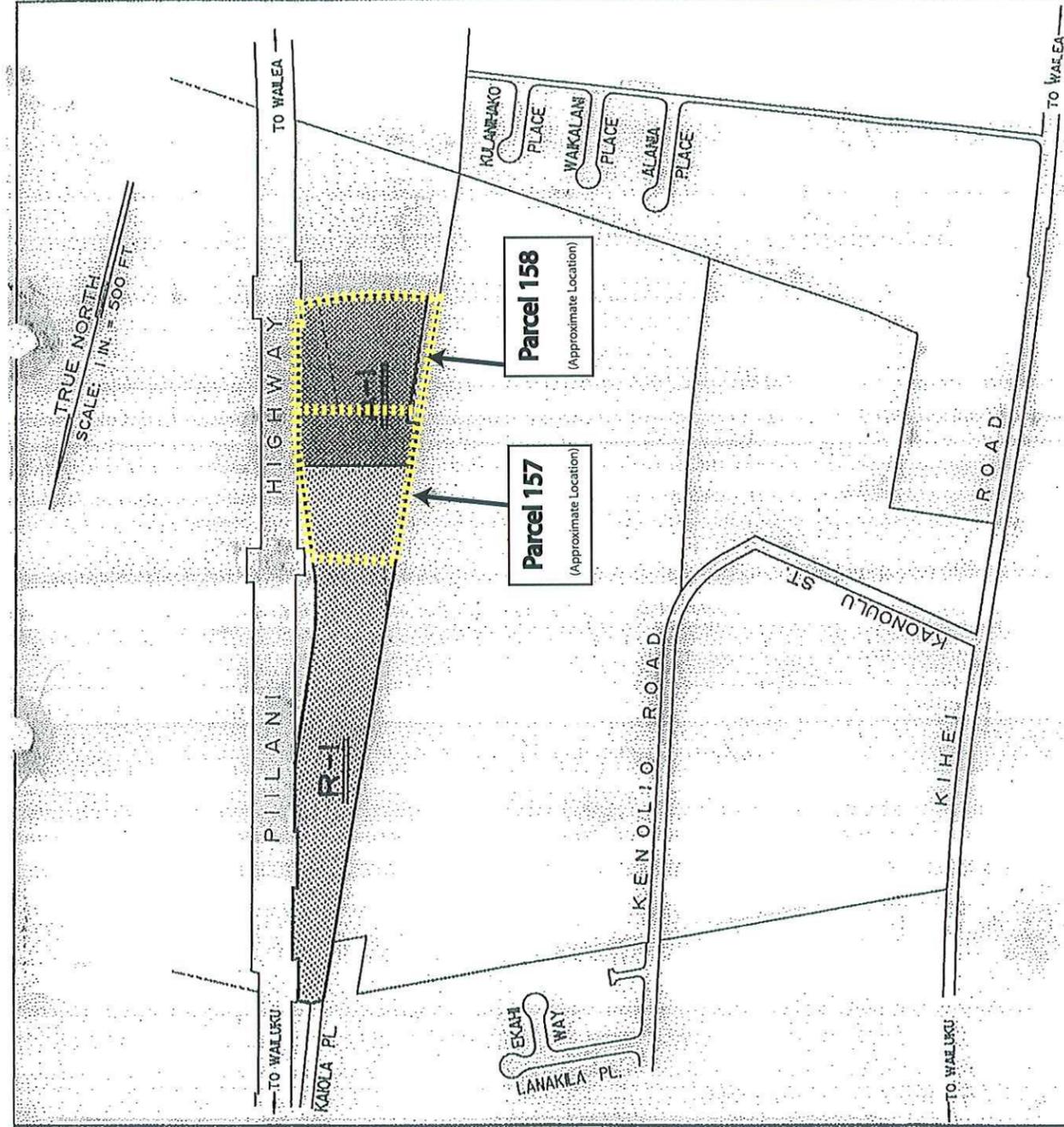


Kaonoulu VI
Figure No. 12
 Maui Coastal Scenic Resources Study Map
 (Not to Scale)

March 2007



Subject Parcels



LAND:
R-1
A-1

AREA:
9.527 ACRES
5.436 ACRES

TOTAL = 14.963 ACRES

TMK 3-9-001: PORTION OF 149

LAND ZONING MAP NO. 543

**CHANGE IN ZONING - KIHEI, MAUI
FROM COUNTY AGRICULTURAL DISTRICT
TO R-1 RESIDENTIAL AND A-1 APARTMENT**

APPROVAL:

PUBLIC HEARING: MAY 8, 1990
ADOPTED COUNCIL: 12-20-91
ADOPTED MAYOR: 1-7-92
ORDINANCE NO: 2073

County Clerk

[Signature]
Planning Director

APPROVAL:

DATE: 9/10/90

SCALE: 1" = 500'

OFFICE OF THE COUNTY CLERK

200 SO. HIGH ST., WAILUKU, MAUI, HAWAII, 96793

L-543



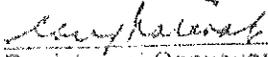


APPENDICES



APPENDIX A
OWNERSHIP DOCUMENTS

I hereby certify that this is
a true copy from the records
of the Bureau of Conveyances.


Registrar of Conveyances
Assistant Registrar, Land Court
State of Hawaii



R-220 STATE OF HAWAII
BUREAU OF CONVEYANCES
RECORDED
DEC 27, 2006 08:01 AM
Doc No(s) 2006-236821



20 1/1 Z12

/s/ CARL T. WATANABE
REGISTRAR OF CONVEYANCES

CTax (30): \$10350.00

LAND COURT SYSTEM

REGULAR SYSTEM

After Recordation Return by Mail () Pickup () To:

Piilani Makai Inc.
635 Kenolio Road
Kihei, HI 96753

Tel: 374534-0 (RS)

TOTAL NUMBER OF PAGES: 7

T.M.K. No. (2) 3-9-001-157 (Lot 1)

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

That KENRANES LTD., a Hawaii corporation, whose address is 635 Kenolio Road, Kihei, Maui, Hawaii 96753, hereafter the "Grantor", for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to Grantor paid by PIILANI MAKAI INC., a Hawaii corporation, whose address is 635 Kenolio Road, Kihei, Maui, Hawaii, 96753, hereafter the "Grantee", receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey all of that certain property more fully described in Exhibit "A" hereto attached and incorporated herein by reference, unto the Grantee, as Tenant in Severalty, their successors and assigns, forever.

AND the reversions, remainders, rents, issues and profits thereof and all of the estate, right, title and interest of the Grantor, both at law and in equity, therein and thereto.

TO HAVE AND TO HOLD the same together with all buildings, improvements, tenements, rights, easements, hereditaments, privileges and appurtenances thereunto belonging or

RECORDED
* BUREAU *

appertaining, or held and enjoyed in connection therewith unto the Grantee according to the tenancy hereinabove set forth, absolutely and in fee simple, forever.

AND the Grantor hereby covenants with the Grantee that the Grantor is lawfully seised in fee simple of the described real and personal property and that the Grantor has good right to convey the same as aforesaid; that the property is free and clear of all encumbrances, except as may be described in Exhibit "A"; and that the Grantor will WARRANT AND DEFEND the same unto the Grantee, forever, against the lawful claims and demands of all persons, except as aforesaid.

It is understood and agreed that the term "property" shall be deemed to mean and include the property specifically described in Exhibit "A", and all rights, easements, privileges and appurtenances in connection therewith, that the terms "Grantor" and "Grantee", as and when used herein, or any pronouns used in place thereof, shall mean and include the masculine and/or feminine, the singular or plural number, individuals, firms or corporations, that the rights and obligations of the Grantor and Grantee shall be binding upon and inure to the benefit of their respective estates, heirs, personal representatives, successors in trust and assigns and that where there is more than one Grantor or Grantee, any covenants of the respective party shall be and for all purposes deemed to be joint and several.

The parties hereto agree that this instrument may be executed in counterparts, each of which shall be deemed an original, and said counterparts shall together constitute one and the same agreement, binding all of the parties hereto, notwithstanding all of the parties are not signatory to the original or the same counterparts. For all purposes, including, without limitation, recordation, filing and delivery of this instrument, duplicate unexecuted and unacknowledged pages of the counterparts may be discarded and the remaining pages assembled as one document.

SIGNATURE PAGE FOLLOWS

11/11/04

IN WITNESS WHEREOF, the undersigned have executed this instrument on December 18, 2006

GRANTOR:

KENRANES LTD.
a Hawaii corporation



By: Dorelle G. Betsill
Its: President

GRANTEE:

PILANI MAKAI INC.



By: Dwayne N. Betsill
Its: Vice-President

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STATE OF HAWAII

)
) SS.
)

COUNTY OF MAUI

On Dec. 18, 2006 before me personally appeared Doyle G. Betheil, to me personally known, who, being by me duly sworn, did say that he is the President of KENRANES LTD., a Hawaii corporation, and that said instrument was signed on behalf of said corporation, and that he/she acknowledged said instrument to be the free act and deed of said corporation.

Pamela Correa
(notary's signature)

Pamela Correa
(print/type name of notary)
Notary Public, State of Hawaii

My commission expires: 12-07-07

STATE OF HAWAII

)
) SS.
)

COUNTY OF MAUI

On Dec. 18, 2006 before me personally appeared Dwayne^N Betheil, to me personally known, who, being by me duly sworn, did say that he is the Vice-President of Piilani Makai Inc., a Hawaii corporation, and that said instrument was signed on behalf of said corporation, and that he acknowledged said instrument to be the free act and deed of said corporation.

Pamela Correa
(notary's signature)

Pamela Correa
(print/type name of notary)
Notary Public, State of Hawaii

My commission expires: 12-07-07

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EXHIBIT "A"

PARCEL FIRST:

DESCRIPTION
LOT 1
KA'ONO'ULU ESTATES, PHASE III

All of that certain parcel of land, being Lot 1 of the Ka'ono'ulu Estates, Phase III (the map thereof not being recorded), being a portion of Lot 167-A of the Ka'ono'ulu Estates - Phase I (the map thereof not being recorded), also being a portion of Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), situated at Kaonoulu (Kihel), Wailuku, Island and County of Maui, State of Hawaii and being more particularly described as follows:

Beginning at the Southeast corner of this parcel of land, on the Westerly boundary of Piilani Highway, F.A.P. No. RF-031-1(5), said point also being the Northeast corner of Lot 2 of said Ka'ono'ulu Estates, Phase III, the coordinates of said point of beginning referred to Government Survey Triangulation Station "PUU O KALI" being:

12,655.14 Feet North
22,097.07 Feet West

and running by azimuths measured clockwise from True South:

1. 76° 48' 00" 359.39 feet along said Lot 2 of the Ka'ono'ulu Estates, Phase III and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56) to a point on the East boundary of Lot 167-B (68-ft. wide roadway lot) of said Ka'ono'ulu Estates, Phase I;

Thence along said Lot 167-B (68-ft. wide roadway lot) of the Ka'ono'ulu Estates, Phase I, Lot 8 (68-ft. wide roadway lot) of said Ka'ono'ulu Estates, Phase III and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), on the arc of a curve to the left, concave South-westerly with a radius of 1934.00 feet, the chord azimuth and distance being:

2. 165° 38' 07" 424.58 feet;
3. 159° 20' 00" 49.19 feet along said Lot 8 (68-ft. wide roadway lot) of the Ka'ono'ulu Estates, Phase III,

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along the Easterly boundary of the Kenolio Road lot and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56);

Thence along the Southeasterly corner of the intersection of said Kenolio Road and Ho'opili Akau Street, on the arc of a curve to the right, concave Southeasterly with a radius of 30.00 feet, the chord azimuth and distance being:

- 4. 208° 19' 27" 45.28 feet;
- 5. 175° 42' 55" 179.83 feet along the Easterly end of Ho'opili Akau Street; along Lot 141 of said Ka'ono'ulu Estates - Phase I, File Plan 2075 and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56) to a point on the Southeasterly boundary of the Ka'ono'ulu Street lot;

Thence along said Southeasterly boundary of Ka'ono'ulu Street lot, on the arc of a curve to the right, concave Southeasterly with a radius of 3062.00 feet, the chord azimuth and distance being:

- 6. 254° 23' 44.5" 206.56 feet to a point of compound curvature;

Thence along the said Southeasterly boundary of said Ka'ono'ulu Street lot, on the arc of a curve to the right, concave Southwesterly with a radius of 50.00 feet, the chord azimuth and distance being:

- 7. 297° 54' 15.5" 66.36 feet to a point on the Southwesterly boundary of Lot 169 of said Ka'ono'ulu Estates - Phase I, File Plan 2075;
- 8. 339° 28' 48" 472.11 feet along said Lot 169 of the Ka'ono'ulu Estates - Phase I, File Plan 2075 and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56) to a point on the Westerly boundary of Pillani Highway, F.A.P. No. RF-031-1(5);

1000

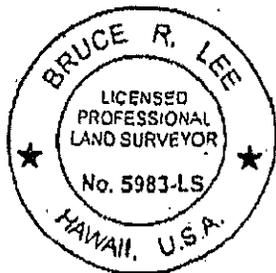
9. 346° 48' 00" 181.60 feet along said Westerly boundary of Piilani Highway, F.A.P. No. RF-031-1(5) to the point of beginning and containing an area of 5.171 Acres, more or less.

SUBJECT, HOWEVER to a restriction of vehicular access rights along the last 30.15 feet of course three (3) and the entire length of courses four (4), six (6), seven (7), eight (8) and nine (9) of the above described Lot 1.

SUBJECT, ALSO to existing Easement "E-28" (101 Square Feet) for electrical and telephone purposes in favor of Maui Electric Co. Ltd., as shown on said Ka'ono'ulu Estates - Phase I, File Plan 2075 and existing Easement "E" (15-ft. wide, 4,601 Square Feet) and Easement "F" (603 Square Feet) for landscaping purposes in favor of Ka'ono'ulu Homeowners Association, as shown on said Ka'ono'ulu Estates - Phase I, File Plan 2075.

Prepared by:

NEWCOMER-LEE
LAND SURVEYORS, INC., a Hawaii Corporation



This description was prepared from a survey on the ground performed by me or under my direct supervision.

A handwritten signature in cursive script that reads "Bruce R. Lee".

Bruce R. Lee
Licensed Professional Land
Surveyor Certificate No. 5983-LS

9/29/98
BETSILL
File 97-4032
jobo/4032-L01.wps



R-419

STATE OF HAWAII
BUREAU OF CONVEYANCES
RECORDED
APR 06, 2006 08:01 AM
Doc No(s) 2006-064642



/s/ CARL T. WATANABE
REGISTRAR OF CONVEYANCES

CTax (30): \$6210.80

20 1/2 Z12

LAND COURT SYSTEM

REGULAR SYSTEM

After Recordation Return by Mail (✓) Pickup () To:

RDD LLC
635 KENOLIO ROAD
KIHEI HI 96753

TG: 2005-67229 A 2060287A

TGE: AS 2041172 R511
Mitchell S. Ota

TOTAL NUMBER OF PAGES: (11)

T.M.K. No. (2) 3-9-001-158

WARRANTY DEED

KNOW ALL MEN BY THESE PRESENTS:

That KENRANES LTD., a Hawaii corporation, whose address is 635 Kenolio Road, Kihei, Maui, Hawaii 96753, hereafter the "Grantor", for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) and other good and valuable consideration to Grantor paid by RDD LLC, a Hawaii limited liability company, whose address is 635 Kenolio Road, Kihei, Maui, Hawaii 96753, hereafter the "Grantee", receipt of which is hereby acknowledged, does hereby grant, bargain, sell and convey all of that certain property more fully described in Exhibit "A" hereto attached and incorporated herein by reference, including any fixtures, appliances, furniture and/or items of personal property itemized therein, unto the Grantee, as Tenant in Severalty, its successors and assigns, forever.

AND the reversions, remainders, rents, issues and profits thereof and all of the estate, right, title and interest of the Grantor, both at law and in equity, therein and thereto.

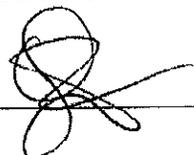
TO HAVE AND TO HOLD the same together with all buildings, improvements, tenements, rights, easements, hereditaments, privileges and appurtenances thereunto belonging or appertaining, or held and enjoyed in connection therewith unto the Grantee according to the tenancy hereinabove set forth, absolutely and in fee simple, forever.

AND the Grantor hereby covenants with the Grantee that the Grantor is lawfully seised in fee simple of the described real and personal property and that the Grantor has good right to convey the same as aforesaid; that the property is free and clear of all encumbrances, except as may be described in Exhibit "A"; and that the Grantor will WARRANT AND DEFEND the same unto the Grantee, forever, against the lawful claims and demands of all persons, except as aforesaid.

It is understood and agreed that the term "property" shall be deemed to mean and include the property specifically described in Exhibit "A", all buildings and improvements thereon (including any personal property described in Exhibit "A") and all rights, easements, privileges and appurtenances in connection therewith, that the terms "Grantor" and "Grantee", as and when used herein, or any pronouns used in place thereof, shall mean and include the masculine and/or feminine, the singular or plural number, individuals, firms or corporations, that the rights and obligations of the Grantor and Grantee shall be binding upon and inure to the benefit of their respective estates, heirs, personal representatives, successors in trust and assigns and that where there is more than one Grantor or Grantee, any covenants of the respective party shall be and for all purposes deemed to be joint and several.

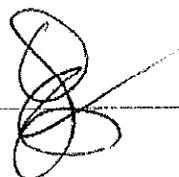
IN WITNESS WHEREOF, the undersigned have executed this instrument on March 27, 2006.

KENRANES I.T.D.

By  _____
Its

"Grantor"

RDD LLC

By  _____
Its

"Grantee"

STATE OF HAWAII

)

) SS.

COUNTY OF MAUI

)

On March 27, 2006, before me personally appeared Doyle Betzall, personally known to me (or proved to me on the basis of satisfactory evidence) to be the President of KENRANES LTD., and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person(s) acted, executed the instrument.

es

Pamela Correa
(notary's signature)
Pamela Correa
(print/type name of notary)
Notary Public, State of Hawaii

My commission expires: 12-07-07

STATE OF HAWAII

)

) SS.

COUNTY OF MAUI

)

On March 27, 2006, before me personally appeared Doyle Betzall, personally known to me (or proved to me on the basis of satisfactory evidence) to be the Member/Manager of RDD LLC, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person(s) acted, executed the instrument.

es

Pamela Correa
(notary's signature)
Pamela Correa
(print/type name of notary)
Notary Public, State of Hawaii

My commission expires: 12-07-07

EXHIBIT "A"

All of that certain parcel of land (being portion(s) of the land(s) described in and covered by Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56)) situate, lying and being at Kaonoulu, (Kihci), Wailuku, Makawao, Island and County of Maui, State of Hawaii, being LOT 2 of KA'ONO'ULU ESTATES, PHASE III (the map thereof not being recorded), being a portion of Lot 167-A of the Ka'ono'ulu Estates - Phase I (the map thereof not being recorded), and thus bounded and described:

Beginning at the Northeast corner of this parcel of land, on the Westerly boundary of Piilani Highway, F.A.P. No. RF-031-1(5), said point also being the Southeast corner of Lot 1 of said Ka'ono'ulu Estates, Phase III, the coordinates of said point of beginning referred to Government Survey Triangulation Station "PUU O Kali" being:

12,655.14 Feet North
22,097.07 Feet West

and running by azimuths measured clockwise from True South:

1.	346°	48'	00"	259.46	feet along said Westerly boundary of Piilani Highway, F.A.P. No. RF-031-1(5);
2.	76°	48'	00"	10.00	feet along same;
3.	346°	48'	00"	71.85	feet along same to the Northeast corner of Lot 166-A of said Ka'ono'ulu Estates - Phase I;
4.	66°	20'	00"	54.19	feet along said Lot 166-A of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56);

Thence along said Lot 166-A of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), on the arc of a curve to the right, concave Northwesterly with a radius of 1225.00 feet, the chord azimuth and distance being:

5. 74° 42' 13" 356.65 feet to a point on the Easterly boundary of Lot 167-B (68 ft. wide roadway lot) of said Ka'ono'ulu Estates - Phase I;

Thence along said Lot 167-B (68 ft. roadway lot) of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), on the arc of a curve to the right, concave Easterly with a radius of 2366.00 feet, the chord azimuth and distance being:

6. 181° 12' 39" 23.67 feet to a point of reverse curvature;

Thence along said Lot 167-B (68 ft. roadway lot) of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), on the arc of a curve to the right, concave Westerly with a radius of 1299.85 feet, the chord azimuth and distance being:

7. 178° 36' 30" 131.15 feet;

8. 175° 43' 00" 77.24 feet along said Lot 167-B (68 ft. wide roadway lot) of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56);

Thence along said Lot 167-B (68 ft. roadway lot) of the Ka'ono'ulu Estates - Phase I and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56), on the arc of a curve to the right, concave Westerly with a radius of 1934.00 feet, the chord azimuth and distance being:

- | | | | | | |
|-----|------|-----|-----|--------|--|
| 9. | 173° | 49' | 37" | 127.55 | feet to the Southwest corner of said Lot 1 of the Ka'ono'ulu Estates, Phase III; |
| 10. | 256° | 48' | 00" | 359.39 | feet along said Lot 1 of the Ka'ono'ulu Estates, Phase III and along the remainder of said Royal Patent 7447, Land Commission Award 3237, Part 2 to Hewahewa (Certificate of Boundaries No. 56) to the point of beginning and containing an area of 3.103 acres, more or less. |

Together with Easement "7" as shown on Subdivision Map dated July 10, 2000, prepared by BRUCE R. LEE, Licensed Professional Land Surveyor, filed as LUCA File No. 3.1729.

Together with a non-exclusive access easement, as granted by KENRANES, LTD., a Hawaii corporation in GRANT OF NON-EXCLUSIVE ACCESS EASEMENT dated November 5, 2003, but effective as of October 12, 2003, recorded as Document No. 2003-254169; and subject to the terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained therein.

BEING THE PREMISES ACQUIRED BY LIMITED WARRANTY DEED

GRANTOR : JULIE A. KEAN, Trustee under The Julie A. Kean
Trust dated February 18, 1999

GRANTEE : KENRANES, LTD., a Hawaii corporation

DATED : November 5, 2003

RECORDED : Document No. 2003-254170

SUBJECT, HOWEVER, TO THE FOLLOWING

1. Real Property Taxes, Second Installment, Fiscal Year July 1, 2005
- June 30, 2006. (see tax statement attached)

Tax Key: (2) 3-9-001-158 Area Assessed: 3.103 acres

Land Classification: APARTMENT

Street Address: LOT 2, KA'ONO'ULU ESTATES, MAUI, HAWAII

2. Reservation in favor of the State of Hawaii of all mineral and metallic mines.

3. CERTIFICATION OF LONG-TERM RESIDENTIAL USE

DATED : September 28, 1989
RECORDED : Liber 23724 Page 508
BY : HORITA-MAUI, INC.

4. NOTICE dated June 18, 1990, recorded as Document No. 90-097888;
re: Kihei Wastewater Treatment Capacity.

5. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : UNILATERAL AGREEMENT AND DECLARATION FOR
 CONDITIONAL ZONING

DATED : October 18, 1991
RECORDED : Document No. 91-153553

6. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : ACKNOWLEDGEMENT

DATED : October 5, 1990
RECORDED : Document No. 91-158124
PARTIES : HORITA-MAUI, INC. and the COUNTY OF MAUI,
Department of Public Works

7. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : SUBDIVISION AGREEMENT (LARGE LOTS)

DATED : November 15, 1991
RECORDED : Document No. 91-168169
PARTIES : HORITA-MAUI, INC., a Hawaii corporation, and the
COUNTY OF MAUI

8. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : DECLARATION OF PROTECTIVE COVENANTS FOR KA ONO ULU
ESTATES

DATED : February 27, 1992
RECORDED : Document No. 92-035453

ASSIGNMENT OF RIGHTS AND OTHER PROPERTY dated August 28, 1996,
recorded as Document No. 99-109344.

9. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : SUBDIVISION AGREEMENT (LARGE LOTS)

DATED : July 3, 1997

RECORDED : Document No. 97-101757

PARTIES : KENOLIO RANCH ESTATES and the COUNTY OF MAUI

10. The terms and provisions, including the failure to comply with any covenants, conditions and reservations, contained in the following:

INSTRUMENT : WARRANTY DEED TO TRUST

DATED : March 30, 1999

RECORDED : Document No. 99-056432

11. DESIGNATION OF EASEMENT "D"

PURPOSE : drainage purpose

SHOWN : on the survey map prepared by BRUCE R. LEE, Licensed Professional Land Surveyor, dated October 28, 1998, as set forth in instrument dated March 30, 1999, recorded as Document No. 99-056432

12. DESIGNATION OF EASEMENT "C"

PURPOSE : waterline purposes

SHOWN : on the survey map prepared by BRUCE R. LEE, Licensed Professional Land Surveyor, dated October 28, 1998, as set forth in instrument dated March 30, 1999, recorded as Document No. 99-056432

13. Restriction of vehicular access rights along the entire length of courses one (1) two (2) and three (3) of the land described herein, as per amended survey map prepared by Bruce R. Lee, Licensed Professional Land Surveyor, dated July 10, 2000.

14. FIRST MORTGAGE, SECURITY AGREEMENT AND FINANCING STATEMENT

LOAN/ACCOUNT NO. 0281928.KYS

MORTGAGOR : KENRANES, LTD., A HAWAII CORPORATION

MORTGAGEE : FIRST HAWAIIAN BANK, a Hawaii corporation

DATED : November 12, 2003

RECORDED : Document No. 2003-254171 .

AMOUNT : \$476,000.00

15. Any lien (or claim of lien) for services, labor or material arising from an improvement or work related to the land described in Schedule C herein.

-Note:- Before issuance of an ALTA policy, verification is required that there is no renovation or construction in progress at the present time, nor has there been any renovation or construction during the past year, nor has any material been delivered to the site for purposes of renovation or construction in the past year.

END OF EXHIBIT "A"



APPENDIX B
ZONING AND FLOOD CONFIRMATION

COUNTY OF MAUI
DEPARTMENT OF PLANNING

ZONING AND FLOOD CONFIRMATION REQUEST FORM JAN 18 P2 55

APPLICANT: BRETT DAVIS PHONE NO: 808-242-1955
ADDRESS: 1955 MAIN STREET, SUITE 200 WAILUKU, HI 96793
PROJECT NAME: KA'ONO'ULU Estates Phase III
ADDRESS AND/OR LOCATION: KA'ONO'ULU Estates Phase III
TMK NUMBER(S): (2) 3-9-001:158

ZONING INFORMATION

STATE LAND USE URBAN COMMUNITY PLAN MF
COUNTY ZONING A-1 SPECIAL DISTRICT SMA
OTHER _____

FLOOD INFORMATION

FLOOD HAZARD AREA* ZONE C
BASE FLOOD ELEVATION N/A mean sea level, 1929 National
Geodetic Vertical Datum or for Flood Zone A0, FLOOD DEPTH N/A
feet.

FLOODWAY [] Yes or [X] No

FLOOD DEVELOPMENT PERMIT IS REQUIRED [] Yes or [X] No

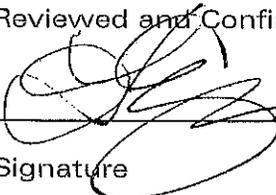
* For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.

FOR COUNTY USE ONLY

REMARKS/COMMENTS: _____

- Additional information required.
- Information submitted is correct.
- Correction has been made and initialed.

Reviewed and Confirmed by:



Signature

1/18/07

Date

COUNTY OF MAUI
DEPARTMENT OF PLANNING

ZONING AND FLOOD CONFIRMATION REQUEST FORM ⁰⁷ JAN 18 P2:55

APPLICANT: BRETT DAVIS PHONE NO.: 242-1955
ADDRESS: 1955 MAIN Street, Suite 200 WAICUVEH1 96793
PROJECT NAME: KA'ONO'ULU Estates Phase III
ADDRESS AND/OR LOCATION: KAONOULU Estates Phase III
TMK NUMBER(S): (2) 3-9-0018157

ZONING INFORMATION

STATE LAND USE URBAN COMMUNITY PLAN B
COUNTY ZONING R-1, A-1 SPECIAL DISTRICT SMA
OTHER _____

FLOOD INFORMATION

FLOOD HAZARD AREA* ZONE C
BASE FLOOD ELEVATION N/A mean sea level, 1929 National
Geodetic Vertical Datum or for Flood Zone A0, FLOOD DEPTH N/A
feet.

FLOODWAY [] Yes or [X] No

FLOOD DEVELOPMENT PERMIT IS REQUIRED [] Yes or [X] No

* For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.

FOR COUNTY USE ONLY

REMARKS/COMMENTS: _____

- Additional information required.
- Information submitted is correct.
- Correction has been made and initialed.

Reviewed and Confirmed by:

[Signature]
Signature

1/18/07
Date



APPENDIX C
PRELIMINARY ENGINEERING AND DRAINAGE REPORT

PRELIMINARY ENGINEERING REPORT

FOR

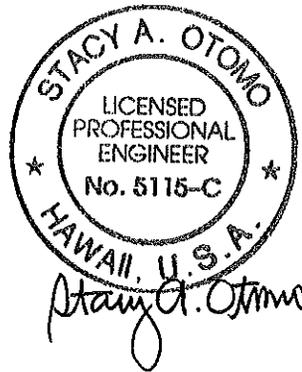
KA'ONO'ULU - PHASE VI

Kihei, Maui, Hawaii

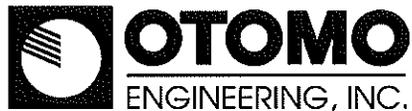
T.M.K.: (2) 3-9-001: 157 & 158

Prepared For:

**Kenranes, Ltd.
635 Kenolio Road
Kihei, Hawaii 96753**



Prepared By:



CONSULTING CIVIL ENGINEERS
305 SOUTH HIGH STREET, SUITE 102
WAILUKU, MAUI, HAWAII 96793
PHONE: (808) 242-0032
FAX: (808) 242-5779

November 2007

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3 SOIL SURVEY MAP

4 FLOOD MAP (BASED ON 5/8/03 LOMR APPROVAL)

5 1-14-03 FEMA LETTER

**PRELIMINARY ENGINEERING REPORT
FOR
KA'ONO'ULU - PHASE VI
T.M.K.: (2) 3-9-001: 157 & 158**

1.0 INTRODUCTION

The purpose of this report is to provide information on the existing infrastructure which will be servicing the proposed project. It will also evaluate the adequacy of the existing infrastructure and anticipated improvements which may be required for the proposed project.

The subject properties are identified as T.M.K.: (2) 3-9-001: 157 and 158. It is also Lots 1 and 2 of Kaonoulu Estates - Phase III. Parcel 157 contains an area of 5.171 acres and parcel 158 contains 3.103 acres. Both parcels will be consolidated and the total project area will contain 8.274 acres. The project site is bordered by Kaonoulu Street and a residential lot to the north, Piilani Highway to the east, Kulanihako'i Gulch to the south and the proposed North-South Collector Road to the west.

The development plan is to construct multi-family units consisting of 56 one-bedroom units, 84 two-bedroom units, and 26 three-bedroom units for a total of 166 units. Associated improvements include utility connections, paved parking areas, offsite roadway improvements, and landscaping.

The project site is partially developed with offices being used by Betsill Brothers Construction and for material stockpiling. The majority of the site is undeveloped and covered with grass and weeds.

2.0 EXISTING INFRASTRUCTURE

2.1 ROADWAYS

North Kihei Road is the arterial that provides access to the Kihei region from West Maui and the Wailuku area. Mokulele Highway provides access from the Kahului and Upcountry areas. The Mokulele Highway widening project, which began at the Puunene Avenue-Kuihelani Highway intersection, is nearing completion with its connection at Piilani Highway. North Kihei Road is a two-lane roadway and Mokulele Highway will be a four-lane highway upon its completion. Both of these roadways are under the control of the State Department of Transportation.

Piilani Highway is the primary arterial for South Maui. It is a four-lane highway.

South Kihei Road is a two-lane roadway which parallels Piilani Highway along the coastline and serves most of the commercial and residential communities in the Kihei area.

Uwapo Road, Ohukai Road, Kaonoulu Street and Kulanihako Street are the nearby roadways running in the east-west direction in the vicinity of the project site. Uwapo Road and Ohukai Road are signalized at its intersection with Piilani Highway. These roadways are owned by the County.

The North-South Collector Road is located between Piilani Highway and South Kihei Road. Portions of this roadway are improved and the County of Maui is in the planning stages of improving additional sections of the North-South Collector Road.

Kenolio Road is a segment of the proposed North-South Collector Road. It is a two-lane roadway which is owned by the County and located between Uwapo Road and Kaonoulu Street. It is improved from Uwapo Road to the northwest edge of the project site.

2.2 DRAINAGE

The elevation on the site ranges from 47 feet above mean sea level at the northeastern corner of the site to 16 feet at the southwestern corner, with a slope averaging approximately 2.8%. According to Panel No. 150003 0265C of the Flood Insurance Rate Maps, with a revised date of May 8, 2003, the project site is situated in Flood Zones A, A4, B and C (See Exhibit 4). Flood Zone A is designated as areas of 100-year flood; base flood elevations and flood hazard factors not determined. Flood Zone A4 is designated as areas of 100-year flood; base flood elevations and flood hazard factors determined. Flood Zone B is designated as areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. Flood Zone C is designated as areas of minimal flooding.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soils within the project site are classified as Alae sandy loam (AaB) and Waiakoa extremely stony silty

clay loam (WID2) - (See Exhibit 3). Alae sandy loam is characterized as having slow runoff and a slight erosion hazard. Waiakoa extremely stony silty clay loam is characterized as having medium runoff and a severe erosion hazard.

There are two gulches which traverse through the project site. The first is an unnamed gulch which conveys runoff across Piilani Highway from double 102-inch culverts. This gulch starts near the intersection of Kaonoulu Street and Piilani Highway and traverses diagonally across the project site. As part of the Kaonoulu Estates - Phase IV Subdivision, a 16'-0" x 6'-6" concrete box culvert was installed to convey runoff from the unnamed gulch, across the North-South Collector Road and discharging into Kulanihakoi Gulch.

The second gulch is Kulanihakoi Gulch, which is a major drainageway. It traverses near the southern boundary of the site from an existing bridge at Piilani Highway to the four existing 6'-0" x 4'-0" concrete box culverts at its crossing on South Kihei Road. As part of the Kaonoulu Estates - Phase IV Subdivision, a portion of Kulanihakoi Gulch was improved with a boulder lining and geotextile invert. A detention basin was also created mauka of South Kihei Road.

According to the "Drainage and Soil Erosion Control Report for Ka'ono'ulu Estates-Phase I," revised July, 1990 by Warren S. Unemori Engineering, Inc. (WSUE), the 100-year storm runoff in the unnamed gulch is 1,109 cfs and 10,860 cfs in Kulanihakoi Gulch.

Presently, runoff from the project site sheet flows in an east to west direction and into the unnamed gulch or onto the North-South Collector Road. The onsite runoff eventually flows into Kulanihakoi Gulch and ultimately flows into the ocean. It is estimated that the present 50-year, 1-hour runoff from the project site is 7.59 cfs.

2.3 SEWER

There is an existing 8-inch sewerline on Ho'opili Akau Street which terminates with an 8-inch stubout at the northwest corner of the property. The 8-inch stubout connects to an 8-inch sewer main on Ho'opili Akau Street, then to an 10-inch sewerline on Alulike Street, to a 10-inch sewerline on Kaonoulu Street, and to a 27-inch sewer main on South Kihei Road.

As part of the Kaonoulu Estates - Phase IV Subdivision, a 10-inch sewer stubout was provided within a utility easement on Lot 51 for the subject project.

The existing 10-inch sewerline connects to an existing 10-inch sewerline along Alulike Street which connects to the 10-inch sewerline mentioned above.

Sewer from the project site will flow to an series of collection systems and pump stations along South Kihei Road, which transports the wastewater to the main sewer pump station located in Kalama Park. Wastewater collected from the Kihei area is transported to the Kihei Wastewater Reclamation Facility located above Piilani Highway and south of the Elleair Golf Course.

2.4 WATER

Domestic water and fire flow will be provided by the County's water system. There is an existing 18-inch waterline which runs diagonally across the northwest corner of the project site and along the North-South Collector Road. The 36-inch Central Maui Waterline runs diagonally across the southeast corner of the project site, then along the North-South Collector Road.

A 2.0 million gallon reservoir, located approximately a mile above Piilani Highway provides storage for the area. The source for this water system is from the Central Maui Source.

2.5 ELECTRIC, TELEPHONE AND CABLE TV

There are existing overhead and telephone lines which are located along the North-South Collector Road. The surrounding Kaonoulu Estates and Piilani Village Subdivisions have existing underground electrical distribution systems which can be extended to serve the project.

3.0 ANTICIPATED INFRASTRUCTURE IMPROVEMENTS

3.1 ROADWAYS

Access to the project will be from the terminus of Ho'opili Akau Street and the North-South Collector Road. The adjoining half of the North-South Collector Road will be improved to County standards for roadways within the urban district. It has an existing right-of-way width of 68 feet. The improvements will be coordinated with the County's preliminary design for the North-South Collector Road project.

The interior project driveways will have a minimum width of 24 feet. The onsite parking stalls will meet the number and size requirements set forth by

the Maui County Code. The geometrics and alignment will be coordinated with the Fire Department.

The following recommendations were presented by Phillip Rowell and Associates in the Traffic Impact Analysis for Kaonoulu Residential Subdivision:

“The North-South Collector Road divert traffic from Piilani Highway and therefore have a positive impact on traffic flows along the highway. It is understood that development of the North-South Collector is on hold pending an update of the long-range plan for Kihei. One of the objectives of the update will be to determine whether the North-South Collector should be two or four lanes wide. In the meantime, the viability of providing at least a two-lane roadway connection between Kaonoulu Street and Kulanihakoi Road using an at-grade crossing of the gulch south of the study project should be investigated.

The developer should be responsible for a pro rata share of future traffic improvements at the intersection of Piilani Highway at Kulanihakoi Road. As shown on Table 10 of this report, the project's pro rata share, based on anticipated traffic growth, is between 3.9% and 4.3%.”

3.2 DRAINAGE

A concrete box culvert will be installed from the outlet of the double 102-inch culverts at Piilani Highway, through the project site and connect to the existing 16'-0" x 6'-6" concrete box culvert on the site. The proposed concrete box culvert will meander through the site to avoid conflicts with any structures or improvements.

As part of the Kaonoulu Estates - Phase IV Subdivision, Lot 6 and portions of Lots 4 and 5 of the Kaonoulu Estates - Phase III was used for the construction of a detention basin. According to the “Drainage and Soil Erosion Control Report for Ka’ono’ulu Estates - Phase IV,” prepared by Otomo Engineering, Inc., with a revision date of August 2001, the detention basin was designed to accommodate the increase in runoff from the Phase IV project site, the 140-unit multifamily site, and a proposed commercial development. The previous 140-unit multi-family site and commercial development is now the site of the proposed project. The report also states that the detention basin

was sized to accommodate 198,700 cubic feet of storage, of which 60,000 cubic feet of storage was provided for this project.

The post development runoff from the project site is estimated to be 23.16 cfs, with an increase of 15.57 cfs over existing conditions. Onsite runoff will be collected by catch basins located at appropriate intervals along the interior roadways and landscaped areas. Drainlines from the catch basins will convey the runoff to an outlet in Kulanihakoi Gulch. As noted herein, there is storage volume within the existing detention basin which was created for this project.

Any structures located within a flood zone other than Zone C will be required to meet the County's requirements for development within a flood zone. A Best Management Practices plan which will be submitted as part of the grading permit. In addition a NPDES permit for construction activities will be required since the area of grading is greater than one acre. The NPDES permit will be secured before the issuance of the grading permit.

The proposed drainage system will be designed in accordance with Chapter 4, "Rules for the Design of Storm Drainage Facilities in the County of Maui."

3.3 SEWER

The proposed 166-unit multi-family development will generate approximately 42,330 gallons per day of wastewater (See Appendix C). The onsite sewerage collection system will be designed to accommodate this flow. The existing collection and transmission systems, pumping facilities and treatment plant have the capacity to handle the anticipated wastewater generated by the development.

According to the Wastewater Reclamation Division, County of Maui, the Kihei Wastewater Reclamation Facility has a capacity of 8.0 million gallons a day (mgd). As of September 1, 2006, the allocated wastewater flow was 6.6 mgd and the actual daily flow was estimated at 4.6 mgd.

The onsite sewer system shall consist of a gravity flow system which will connect to the existing 8-inch sewerline on Ho'opili Akau Street and the existing 10-inch sewerline at the east end of Alulike Street. The gravity system will eventually connect to the existing sewer system on South Kihei Road.

According to the Wastewater Assessment areas and fees set by the County of Maui, the subject project is located within the Kihei Assessment Area 3. At the present time, the County is assessing sewer fees of \$1,743.00 per

unit for the collection system upgrade and \$1,185.75 per unit for the treatment plant facility expansion for multi-family development.

3.4 WATER

In accordance with the Department of Water Supply's Domestic Consumption Guidelines for multi-family residential development, the average daily demand for the 166 unit project is approximately 92,960 gallons per day (See Appendix B). The project will utilize low-flow fixtures as part of the water conservation measure. Fire flow demand for multi-family residential development is 2,000 gallons per minute for a 2 hour duration. Fire hydrants will be installed with a maximum spacing of 250 feet.

The project will connect to the existing 18-inch waterline along the North-South Collector Road, which is capable of providing water service and fire flow for the project. The required water meter size will be determined at the time the building permit is applied for. The Department of Water Supply (DWS) cannot guarantee water for the project. A water meter can be applied for and secured after the required improvements are installed, inspected and accepted by the DWS.

3.5 ELECTRIC, TELEPHONE AND CABLE TV

The proposed electrical, telephone and cable TV distribution systems for the subject project will be installed underground from the existing facilities along the North-South Collector Road or from the adjacent developments. Street lights will be within the project site at intervals to be determined by the electrical engineer. All lighting will be shielded and faced downward.

APPENDIX A
HYDROLOGIC CALCULATIONS

Hydrologic Calculations

Purpose: Determine the increase in onsite surface runoff from the development of the proposed project based on a 50-year storm.

A. Determine the Runoff Coefficient (C):

EXISTING CONDITIONS:

Infiltration (Medium)	= 0.07
Relief (Flat)	= 0.00
Vegetal Cover (Good)	= 0.03
Development Type (Open)	= <u>0.15</u>
C	= 0.25

DEVELOPED CONDITIONS:

ROOF AREAS:

Infiltration (Negligible)	= 0.20
Relief (Hilly)	= 0.06
Vegetal Cover (None)	= 0.07
Development Type (Roof)	= <u>0.55</u>
C	= 0.88

PAVED AREAS:

Infiltration (Negligible)	= 0.20
Relief (Flat)	= 0.00
Vegetal Cover (None)	= 0.07
Development Type (Pavement)	= <u>0.55</u>
C	= 0.82

LANDSCAPE AREAS:

Infiltration (Medium)	= 0.07
Relief (Flat)	= 0.00
Vegetal Cover (Good)	= 0.03
Development Type (Open)	= <u>0.15</u>
C	= 0.25

DEVELOPED CONDITIONS:

Paved Area	= 2.75 Acres
Roof Area	= 2.33 Acres
Landscaped Area	= 3.19 acres
WEIGHTED C	= 0.62

- B. Determine the 50-year 1-hour rainfall:

$$i_{50} = 2.2 \text{ inches}$$

Adjust for time of concentration to compute Rainfall Intensity (I):

Existing Condition:

$$\begin{aligned} T_c &= 19 \text{ minutes} \\ I &= 3.67 \text{ inches/hour} \end{aligned}$$

Developed Condition:

$$\begin{aligned} T_c &= 11 \text{ minutes} \\ I &= 4.51 \text{ inches/hour} \end{aligned}$$

- C. Drainage Area (A) = 8.274 Acres
- D. Compute the 50-year storm runoff volume (Q):

$$\mathbf{Q = CIA}$$

Existing Conditions:

$$\begin{aligned} Q &= (0.25)(3.67)(8.274) \\ &= 7.59 \text{ cfs} \end{aligned}$$

Developed Conditions:

$$\begin{aligned} Q &= (0.62)(4.51)(8.274) \\ &= 23.16 \text{ cfs} \end{aligned}$$

The increase in runoff due to the proposed development is $23.16 - 7.59 = 15.57$ cfs.

Hydrograph Plot

English

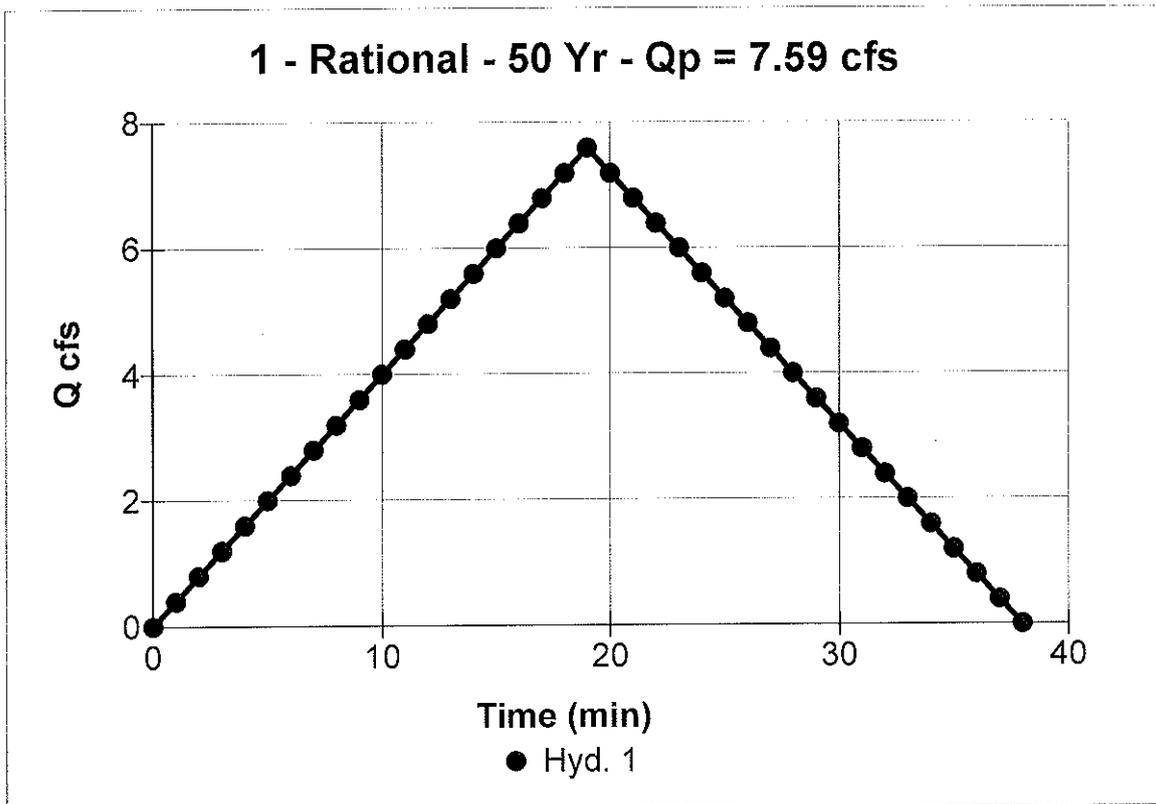
Hyd. No. 1

KAONOULU - PHASE VI EXISTING CONDITION

Hydrograph type = Rational
Storm frequency = 50 yrs
Drainage area = 8.3 ac
Intensity = 3.67 in
I-D-F Curve = 2-2.IDF

Peak discharge = 7.59 cfs
Time interval = 1 min
Runoff coeff. = 0.25
Time of conc. (Tc) = 19 min
Reced. limb factor = 1

Total Volume = 8,652 cuft



Hydrograph Plot

English

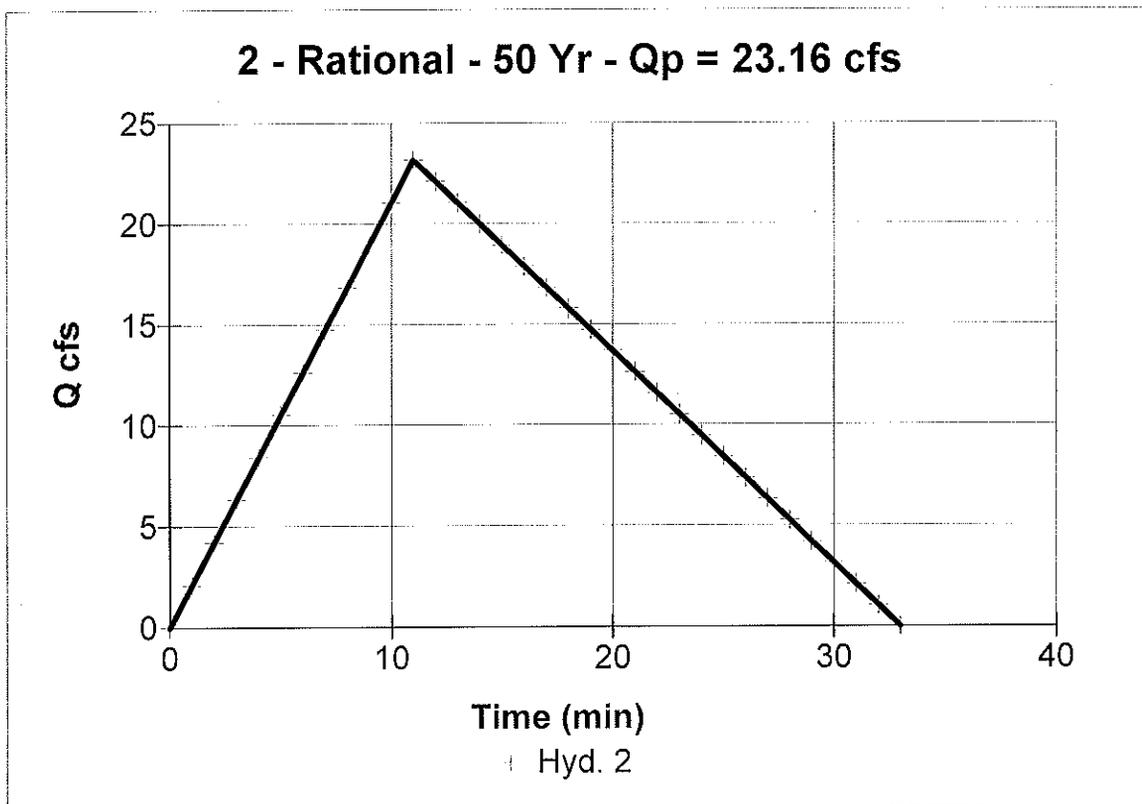
Hyd. No. 2

KAONOULU - PHASE VI DEVELOPED CONDITION

Hydrograph type = Rational
Storm frequency = 50 yrs
Drainage area = 8.3 ac
Intensity = 4.51 in
I-D-F Curve = 2-2.IDF

Peak discharge = 23.16 cfs
Time interval = 1 min
Runoff coeff. = 0.62
Time of conc. (Tc) = 11 min
Reced. limb factor = 2

Total Volume = 22,927 cuft



APPENDIX B
WATER DEMAND CALCULATIONS

WATER DEMAND CALCULATIONS

Per 2002 Water System Standards:

Average Daily Demand (ADD) = 560 gallons per unit or 5,000 gallons per acre

ADD = (560 gallons/unit) x (166 units) = 92,960 gallons per day

ADD = (5,000 gallons/acre) X (8.274 acres) = 41,370 gallons per day

Average Daily Demand is 92,960 gallons (Greater of the two consumption)

APPENDIX C
WASTEWATER CALCULATIONS

WASTEWATER CALCULATIONS

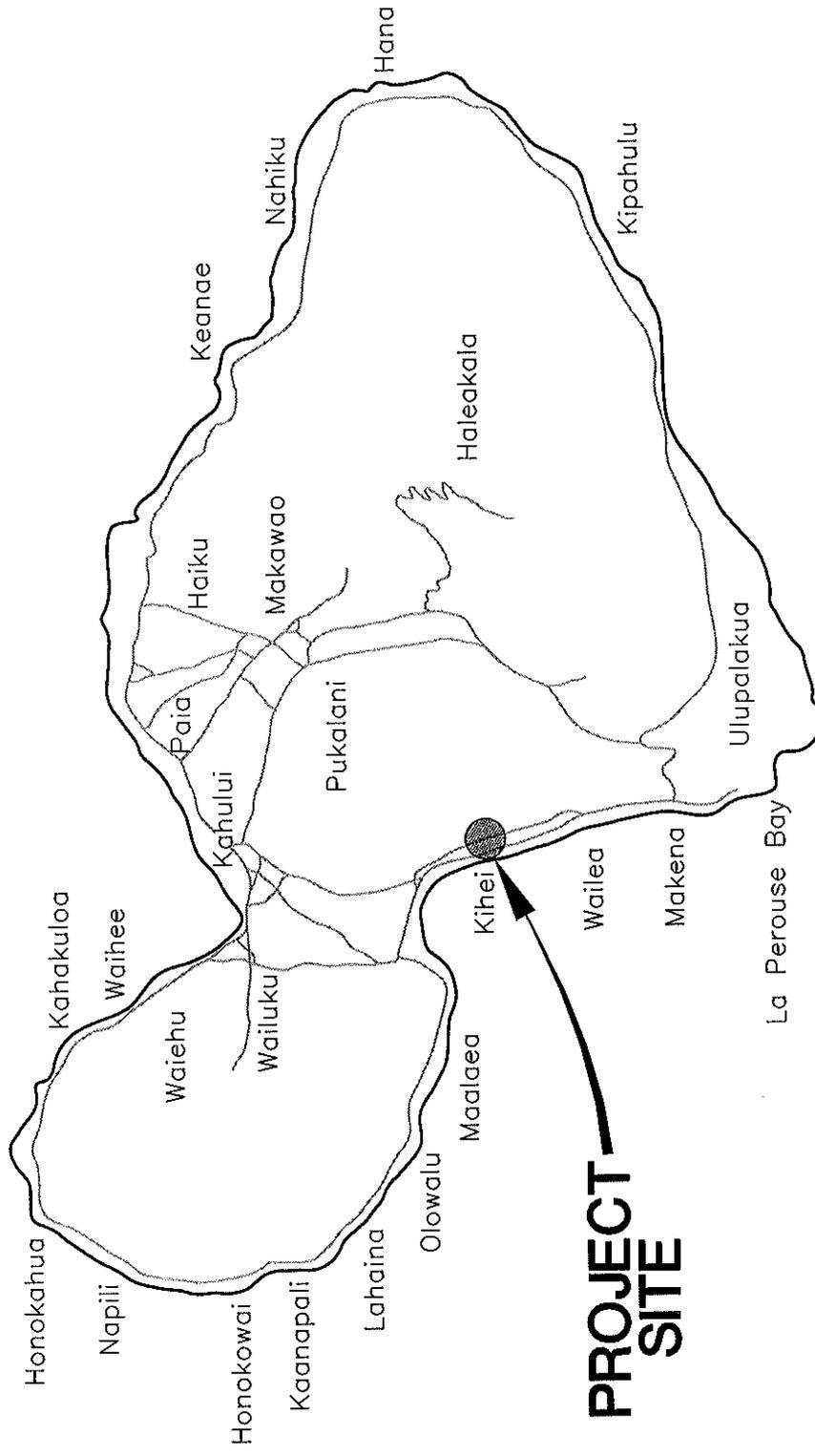
Per the 1993 Wastewater Flow Standards:

Wastewater Contribution for a Multi-Family Unit is 255 gallons/day/unit

Contribution = (166 units) x (255 gallons/unit/day) = 42,330 gallons per day

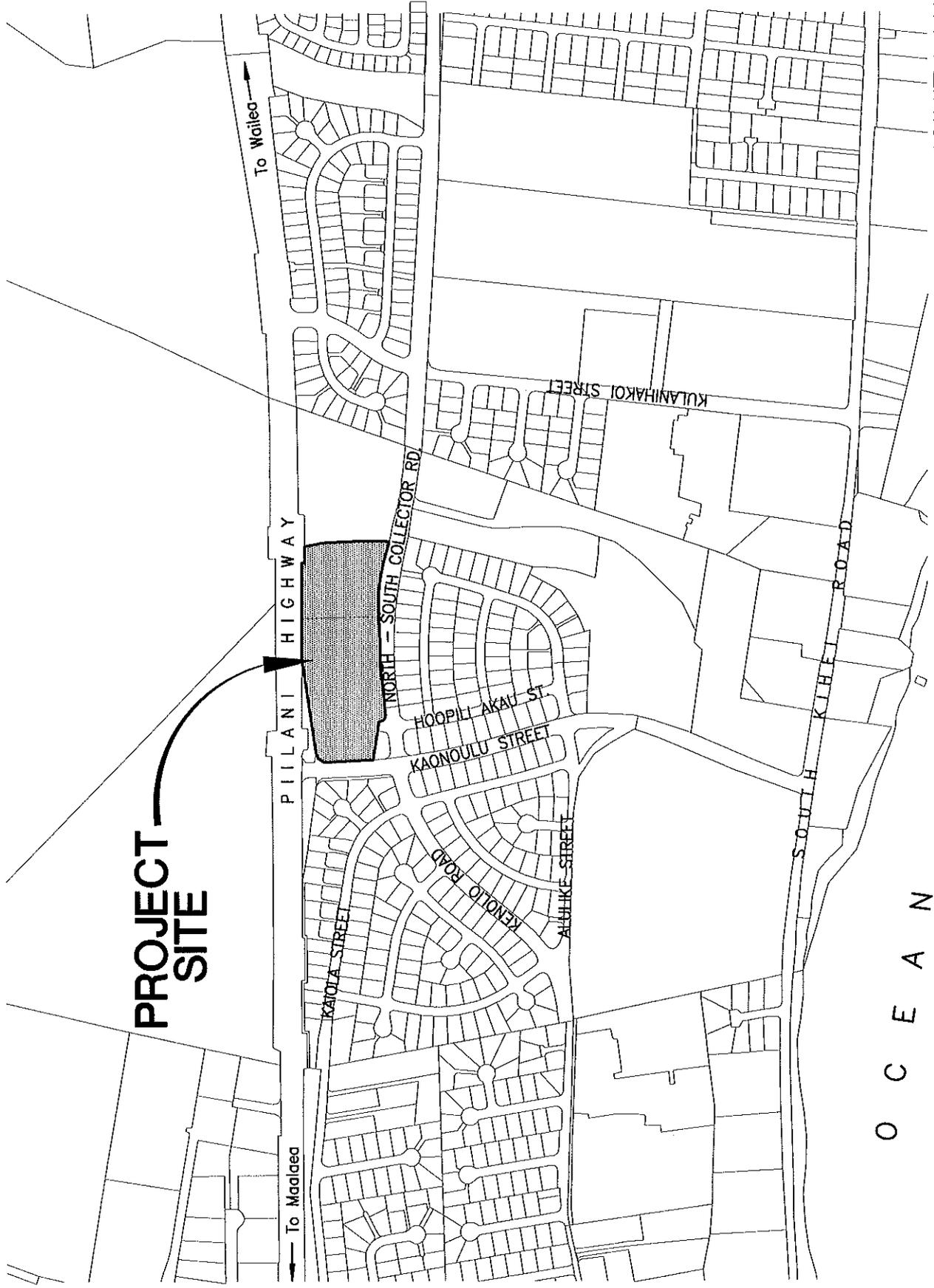
EXHIBITS

- 1 Location Map**
- 2 Vicinity Map**
- 3 Soil Survey Map**
- 4 Flood Insurance Rate Map**
- 5 1-14-03 FEMA Letter**

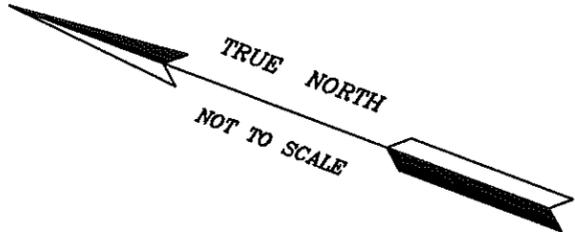


ISLAND OF MAUI
NOT TO SCALE

**PROJECT
SITE**



VICINITY MAP
EXHIBIT 2



TO MAALAEA

PIILANI HIGHWAY

TO WAILEA

KA'ONO'ULU STREET

KENOLIO ROAD

NORTH-SOUTH COLLECTOR ROAD

FLOOD ZONE C

FLOOD ZONE A

FLOOD ZONE B

FLOOD ZONE A4

**EXHIBIT 4
FLOOD MAP**



Federal Emergency Management Agency

Washington, D.C. 20472

JAN 14 2003

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable James H. Apana
Mayor, County of Maui
200 South High Street
Wailuku, HI 96793

IN REPLY REFER TO:

Case No.: 03-09-0144P

Follows Conditional

Case No.: 99-09-1283R

Community Name: Maui County, HI

Community No.: 150003

Effective Date of **MAY 08 2003**

This Revision:

Dear Mayor Apana:

The Flood Insurance Study report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel(s) revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed which provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Chief, National Flood Insurance Program Branch, Flood Insurance and Mitigation Division of the Federal Emergency Management Agency (FEMA) in Oakland, California, at (510) 627-7184, or the FEMA Map Assistance Center toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Sincerely,

Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and
Mitigation Administration

For: Michael M. Grimm, Acting Chief
Hazard Study Branch
Federal Insurance and
Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Study Report
Annotated Flood Insurance Rate Map

cc: Mr. Francis Cerizo
Planner
Planning Department
County of Maui

██████████ P.E.
Raymond Chan & Associates, Inc.

Follows Conditional Case No.: 99-09-1283R



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	Maul County Hawaii	CHANNELIZATION	NEW TOPOGRAPHIC DATA HYDRAULIC ANALYSIS
	COMMUNITY NO.: 150003		
IDENTIFIER	Ka'Ono'Ulu Estates - Phase IV	APPROXIMATE LATITUDE & LONGITUDE: 20.77, -156.46 SOURCE: USGS QUADRANGLE DATUM: NAD 27	

**FLOODING SOURCE(S) &
REVISED REACH(ES)**

Kulanihakoi Gulch - from Kihei Road to approximately 300 feet upstream of Kananakui Road

SUMMARY OF REVISIONS

Effective Flooding:	Zone A3	Zone A4	Zone A3	Zone A4	Zone C	BFEs*
Revised Flooding:	Zone A3	Zone A4	Zone B	Zone B	Zone A4	BFEs*
Increases:	NONE	NONE	NONE	NONE	YES	YES
Decreases:	YES	YES	YES	YES	NONE	YES

* BFEs - Base Flood Elevations

ANNOTATED MAPPING ENCLOSURES			ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*	NO: 1500030265C	Date: September 6, 1989	PROFILE: 11P	PROFILE: 12P

* FIRM - Flood Insurance Rate Map; ** FBFM - Flood Boundary and Floodway Map; *** FHBM - Flood Hazard Boundary Map

DETERMINATION

This document provides the determination from the Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2677 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

Max H. Yuan
Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and Mitigation Administration

Version 1.0 2418029DA028102IAC



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the modified channel rests with your community. We may request that your community submit a description and schedule of channel activities.

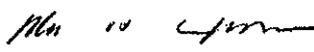
COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2677 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.


Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and Mitigation Administration

Version 1.0 2418029DA028102IAC



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION (CONTINUED)

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Jack Eldridge
Chief, National Flood Insurance Program Branch
Federal Emergency Management Agency, Region IX
1111 Broadway Street, Suite 1200
Oakland, CA 94607-4052
(510) 627-7184

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2677 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.


Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and Mitigation Administration

Version 1.0 2418029DA028102IAC



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

Within 90 days of the second publication in the local newspaper, a citizen may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised BFEs presented in this LOMR may be changed.

This information will be published in the *Federal Register* and your local newspaper as detailed below.

LOCAL NEWSPAPER

Name: *Maui News*

Dates: 01/30/2003

02/06/2003

PUBLIC NOTIFICATION

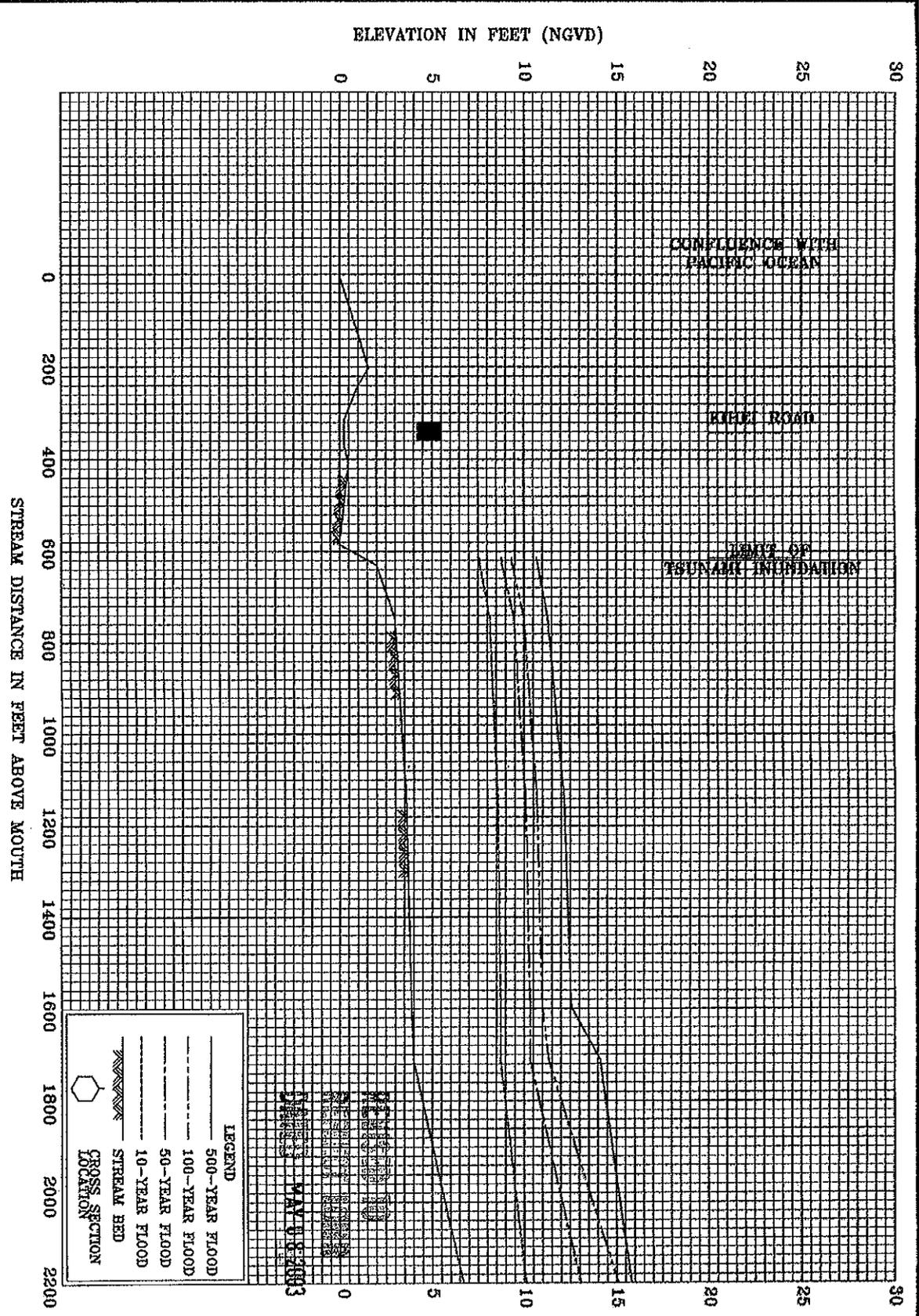
FLOODING SOURCE	LOCATION OF REFERENCED ELEVATION	BFE (FEET NGVD)		MAP PANEL NUMBER(S)
		EFFECTIVE	REVISED	
Kulanihakoi Gulch	Approximately 400 feet upstream of Kihei Road	9	10	0265C
	Approximately 1,000 feet upstream of Kihei Road	12	11	0265C
	Approximately 300 feet upstream of Kakanui Road	None	28	0265C

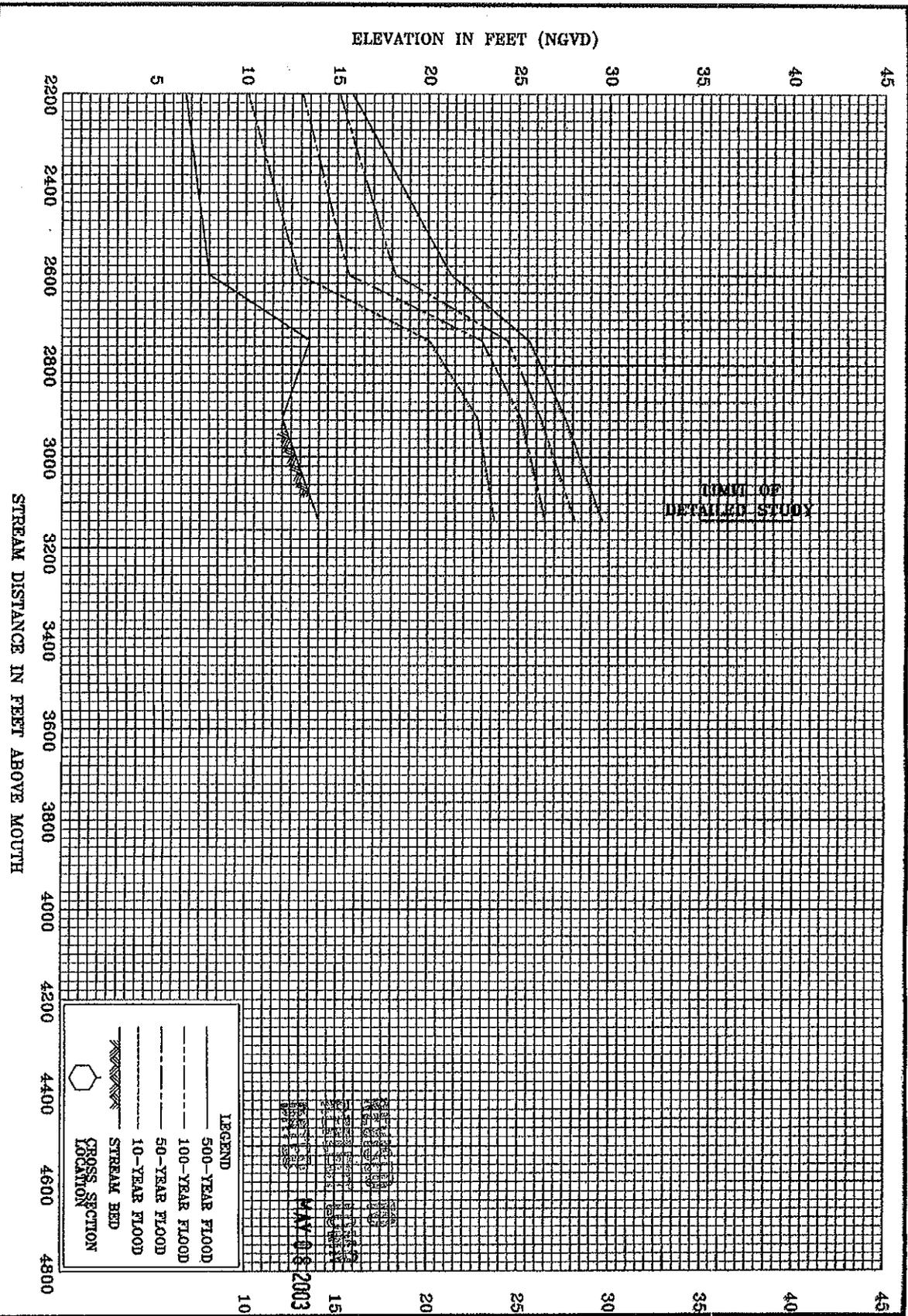
This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Assistance Center toll free at 1-877-336-2677 (1-877-FEMA MAP) or by letter addressed to the LOMR Depot, 3601 Eisenhower Avenue, Alexandria, VA 22304. Additional information about the NFIP is available on our website at <http://www.fema.gov/nfip>.

MHC 10 LHM

Max H. Yuan, P.E., Project Engineer
Hazard Study Branch
Federal Insurance and Mitigation Administration

Version 1.0 2418029DA028102IAC







APPENDIX D
ARCHAEOLOGICAL FIELD INSPECTION

**An Archaeological Field Inspection of a 8.274 acre portion of
land located in Ka'ono'ulu *Ahupua`a*, Wailuku District, Maui
(TMK 3-9-001: 157 and 158)**

Prepared at the direction of:

**Ms. Faith Okuma, Project Manager
Kihei, Maui**

Prepared by:

**Xamanek Researches, LLC
Pukalani, Maui**

Erik M. Fredericksen

28 November 2006

Introduction

Xamanek Researches, LLC conducted a field inspection of 8.274 acres of land in Ka'ono'ulu *ahupua`a*, Kihei, Maui in October 2006 (Figures 1, 2, 3 and 4). Given that the project area had been previously impacted, our field inspection was carried out following discussions with Dr. Melissa Kirkendall, State Historic Preservation Division (SHPD) staff archaeologist for Maui. The field inspection with subsurface testing was undertaken in order to assess the level of previous impact to the project area. The study area consists of two adjacent parcels—Lot 1 and Lot 2 (TMK 3-9-001: 157 and 158, respectively).¹ The property owner, Betsill Brothers Construction, Inc., plans to consolidate the two parcels and preliminarily plans to develop 166 - 168 multi-family housing units on the overall project area.²

Pi'ilani Highway borders the study area on the east, while Ka'ono'ulu Street bounds the northern portion, Kenolio Road borders the *makai* or western side, and Kulanihakai Gulch forms the southern boundary. These adjacent parcels have been heavily altered by previously permitted activities. At present, a permitted single family home, an office complex and a portion of a base yard are located on Lot 1 (Photographs). Lot 2 contains the rest of the base yard, along with a permitted stockpile, along with quantities of fill material and boulders. A previously constructed drainage swale crosses both properties and feeds into an installed underground culvert that empties into Kulanihakai Gulch to the south. An existing County of Maui water line crosses the southeastern portion of Lot 2.

I first conducted an initial field inspection of the project area on 5 October 2006, in order to assess the area. A subsequent pedestrian inspection of the overall study area was undertaken on 27 October 2006. Given the level of previous disturbance, we undertook backhoe testing on 30 October to assess the degree of the previous impacts. The results of our field inspection of the project area are presented below.

Background

The project area is located in Ka'ono'ulu *Ahupua`a*, Wailuku District, Maui (TMK: (2) 3-9-001: 157 & 158). However, a small portion of southeastern corner of Lot 2 is located in Makawao District. The study area is a part of a larger portion of Royal Patent Number 7447, Land Commission Award Number 3237 Part 2 to H. Hewahewa.

¹ Lot 1 presently consists of 5.171 acres, while Lot 2 is comprised of 3.103 acres.

² The final housing mix for the project area has not been finalized at the writing of this report.

The approximate elevation of this property is 18-42 ft AMSL. The parcel presently contains large amounts of imported fill (including boulders), a stock pile, a base yard, informally deposited fill/debris, a previously constructed home, and an office complex. The southern portion of the project area was previously altered for a permitted flood control project in 2000 and leads into a water retention area that can not be developed (Figure 3). The c. 8.25 acre study area was apparently first substantially impacted around 1990, at which time archaeological monitoring was undertaken by Archaeological Consultants of Hawaii and a finding of “no effect” was issued by the State Historic Preservation Division (SHPD DOC NO: AG1007a/393). In addition, a follow-up SHPD review letter, which covered actions proposed for a residential development (Phase I) on a portion of the project area, was generated in May of 1998. At this time, no further work was recommended for proposed activities on the parcel (SHPD DOC NO: 9003BD25). Finally, a “no effect” letter was generated for a more recent development (Phase III—File No: 3.2085) in 2004, because of previous impacts to the general area (SHPD DOC NO: 0403CD12).

Xamanek Researches, LLC carried out a field inspection of a c. 9.5 acre parcel known as Ka’Ono’Ulu Estates Phase V to the southwest of the current project area. This previous field inspection of this nearby parcel was carried out in early 2006. The property was found to have been extensively disturbed and no further work was recommended (Fredericksen, 2006). The SHPD subsequently issued a no-effect letter, following review of the field inspection report (SHPD DOC NO: 0607JP19).

The Phase VI study area has been previously impacted by activities associated with grubbing, grading, and the construction of an adjacent flood control project to the south in early 2000, as well as the development of the Ka’Ono’Ulu Phase III project immediately to the west. The earlier flood control measures impacted the adjacent Kulanihakoī Gulch, and included extensive grubbing and mass grading. This flood control project was undertaken with the necessary County of Maui grading (G2000/64) and SMA (SMI 99/10013 and SMI 98/0004) permits. A drainage swale crosses Lot 1 and feeds into an underground concrete culvert that was previously installed on Lot 2. This previously installed drainage system discharges into the nearby Kulanihakoī Gulch that lies to the south of Lot 2. Grading and grubbing, along with the placement of and stockpiling of fill also occurred within the Phase VI project area in association with the development of the Ka’Ono’Ulu Phase III project in the late 1990s and in 2000.

Field Inspection

As previously noted, an initial field inspection was carried out on 5 October 2006. Following consultation with the SHPD Maui office, a pedestrian 100% surface inspection was then conducted on 27 October. The study area is adjacent to and north of the previously noted impacted section of Kulanihakoī Gulch. As noted above, this drainage

feature has been heavily modified for flood control purposes within about the last 6 years.³

The study area contains access roads along on its southern half; as well as large amounts of imported fill (including boulders), a stock pile, a base yard, informally deposited fill/debris, a previously constructed single family residence, and an office complex. The southern portion of the project area was previously altered for a permitted flood control project in 2000, which leads into a water retention area that can not be developed. The modified Kulanihakoi Gulch lies adjacent to and south of the Phase VI project area.

Surface visibility on the study area at the time of the field visits was fair to good. Observed vegetation was dominated by non-native grass species (primarily buffelgrass). In addition, a few scattered *kiawe* (*Prosopis pallida*) trees (young), as well as *koa haole* (*Leucaena leucocephala*) shrubs and various annual weeds were also noted. Two pioneering native plants species, *'ilima* (*Sida fallax*) and *'uhaloa* (*Waltheria americana*), were noted in low quantities in some open portions of this previously disturbed parcel.

The pedestrian inspection of the Ka'Ono'Ulu Phase VI project area did not reveal any evidence of significant material culture remains. There were several areas where bare ground was visible. In addition, it was evident that the study area had been heavily impacted by previous earthmoving activities. Surface evidence of previous disturbance included several piles of boulders, a large base yard, an extensive stock pile, a previously installed drainage swale, a relatively new home, and an existing office complex.

Subsurface Results

Given the apparent level of disturbance within the study area, a total of 8 backhoe trenches were excavated to assess subsurface conditions (see Figures 5-11, and Photographs 13-20). Encountered fill in tested portions of the project area ranged from a minimum of about 60 cm to over 100 cm in depth.⁴ In general, two common strata were encountered in the testing process. When present, these layers were found to underlay imported fill. It appeared that an unknown amount of the upper portion of Layer I had been previously impacted, possibly by earlier earthmoving activities that took place on the project area. This compact stratum consisted of reddish brown (5 YR 4/4) silty clay. There were no significant material culture remains noted in this layer, which was up to 50 cm thick. Layer II, when encountered, was up to 40 cm in thickness in tested areas.⁵ This reddish brown (5 YR 4/3) clay was sterile and contained weathered pieces of bedrock. A third stratum, Layer III, was located only in BT 1. This compact, brown (7.5 YR 4/4) silt was sterile and contained weathered bedrock.

³ The western (*makai*) portion of the flood control area, which is located *makai* (west) of the Phase VI study area, is currently being reestablished as a wetland area with native plants.

⁴ Backhoe Trenches 3-5 were terminated because of very difficult subsurface excavation conditions in boulder fill. It remains unclear in these test instances how much deeper the fill extended.

⁵ This layer was located in Backhoe Trenches 1, 6 and 7.

Summary

In conclusion, there were no significant material culture remains or intact cultural layers noted during the surface inspection and subsurface testing of this previously disturbed parcel. Fill in tested portions of the study area ranged from 50 to over 100 cm in thickness. Given the level of surface disturbance to the general 8.274 acre Ka'Ono'Ulu Phase VI study area, as well as the subsurface evidence of previous impact, no further archaeological work appears to be warranted for this property at this point in time.

Please feel free to contact me @ 572-8900 should you have any questions or need additional information regarding the field inspection of this c. 8.25 acre portion of land in Kihei, Maui (TMK 3-9-001: 157, 158).

Sincerely,

A handwritten signature in black ink, reading "Erik M. Fredericksen". The signature is written in a cursive, flowing style with a long horizontal tail stroke.

Erik M. Fredericksen

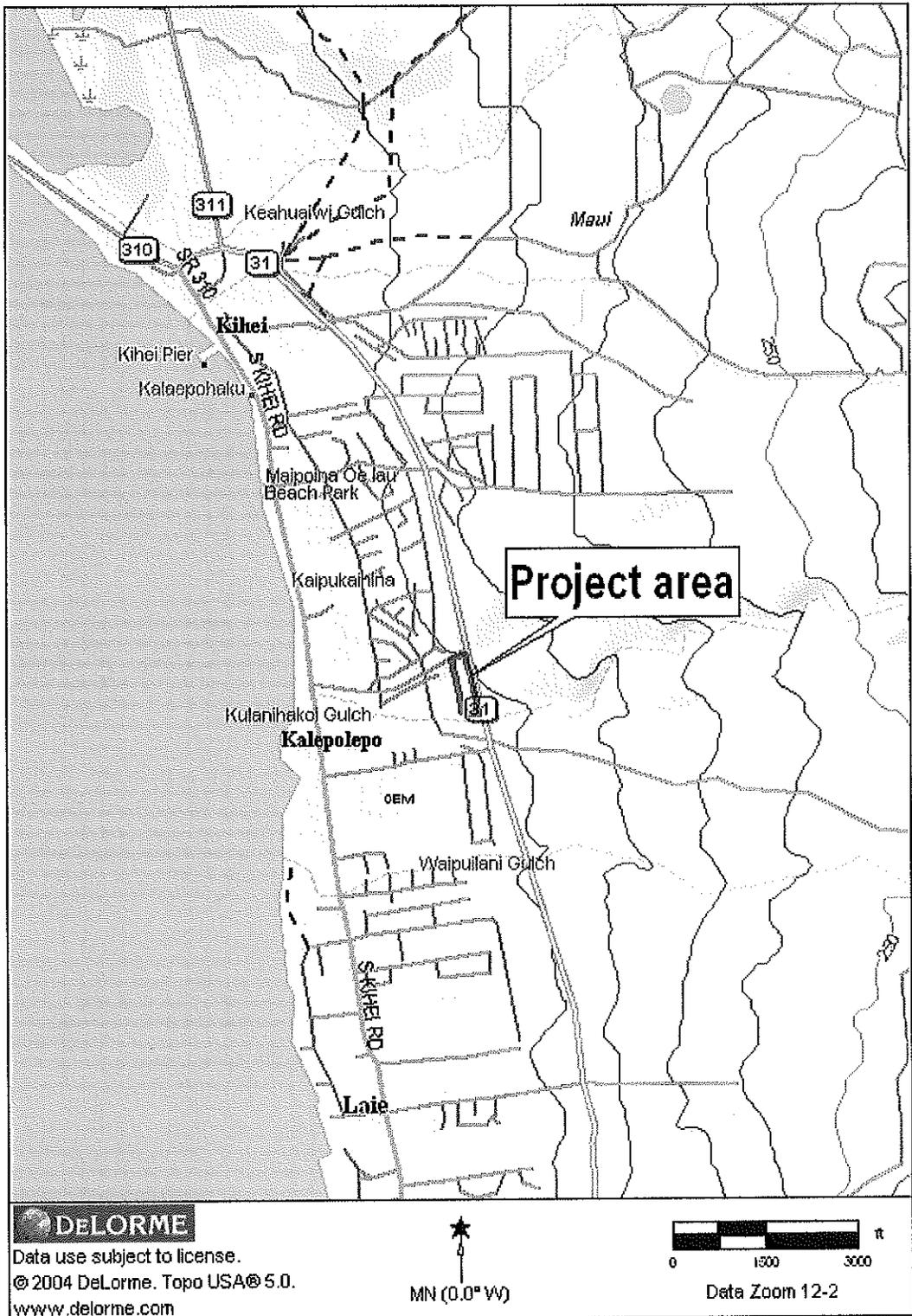


Figure 1: Project area location, Ka'ono'ulu Phase VI, Kihei, Maui.

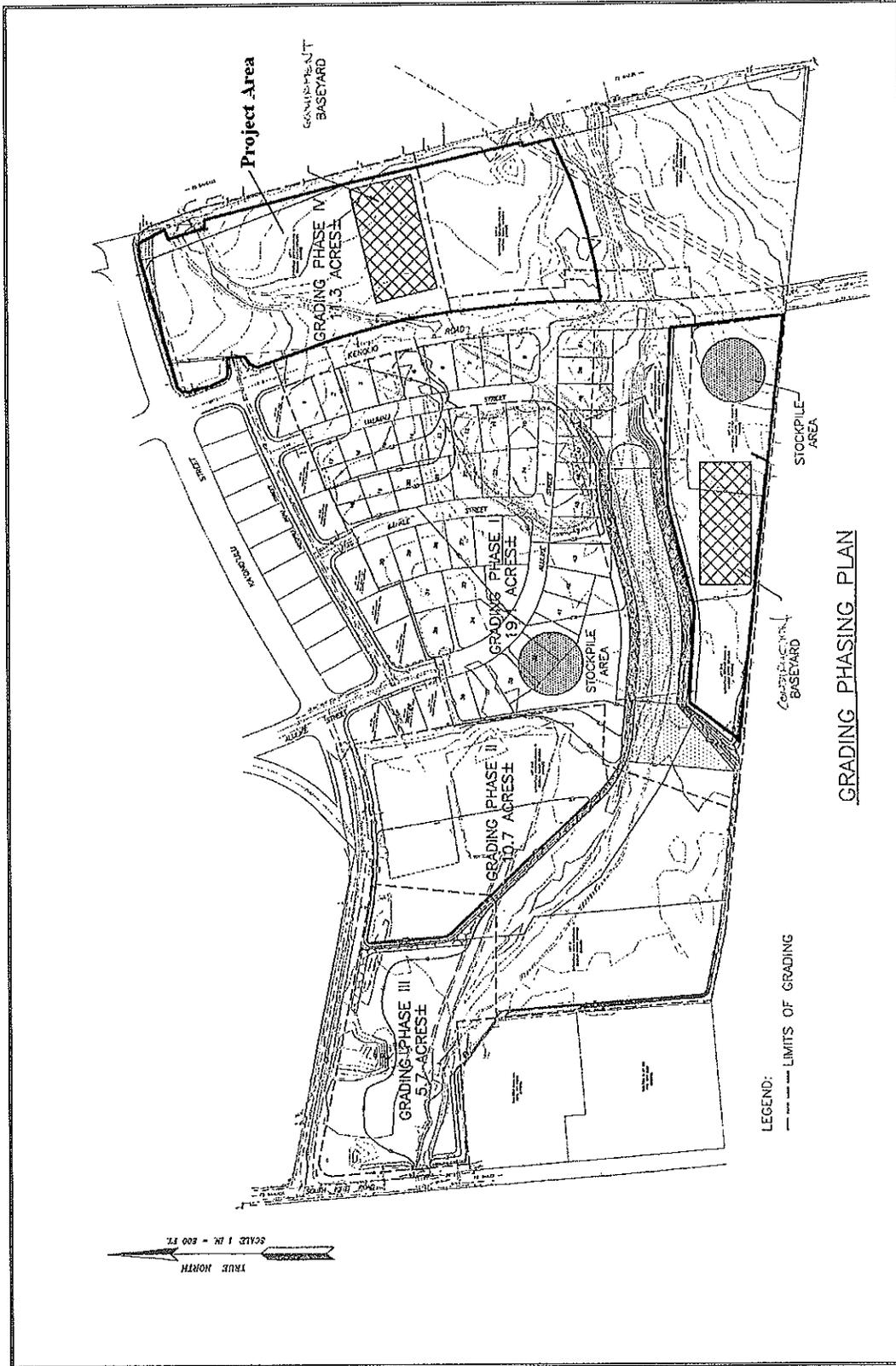


Figure 3: Plan view of the proposed Ka'ono'ulu Phase VI project, along with previous impacts in the overall Ka'ono'ulu development.

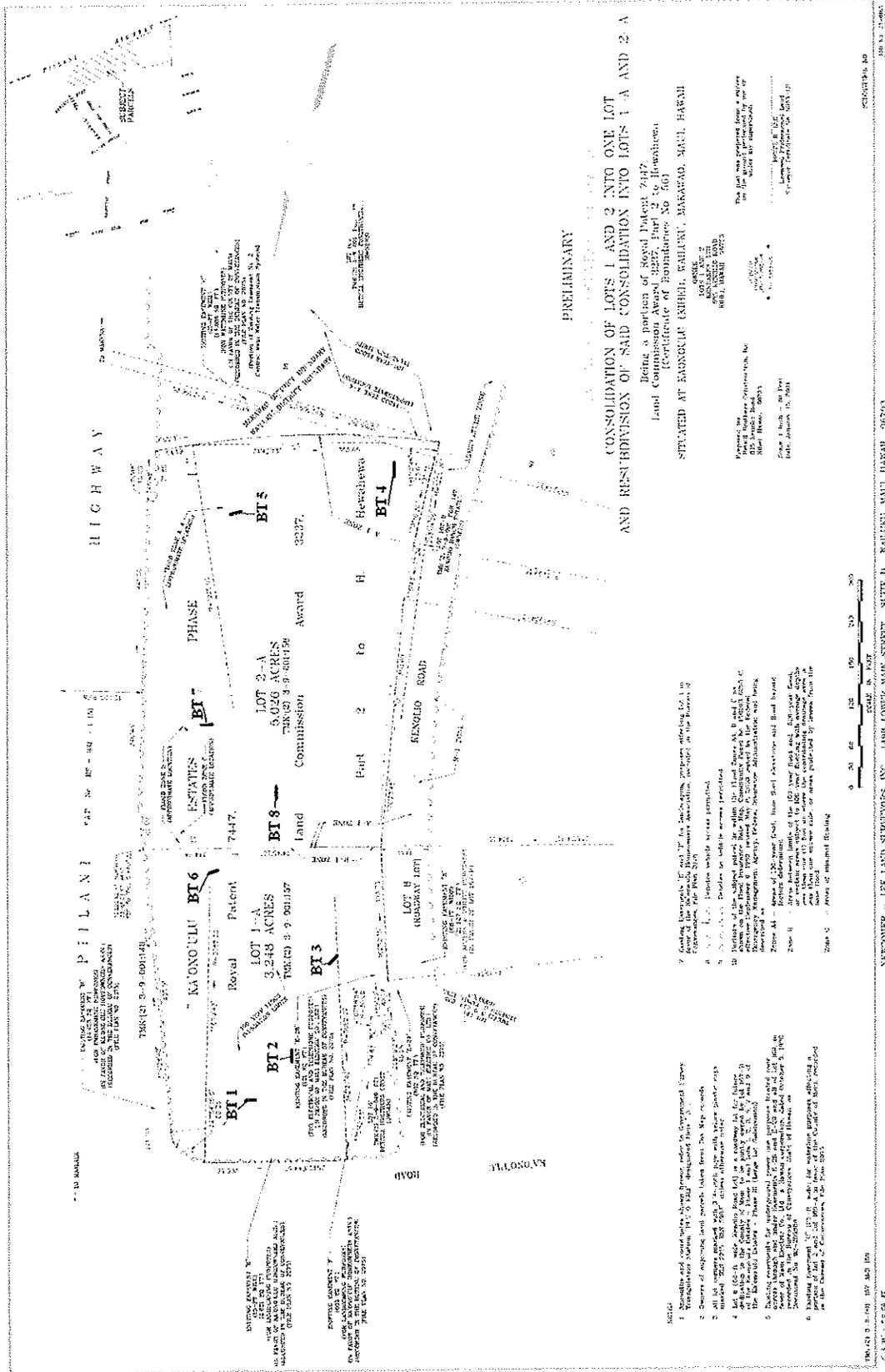


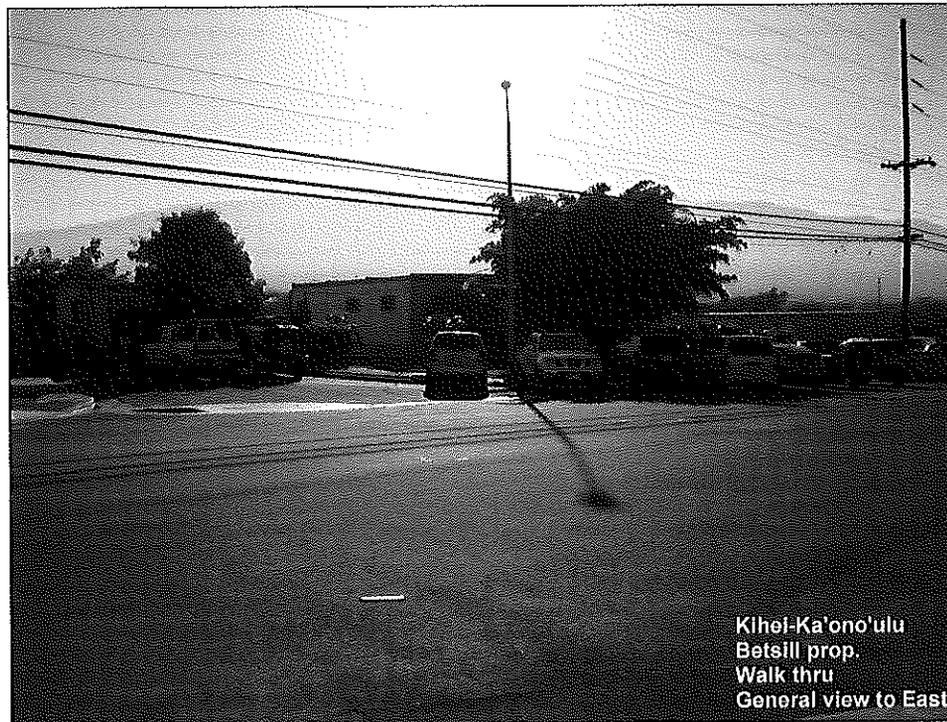
Figure 4: Plan view of the proposed Ka'ono'ulu Phase VI project, including backhoe trench locations.

General Project Area - Photographs 1 to 12



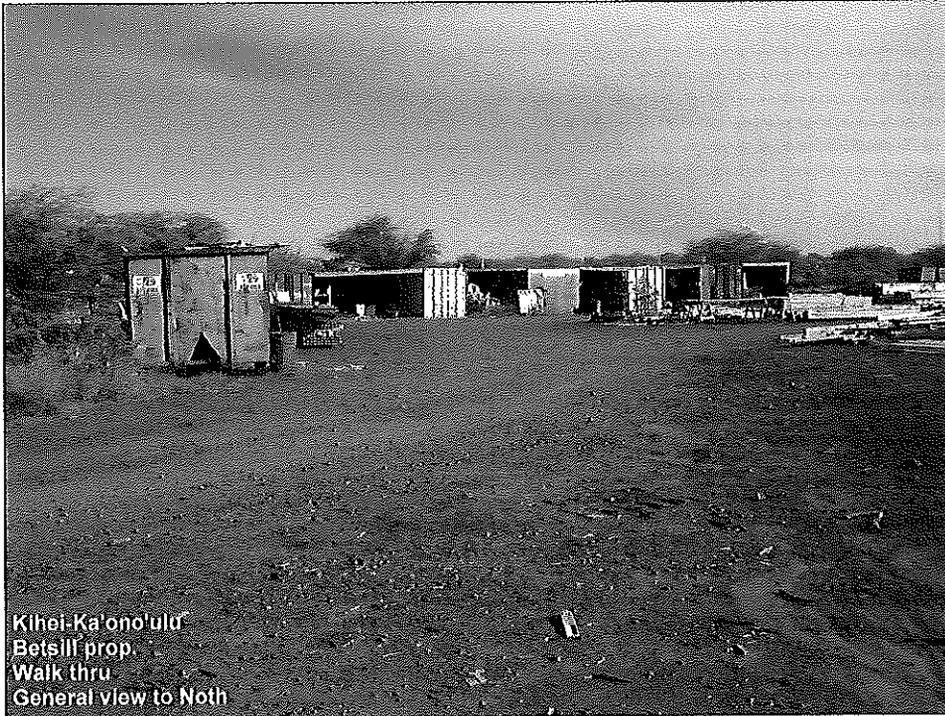
Kihel-Ka'ono'ulu
Betsill prop.
Walk thru
General view to SE

Photograph 1: View to the SE across Ka'ono'ulu Road, including the previously developed house and office buildings.



Kihel-Ka'ono'ulu
Betsill prop.
Walk thru
General view to East

Photograph 2: View to the east of the existing Betsill Brothers, Inc office near the center of the project area.



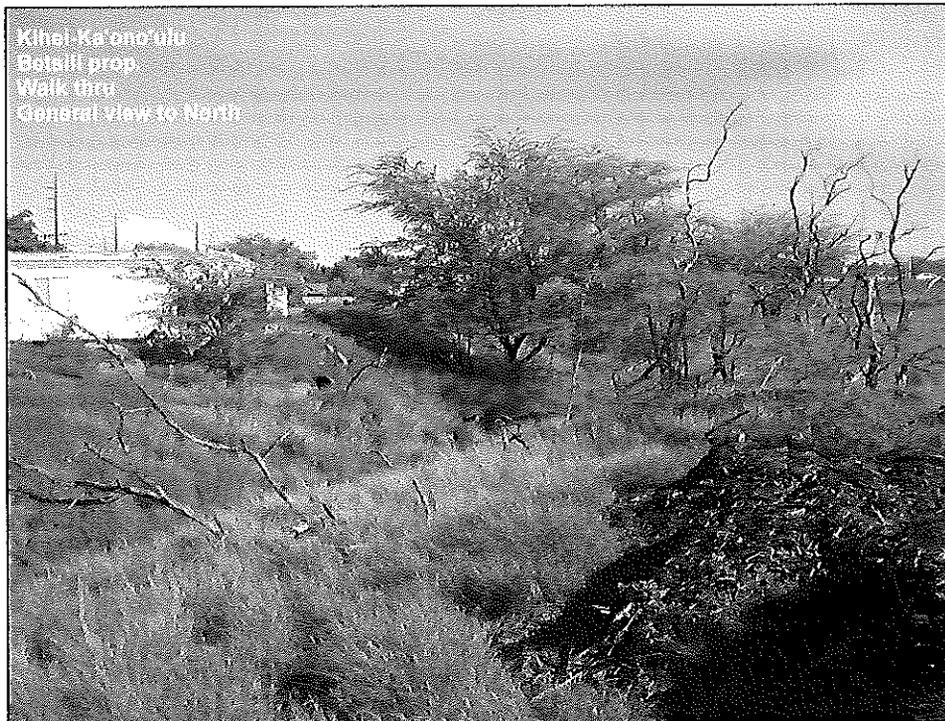
Photograph 3: View to the north across the center of the project in the existing base yard.



Photograph 4: View to the ENE across the center of the project area; existing base yard is in the center.



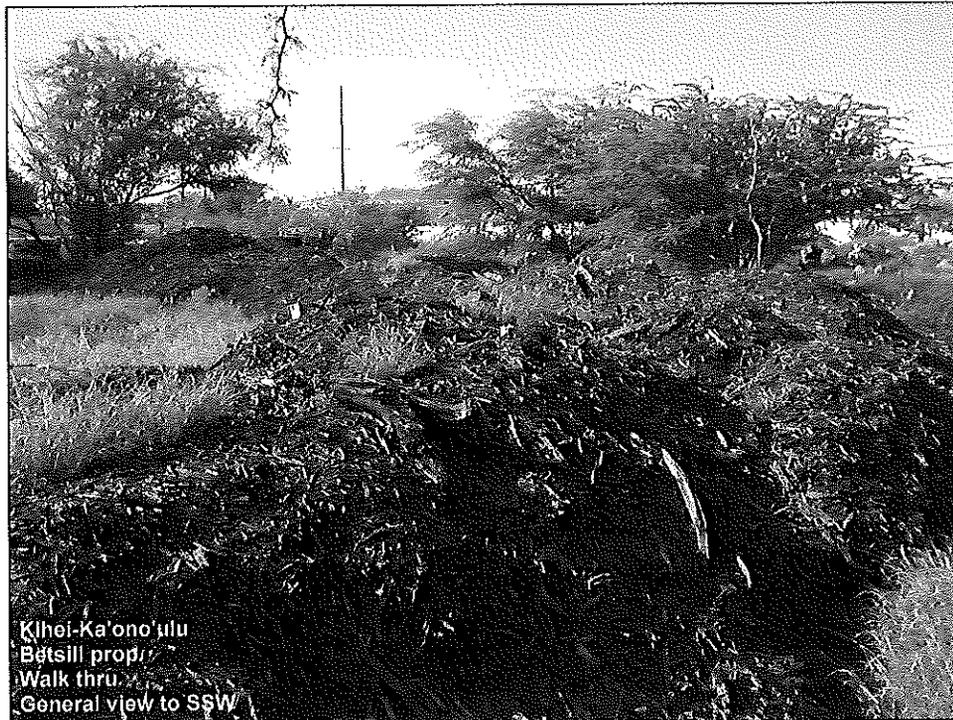
Photograph 5: View to the south of the project area, showing large fill boulders.



Photograph 6: View to the north across the central portion of the study area; previously installed drainage swale extends from lower left to center right. Office complex is in center left of photograph.



Photograph 7: View to the SW across the central portion of the project; note charred kiawe stumps in center of photograph and drainage swale.



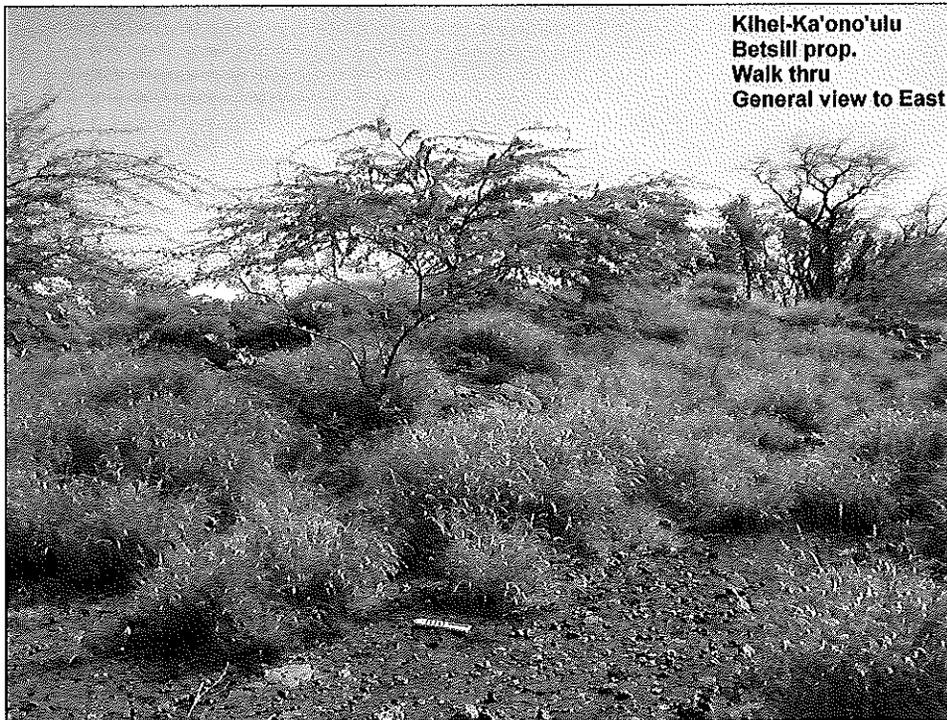
Photograph 8: View to the SSW across a section of the project area that contains organic fill.



Photograph 9: View to the SE across a portion of the southern project area; note imported boulder and soil fill.



Photograph 10: View to the east across the southern end of the project; note Kulanihakoi Gulch bridge in center right background.



Photograph 11: View to the east across a previously filled portion of the project.



Photograph 12: View to the SE across a previously filled portion of the project.

Backhoe Trenches - Photographs 13 to 20



Photograph 13: View of the west face of Backhoe Trench 1.



Photograph 14: View of the SE face of Backhoe Trench 2.



Photograph 15: View of the WNW face of Backhoe Trench 3 – all fill.



Photograph 16: View of the west face of Backhoe Trench 4 – all fill.



Photograph 17: View of the WNW face of Backhoe Trench 5 – all fill.



Photograph 18: View of the E face of Backhoe Trench 6.



Photograph 19: View of the W face of Backhoe Trench 7.



Photograph 20: View of the E face of Backhoe Trench 8.

Backhoe Trench profiles – Figures 5 to 11

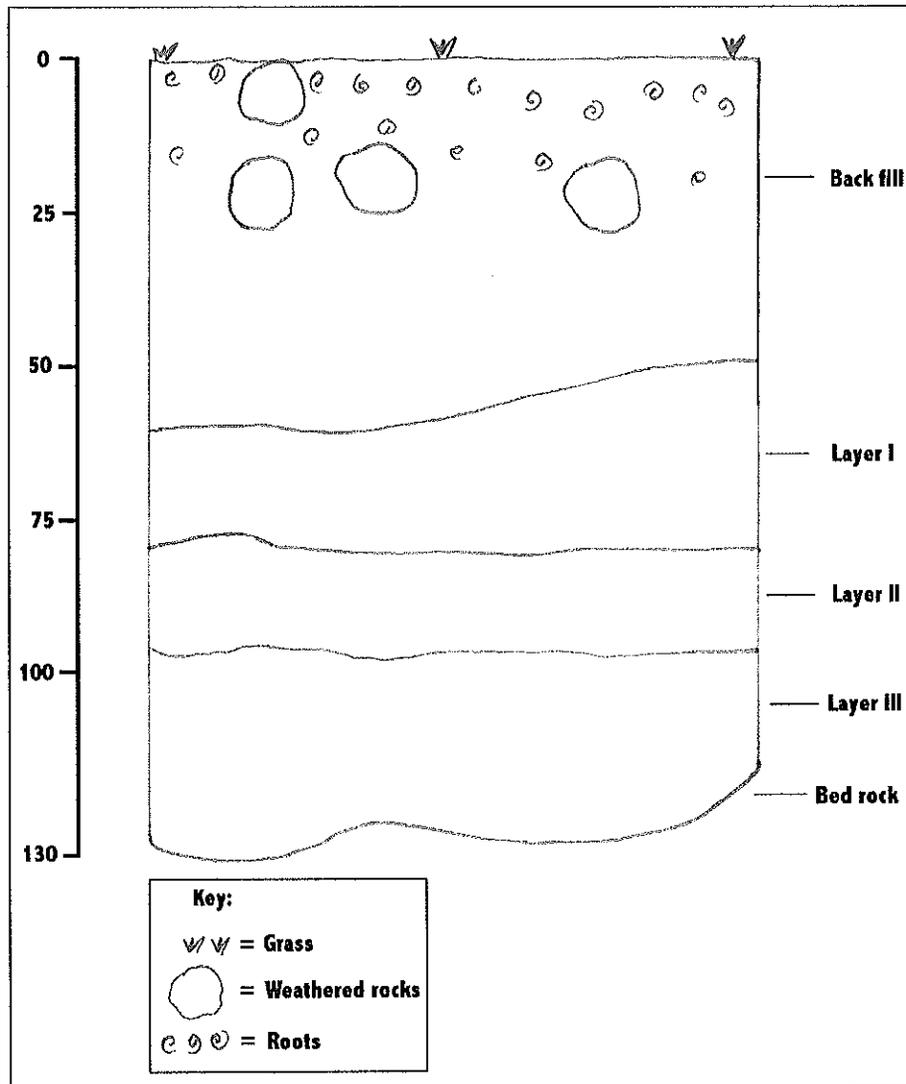


Figure 5: BT 1 – west face wall profile.

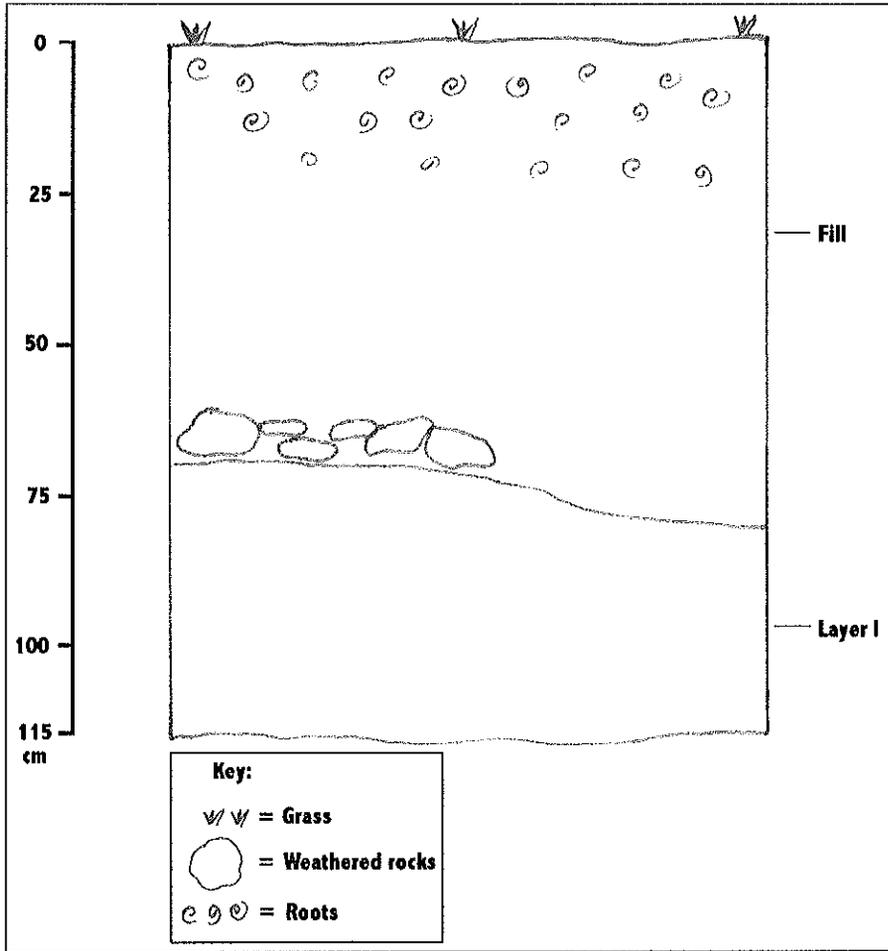


Figure 6: BT 2 - SE face wall profile.

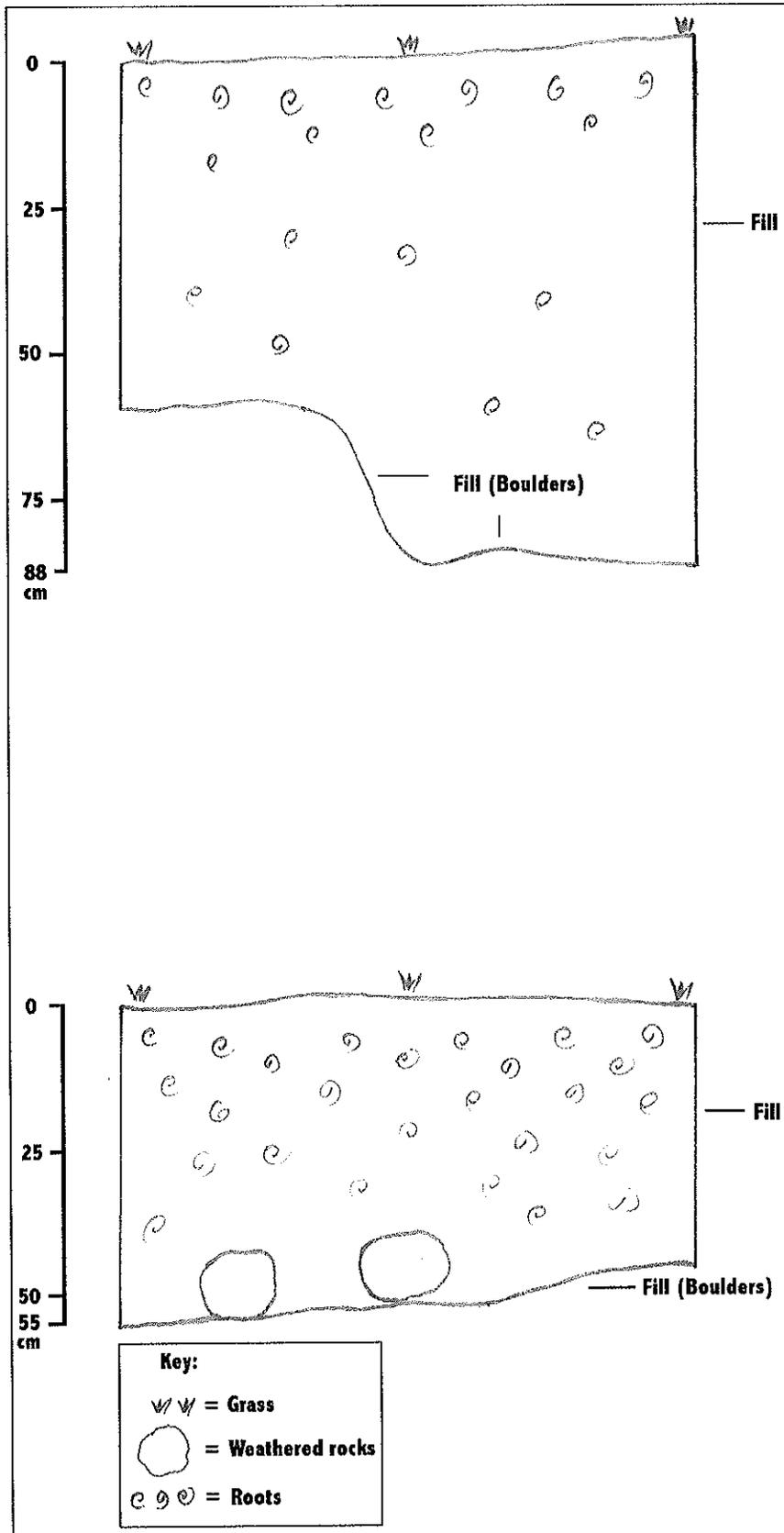


Figure 7: BT 3 - WNW face wall, BT 4 - West face wall profile.

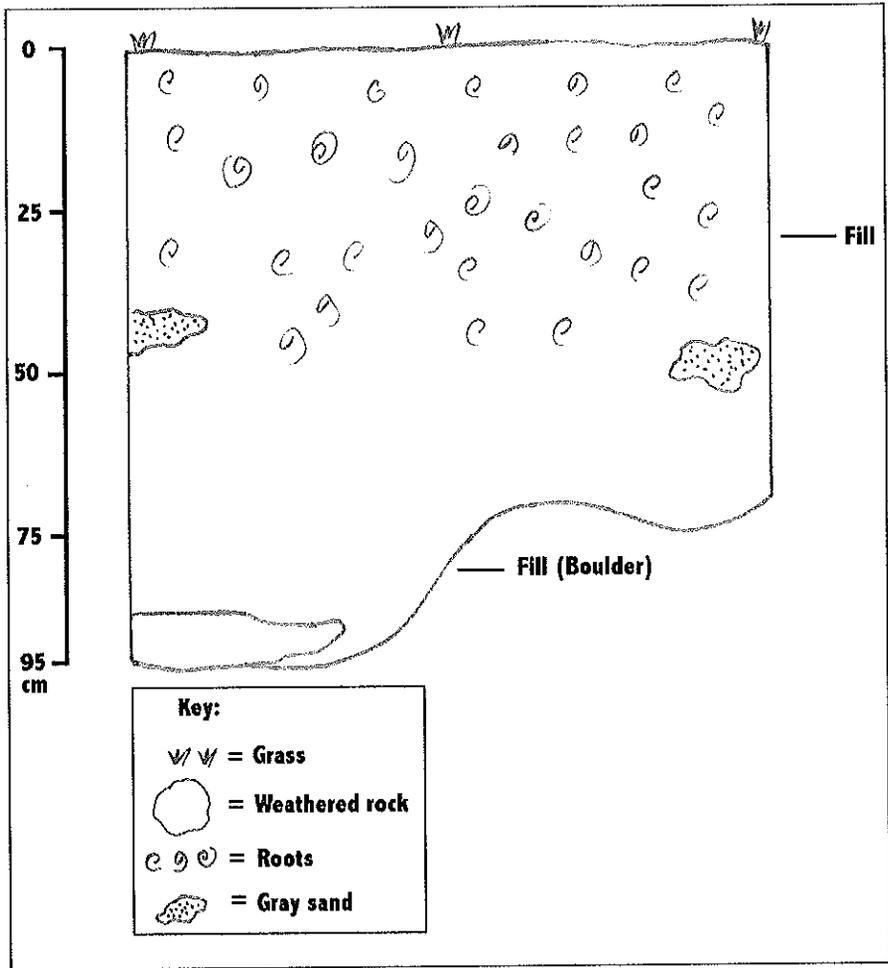


Figure 8: BT 5 - WNW face wall profile.

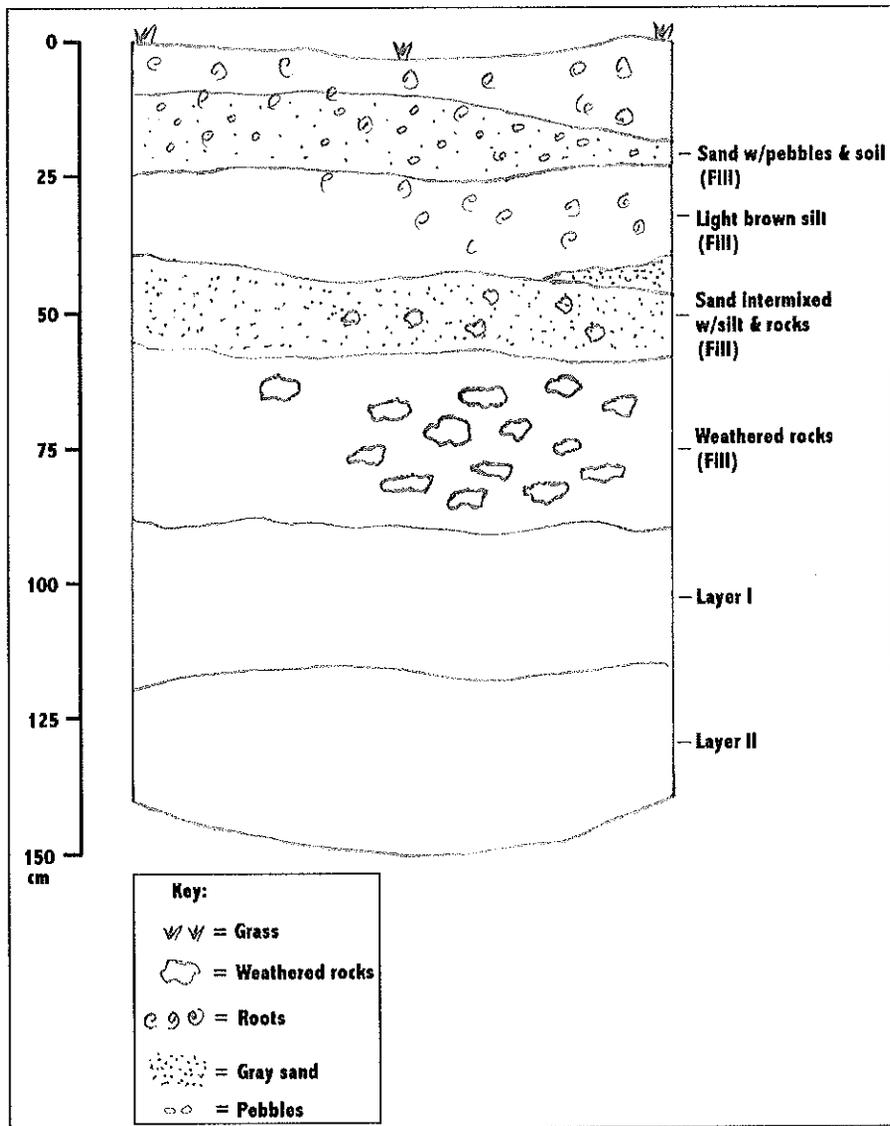


Figure 9: BT 6 - east face wall profile.

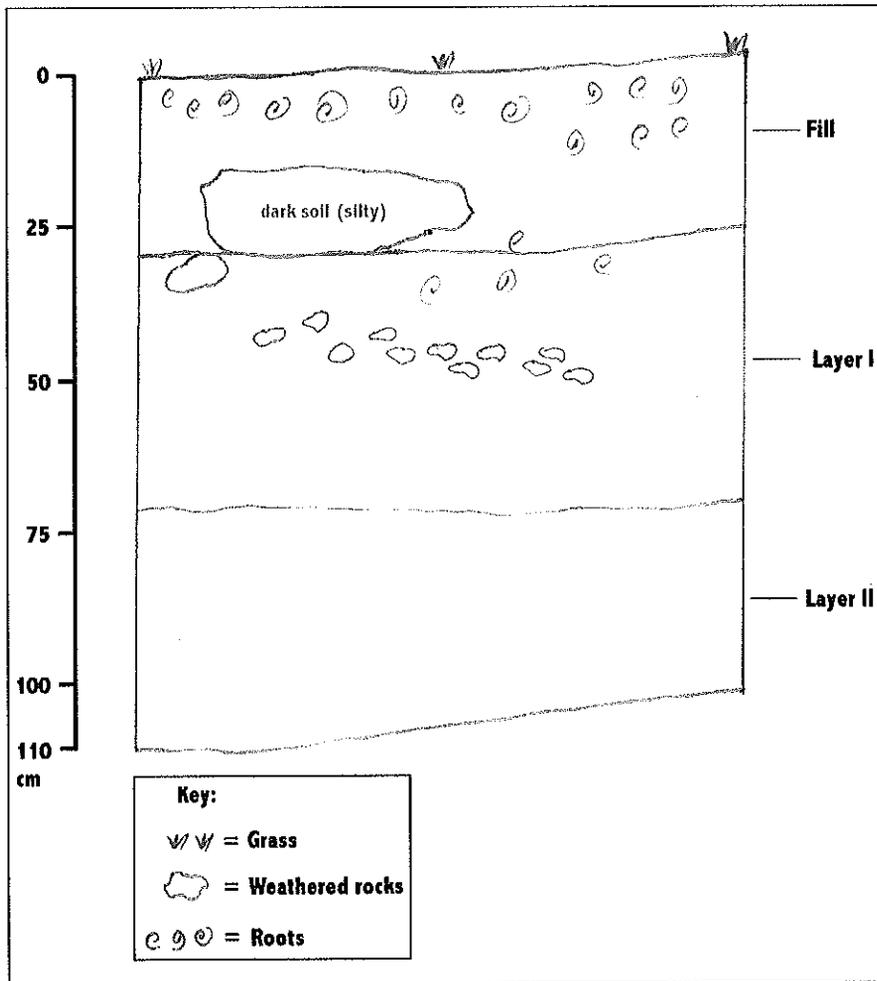


Figure 10: BT 7 - WNW face wall

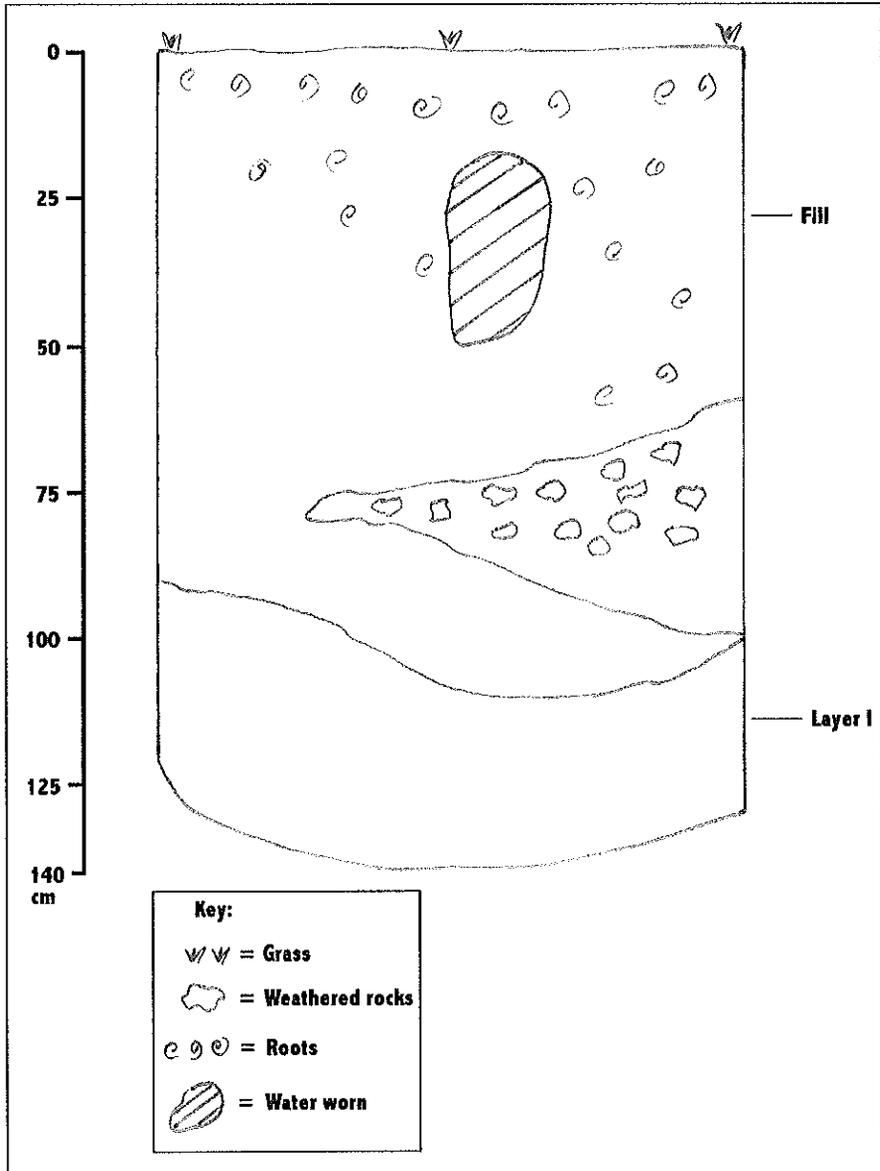


Figure 11: BT 8 - East face wall



APPENDIX E
CULTURAL IMPACT ASSESSMENT

**A Cultural Impact Assessment
on 8.27 Acres of Land in
Ka'ono'ulu Ahupua'a, Kula District,
Island of Maui, Hawai'i
(TMK:(2) 3-9-00, lots 157 and 158)**

Prepared by:
Jill Engledow
April 2007

Prepared for:
Betsill Brothers Construction Inc.
635 Kenolio Road
Kihei, HI 96753

LOCATION OF PROPOSED PROJECT

The project area consists of 8.27 acres of land located makai of the Pi'ilani Highway in Kihei. It is within the moku (district) of Kula, in the ahupua'a of Ka'ono'ulu. It is bounded on the mauka side by Pi'ilani Highway, and on the makai side by an undeveloped road which is an extension of Kenolio Road. The parcel is surrounded by residential development on north, south, and west, with undeveloped land across the highway to the east. On the north end, a single dwelling separates the parcel from Ka'ono'ulu Road. The north end is bounded by the dry Kulanihakoi Gulch.

PROPOSED ACTION

The site is to be developed as a multi-family residential project.

HISTORICAL SIGNIFICANCE

Archaeological studies of the site of Ka'ono'ulu Phase IV have found no signs of permanent habitation or agriculture on this parcel. Long-term cattle grazing may have wiped out any remnants of early human use of the site, and there does not appear to be historical record of people living or actively farming here. Over the centuries, however, people and animals

probably crossed over this land many times because of its transitional location between the farmlands above and the seashore below.

The name Ka'ono'ulu is usually translated as "the desire for breadfruit."¹ This land division extends from the sea up the side of Haleakalā, to the area known in contemporary times as Kula. ¹⁴ The parcel is in an arid region, with minimal vegetation. There is no record of the kinds of vegetation growing in this area. Before the introduction of grazing animals and invasive weeds, it is possible that native forest of koai'e (a small tree of the acacia family) and ko'oloa-ula (a shrub related to the hibiscus) grew all the way to the seashore, according to U.S. Geological Survey research biologist Art Medeiros.

E.S.C. Handy says in *The Hawaiian Planter* that "on the coast, where fishing was good, and the lower westward slopes of Haleakala a considerable population existed, fishing and raising occasional crops of potatoes along the coast, and cultivating large crops of potatoes inland, especially in the central and northeastern section including Keokea, Waiohuli, Koheo, Kaonoulu and Waiakoa, where rainfall drawn round the northwest slopes of Haleakala increases toward Makawao."¹⁴

Approximately one-half mile makai of this parcel, the Kō'ie'ie fishpond in the area known as Kalepolepo would have been part of the infrastructure that supported these people. It is the most significant archaeological site in the immediate area. The original date of construction is unknown. According to a December 1921 article in *Paradise of the Pacific* by Charles Wilcox, "In building the sea walls men were stationed in long lines, passing stones by hand from the rocky sidehills miles away to the workmen laying the courses for the walls in the sea." The fishpond was repaired several times over the next few centuries, first by 'Umi-a-Liloa in the late 1500s, by Chief Kekaulike in the 1700s, by Kamehameha I in the early 1800s, and by prisoners from Kaho'olawe under Governor Hoapili in the 1840s.¹⁴

A favorite of ali'i, Kalepolepo was once the residence of Hewahewa, the powerful kahuna of Kamehameha I, according to the *Fishponds of Hawai'i* brochure published by the Hawaiian Islands Humpback Whale National Marine Sanctuary.¹²

Hawaiian scholar and minister David Malo moved to Kalepolepo in 1843, when, according to Aubrey P. Janion, it was "a trading village of some 2,000 inhabitants." Malo preached under the trees, summoning his congregation with a huge conch shell. Villagers built a church of stone and coral at a site about one half-mile south of the Ka'ono'ulu Phase IV project. ⁸ Today, the remains of that church are once more in use as Trinity Episcopal Church By The Sea, and the church has possession of Malo's conch shell, according to longtime church member Susie Davis.

Kalepolepo was the site of a store established in 1850 by cabinetmaker John Joseph Halstead to take advantage of the demand by California gold miners for Kula produce, particularly Irish potatoes. Halstead was married to 'Uwaikikilani, the granddaughter of Isaac Davis, an early haole retainer of Kamehameha I who married Hawai'i Island ali'i wahine Nākai.⁹

Various records of life at the Halstead store give an idea of what the area may have been like at the time, and of the mauka-makai trade that took place.

"During the fifties Kalepolepo was not so barren looking a place," according to Charles Wilcox. "Coconut trees and kou trees grew beside pools of clear water, along the banks of which grew the taro. . ." Halstead built a three-story house/store all of koa, then one of the

largest buildings on Maui. The store was on the beach, easily reached by sea captains seeking Halstead's merchandise and by the farmers bringing produce from the uplands. The area already was a shipping site for Kula vegetables. Even after California farmers began to grow food for the miners, and the potato boom ended, whaling captains and Maui shoppers continued to visit, and the Koa House remained a commercial and social center. Charles Wilcox describes Kalepolepo as "a thriving village, with two churches, one being a Mormon Church," which was a shipping port for Wailuku and Kula. "The big pond had not been filled up with sand and silt, but was still full of choice pond mullet and perhaps due to that kings and noted chiefs made of Kalepolepo a kind of retreat," Wilcox says.¹⁴

A visitor in 1864, quoted by Jenkins in *Hawaiian Furniture*, described a busy scene in a country store "here on this sandy beach, 10 miles from any village,"⁹ which would seem to contradict the estimate of 2,000 inhabitants just two decades earlier, when Malo established his church. Perhaps the end of the California potato boom and the waning of the whaling era caused the population decline, along with the imported diseases that were devastating the native people.

Environmental changes also may have influenced people to leave the area.

"In the seventies and later," Wilcox wrote, "the Kula mountains had gradually become denuded of their forests, torrential winter rains were washing down earth from the uplands, filling with the silt the ponds at Kalepolepo. And cattle trampling down the brush and grass of the nearby fields caused sand dunes to drift, filling up the big Kalepolepo pond. . ." ¹⁴

Traditional mauka-makai resource-exchange relationships continued as late as the turn of the 20th century, according to a reminiscence about that time by one of Halstead's great granddaughters, quoted in *Hawaiian Furniture* by Jenkins. "Twice a month, sometimes oftener, relatives from upcountry (the farming areas) came to visit and we loved their visits for they brought fresh vegetables, fresh fruit (peaches, oranges, bananas, papayas, figs), fresh beef, quarts of milk and delicious homemade butter. When the family left, they took fresh fish, dried fish, dried squid, shellfish, and jars of seaweed, a fair exchange of foodstuffs."⁹

The store closed in 1876, but the Koa House remained a landmark in the area. Halstead descendants lived in the house into the 1930s, and several are buried in the Trinity Church graveyard, including granddaughter Charlotte Halstead (1864-1937) and several individuals named Wilcox, including Elinor N. Wilcox (1861-1941), also a granddaughter. By 1946, the house had deteriorated so much that it was burned as a safety measure.¹⁴

In 1940, the federal government erected a building on the shore of the fishpond for U.S. Navy use. In 1956, the government purchased the land from Ka'ono'ulu Ranch, and in 1971, turned it over to the National Oceanic and Atmospheric Association. In 1994 it became the headquarters of the Hawaiian Islands Humpback Whale National Marine Sanctuary. Work is now underway to restore the fishpond by the nonprofit organization 'Ao'ao O Nā Loko I'a O Maui.⁷

Historical records on the use of the Ka'ono'ulu Phase IV project site are sparse. An 1880 map shows that the area was part of Land Commission Award 2227, Royal Patent 7447, awarded to Hewahewa (apparently not the kahuna Hewahewa, who had died in 1837, before the 1848 Māhele ¹²). The map also shows the Halstead store and Malo's church, but little else in the area.¹

Pages that might give information about 20th century use of this parcel are missing

from the field books in the the County of Maui Real Property Division. According to Ka'ono'ulu Ranch owner Henry Rice, this parcel has been used only for grazing since at least as early as 1916, when Harold W. Rice acquired it with the purchase of Cornwell Ranch.

The Cornwell Ranch had belonged to William Cornwell, who held several positions under King Kalākaua and Queen Lili'uokalani. After his death, his family sold the ranch to Rice, a Territorial senator who bought and consolidated a number of properties to create what was then one of the largest landholdings on the island. The ranch raised pork at a piggery at the site of the present Maui Lu Hotel, north of the Ka'ono'ulu Phase IV site. It sold its beef and pork at the Ka'ono'ulu Market in Wailuku, supplying much of the meat used on Maui and shipping beef to Honolulu as well.^{2,11}

Henry Rice says there was a fenced pasture just mauka of the Ka'ono'ulu Phase IV parcel, where cattle on their way to Kula were held overnight after being driven from the ranch's West Maui lands.

In the early 20th century, Kihei was thinly populated, with a narrow shoreline road surrounded by kiawe trees and a few homes and small stores scattered along the coast.

Kihei began to change in the 1970s, after the County of Maui entered into a joint venture with several major developers to construct the Central Maui water transmission line. With water available, the growth of what had been a place of scrub land and kiawe paralleled that of the island as a whole. In the late 1970s, land surrounding in the immediate area of this parcel began to be developed into modern subdivisions.⁴ Responding to the increasing need for residential development, Betsill Brothers Construction, Inc. acquired this parcel and the land around it and began to build single-family homes. This final parcel in the Ka'ono'ulu development will provide approximately 160 residences in an affordable multifamily project.

SITE INSPECTION

The parcel has been and still is in use as a base yard during development of the surrounding area. It is covered by buffelgrass with occasional kiawe trees, with some mounds of rock accumulated during construction activities. There do not appear to be any remnants of cultural or historical features or trails, nor are there any native plants.

RESEARCH METHODS

Documentary research included Internet searches for specific names, such as Ka'ono'ulu and Hewahewa, as well as searches of the Maui Historical Society finding aids and the Hawai'i State Archives and Bishop Museum websites, and visits to those offices and to the State Survey Division in Honolulu to examine historic maps. A range of books, articles and Internet sites, listed below, were consulted. Census records (at Ancestry.com) provided information primarily about the short-lived Kihei Plantation, which was a considerable distance away from the subject area, and therefore not useful to this purpose. A visit to the Trinity By The Sea Church cemetery showed the continuing influence of the Halstead/Wilcox family and identified the Kenolio name as a source for interviews.

Telephone contacts and interviews included:

- Susie Davis, a longtime member of Trinity, provided background on the Halstead/Wilcox and Kenolio family connections to the church, and on David Malo's conch shell.
- Art Medeiros, U.S. Geological Survey research biologist and expert on Hawaiian forests, provided an opinion on the possible plant life present in the subject area in pre-contact times.
- Kimokeo Kapahuleha, well known as a cultural practitioner in the Kīhei area, provided information summarized below.
- Henry Rice, owner of Ka'ono'ulu Ranch, provided information about 20th Century use of the subject parcel and about the history of the ranch in the area.
- Katherine Kama'ema'e Smith, author and researcher into the history of Honokahua, provided information about the descendants of Isaac Davis and Nākai, who included 'Uwaikīkilani Halstead.
- Kenneth Apo, a descendant of the Halstead family, was unable to provide information from personal experience, but suggested the *Paradise of the Pacific* article.
- James Kenolio, contacted at his home on O'ahu by telephone, provided information summarized below, and said he is the last in his generation. He suggested contacting the Akina family. A number of attempts to interview members of that family resulted in only one interview, below, with Hamby Akina Kahawai.

INTERVIEWS

Two former residents of the area and one person active in the restoration of Ko'ie'ie fishpond were interviewed and provided the following statements. All interviews were by telephone. In addition, attempts were made to interview other members of the Akina family, also longtime Kīhei residents, but they did not respond to messages left at the family business on March 14, 19 and 26.

Kimokeo Kapahulehua President of 'Ao'ao O Nā Loko I'a O Maui

Mr. Kapahulehua is active in cultural and ocean-related activities in the Kīhei area, and has been a leader in the restoration of Ko'ie'ie fishpond. He said he does not believe construction in the subject area will have any cultural or environmental impact because the area was "cleaned up" and left without native plants or remnants of ancient culture by ranching activities and possibly military use during World War II. While the area closer to the ocean

and fishpond was busy with trading during the whaling era, he said the subject area seems to have been just transitional.

**James Kenolio, retired from the U.S. Army
Former Kīhei resident**

Mr. Kenolio grew up in a kama'āina family that lived in the area just above the old Kīhei School, now a community center. Kenolio Road stretches from that site to the subject area. Several members of the family are buried in the Trinity By The Sea graveyard, and Mr. Kenolio said his family donated the land for the Keolahou Church near the school. Mr. Kenolio lived there until he left in 1954 to join the service. He now lives on O'ahu. Mr. Kenolio said his family and other families in the area harvested mullet from the fish pond, and there was considerable net fishing in the area. He does not know if there are any mauka landmarks used by fishers to locate fishing spots. He said that his grandparents picked wild plants that grew in the area for medical care of ailments like colds and boils. He could not recall the specific plant names, except for aloe vera and 'awa, but noted that construction in the general area has completely changed the landscape and the plant life that he knew growing up. He said the family did not practice any traditional rituals associated with the gathering of medicinal plants. Mr. Kenolio said he does not know if people in his time ever crossed the ranch lands above the shoreline to reach the uplands of Kula.

**Hamby Akina Kahawai, 69
Grew up in Kīhei**

Mrs. Kahawai is a member of the Akina family, some of whom still live and do business in Kīhei. She now lives in Waimea on Hawai'i Island. Mrs. Kahawai said she does not have any information about the subject parcel and surrounding area, but said Kīhei in general was dominated by kiawe and cattle in her youth. Her family did not live a lifestyle that involved gathering activities. She said most of the people who lived in pre-development Kīhei and who might have information about cultural practices have passed on.

SUMMARY OF INTERVIEW RESULTS

All persons interviewed were consistent in their opinions that the proposed action planned for the property will not impact cultural or non-cultural access, gathering, protocols, practices or hunting.

CONSTRAINTS

The primary constraint to obtaining information about cultural practices and features associated with the project area was finding individuals with longtime knowledge of such practices in this recently developed, highly transient area. The interviewer visited a local cemetery (finding the Kenolio family connection there), looked through tax office field books

for possible longtime residents and asked the individuals interviewed to recommend others.

CONFIDENTIAL INFORMATION

There are no known conflicts or unresolved issues regarding this assessment.

CONCLUSION

After making a site inspection, interviewing people knowledgeable about the area and reviewing documentary research, it would appear that the primary cultural feature in the area is the Ko'ie'ie Fishpond, now being restored by volunteers and offering cultural and environmental education to interested persons. The proposed action on the subject property does not interfere with this process, and the fishpond's proximity may in fact enrich the lives of residents of the proposed housing and bring new supporters to efforts to restore and preserve it.

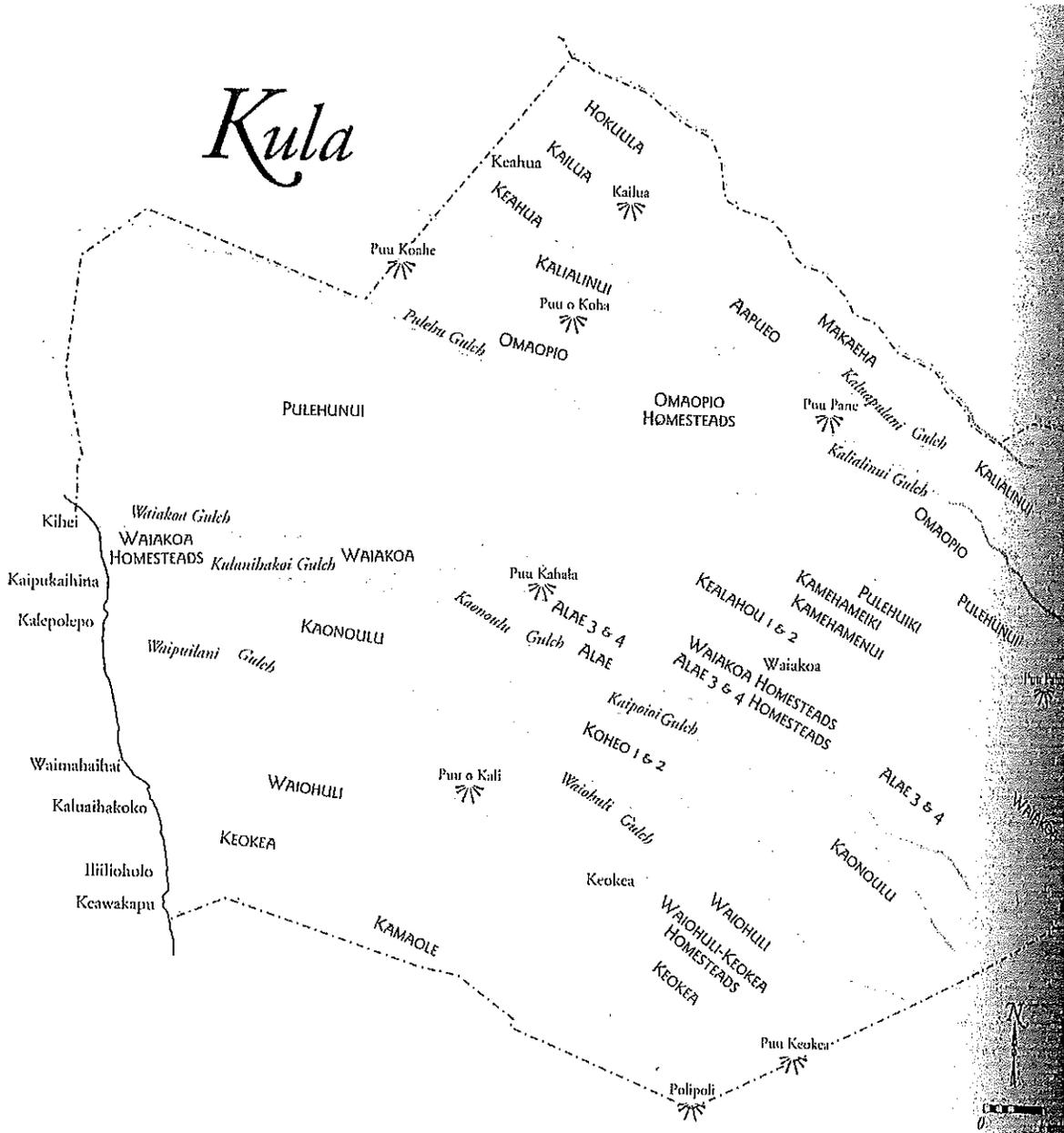
PROJECT RESPONSE TO CULTURAL ASSESSMENT

Although there were no specific cultural activities found to be associated with this site, the project plan is designed with substantive shared community open space. We believe that community space and the way that homes relate to it is a way to incorporate subtle local sensibilities in this multi-family oriented development.

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Map of Kula District taken from *Sites of Maui*, by Elspeth Sperling



APPENDIX F
TRAFFIC IMPACT ASSESSMENT REPORT

TRAFFIC IMPACT ANALYSIS REPORT FOR

KAONOULU RESIDENTIAL SUBDIVISION

IN KIHEI, MAUI, HAWAII

Prepared For

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December 7, 2007

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1. INTRODUCTION

Phillip Rowell and Associates has been retained to update the Traffic Impact Analysis Report for the proposed Kaonoulu residential subdivision in Kihei, Maui, Hawaii. This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

Project Location and Description

The following is a summary of the project:

1. The project is located between Piilani Highway and Kenolio Road in the southwest quadrant of the intersection of Kaonoulu Street at Piilani Highway in the Kihei area of Maui. Figure 1 indicates the approximate location in the Kihei area.
2. The project is a 166-unit multi-family residential subdivision.
3. Access to and egress from will be via three driveway along the east side of Kenolio Road. The first driveway, referred to as Drive A, is opposite the intersection of Kenolio Road at Hoopili Akau Street. Drives B and C are both south of Drive A along Kenolio Road.

A preliminary site and landscape plan indicating the locations of these driveways is provided as Appendix A.

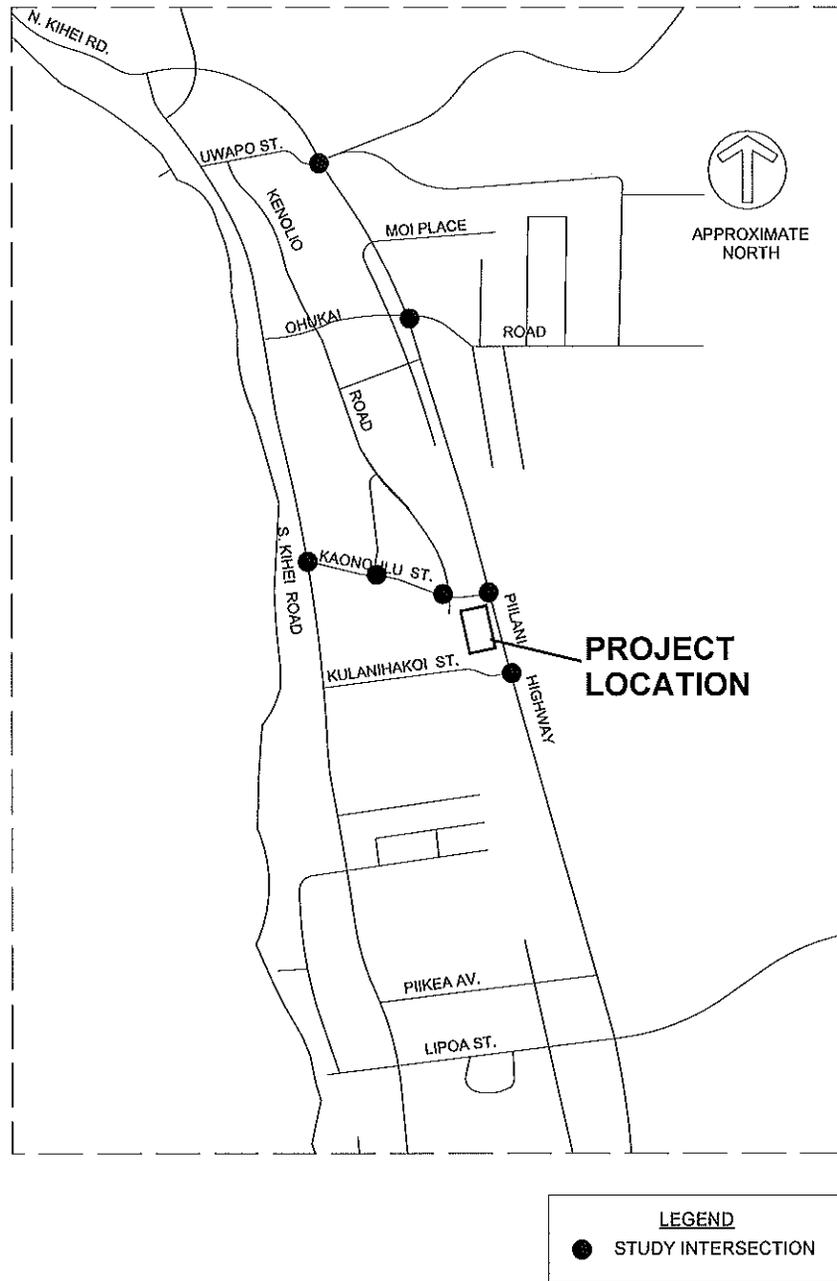


Figure 1
PROJECT LOCATION MAP

Study Methodology

The following is a summary list of the tasks performed:

1. The study area and the scope of work was defined using criteria established by the Institute of Transportation Engineers¹ for small developments, which are projects that generate between 100 and 500 trips during the peak hour. See Appendix B.
2. A field reconnaissance was performed to identify existing roadway cross-sections, intersection lane configurations, traffic control devices, and surrounding land uses.
3. Existing traffic volumes were obtained for the study intersections.
4. Existing levels-of-service of the study intersections were determined using the methodology described in the *2000 Highway Capacity Manual*.
5. A list of related development projects within and adjacent to the study area that will impact traffic conditions at the study intersections was compiled. This list included both development projects and anticipated highway improvement projects.
6. Future background traffic volumes at the study intersections without traffic generated by the study project were estimated.
7. Peak hour traffic that the proposed project will generate was estimated using trip generation analysis procedures recommended by the Institute of Transportation Engineers.
8. Project generated traffic was assigned to the adjacent roadway network.
9. A level-of-service analysis for future traffic conditions with traffic generated by the study project was performed.
10. The impacts of traffic generated by the proposed project at the study intersections was quantified and summarized.
11. Locations that project generated traffic significantly impacts traffic operating conditions were identified.
12. If required, improvements or modifications necessary to mitigate the traffic impacts of the project and to provide adequate access to and egress from the site were formulated.
13. A report documenting the conclusions of the analyses performed and recommendations was prepared.

¹ Institute of Transportation Engineers, *Transportation and Land Development, Second Edition*, Washington, D.C., 2002, pages 3-1 thru 3-16.

Police Department Input

The Maui County Department of Public Works and Environmental Management recently advised traffic consultants to contact the Maui Police Department (MPD) for their input on the traffic impact report. Discussions regarding the various development projects in and adjacent to the study area have been held with Maui Police Department. As the draft traffic study has not been officially submitted, no written comments have been received. It is understood that upon submittal of the draft report, written comments will be prepared and submitted through channels.

Study Area

The study area for this study is consistent with the study area used in the preparation of traffic studies for other projects in the area and recent direction from the County of Maui Department of Public Works. The study intersections are listed in Table 1. There are ten (10) study intersections. See Figure 2.

Table 1 Study Intersections

Number	Intersection	Status	Jurisdiction
1	Kaonoulu Street at Piilani Highway	Existing	State
2	Ohukai Road at Piilani Highway	Existing	State
3	Kulanihakoī Road at Piilani Highway	Existing	State
4	Kaonoulu Street at Kenolio Road	Existing	County
5	Kaonoulu Street at Alulike Street	Existing	County
6	Kaonoulu Street at South Kihei Road	Existing	County
7	Piilani Highway at Uwapo Road/Kaiwahine Road	Existing	County
8	Kenolio Road at Drive A	Existing	County
9	Kenolio Road at Drive B	Future	County
10	Kenolio Road at Drive C	Future	County

Order of Presentation

Chapter 2 describes existing traffic conditions, the Level-of-Service (LOS) concept and the results of the Level-of-Service analysis of existing conditions.

Chapter 3 describes the process used to estimate 2015 background traffic volumes and the resulting background traffic projections. Background conditions are defined as future background traffic conditions without traffic generation by the study project.

Chapter 4 describes the methodology used to estimate the traffic characteristics of the proposed project, including 2015 background plus project traffic projections.

Chapter 5 describes the traffic impacts of the proposed project.

Chapter 6 describes the conclusions of the impact analysis and recommended mitigation measures.

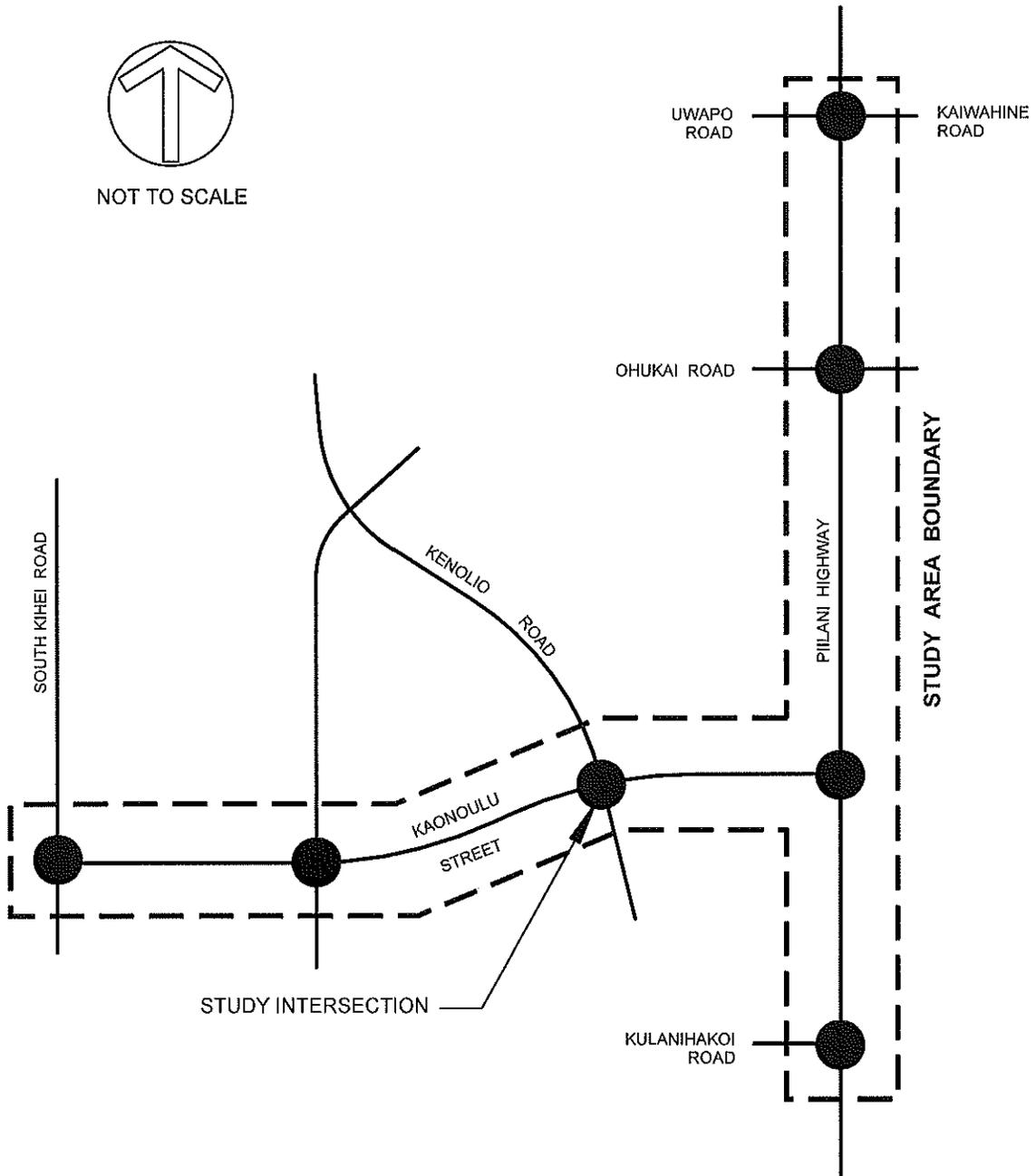


Figure 2
STUDY AREA AND STUDY INTERSECTIONS

2. ANALYSIS OF EXISTING CONDITIONS

This chapter presents the existing traffic conditions on the roadways adjacent to the proposed project. The level-of-service (LOS) concept and the results of the LOS analysis for existing conditions are also presented. The purpose of this analysis is to establish the base conditions for the determination of the impacts of the project which are described in a subsequent chapter.

Existing Streets and Intersection Controls

The primary streets and roadways serving the project are Piilani Highway, South Kihei Road and Kaonoulu Street. These streets and the lane configurations of the study intersections are shown as Figure 3. Also shown are the method of right-of-way control at the study intersections.

Piilani Highway is a four-lane, undivided highway with a north-south orientation connecting Mokulele Highway to the north with Wailea Resort to the south. The posted speed limit is 40 miles per hour. The intersections with Ohukai Street and Kaiwahine Street are signalized with separate left turn phases for the northbound and southbound approaches. The intersection with Kaonoulu Street is unsignalized. All intersections have separate left turn lanes.

Ohukai Street is a basically a two-lane, two-way street, but widens to provide two approach lanes as it approaches Piilani Highway. The posted speed limit is 20 miles per hour. Both the eastbound and westbound approaches provide a through and left turn lane and a separate right turn lane. The eastbound and westbound approaches move concurrently, which means that left turns are permitted rather than protected.

Kaonoulu Street currently connects Piilani Highway with South Kihei Road. Currently, it is a two-lane, two-way street with separate left turn lanes at intersections. The posted speed limit is 20 miles per hour. The intersection with Piilani Highway is currently an unsignalized, T-intersection.

Kaiwahine Street is a two-lane, two-way residential collector street connecting the project with Piilani Highway. The posted speed limit is 20 miles per hour. Residential parking is allowed along both sides of the street.

Existing Peak Hour Traffic Volumes

The existing peak hour traffic volumes are shown in Figures 4 and 5.

1. The traffic counts include buses, trucks, motorcycles, mopeds and other large vehicles. Bicycles and pedestrians were not counted.
2. All intersections were counted from 6:30 AM to 9:00 AM and from 3:30 PM to 6:00 PM on weekdays.
3. The traffic volumes shown are the peak hourly volume of each movement rather than the peak sum of all approach volumes.
4. The traffic volumes of adjacent intersections may not match the volumes shown for an adjacent intersection because the peak hours of the adjacent intersections may not coincide and there are driveways between the intersections.
5. Pedestrian activity was negligible during the traffic counts.

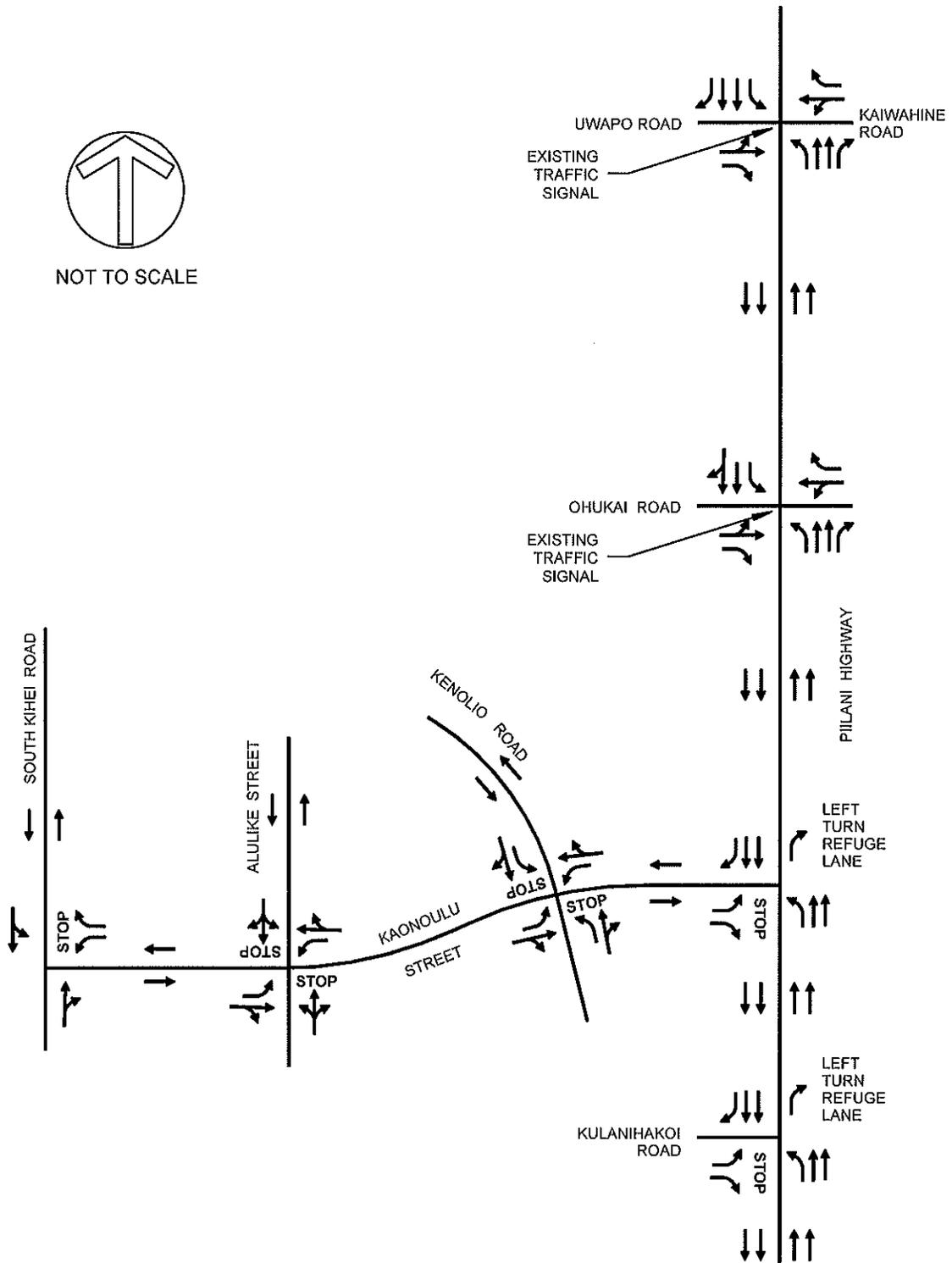
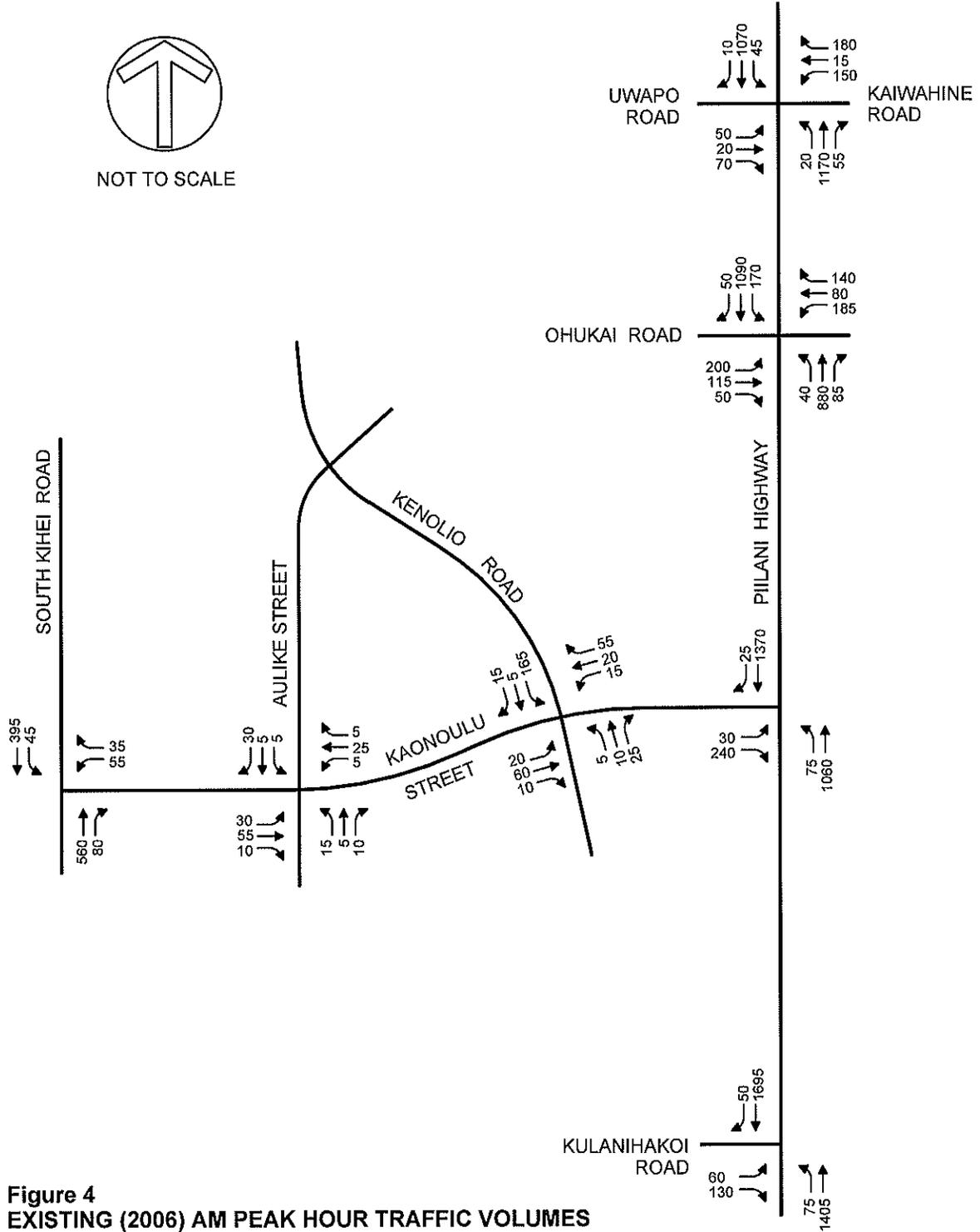
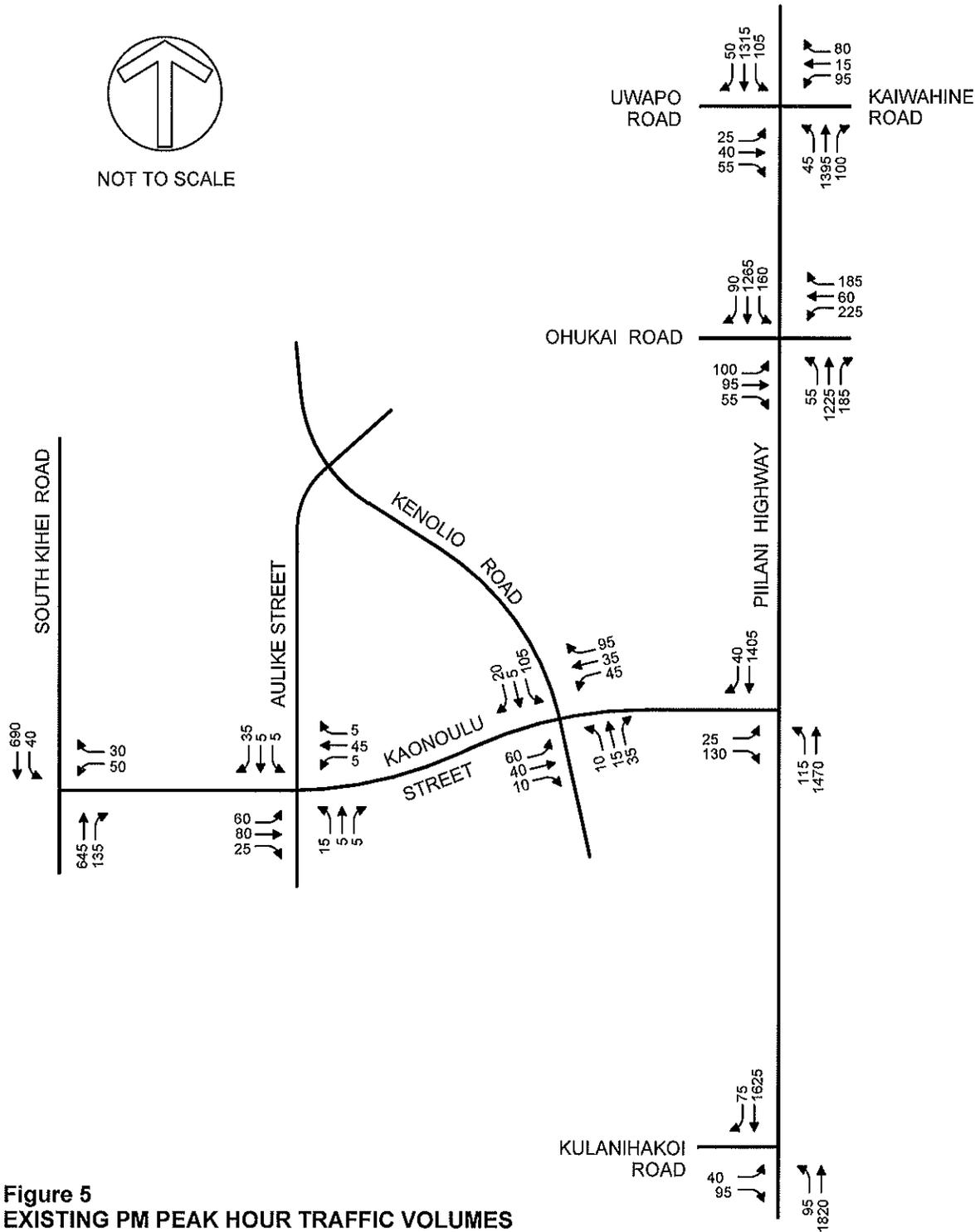


Figure 3
EXISTING LANE CONFIGURATION AND RIGHT-OF-WAY CONTROLS





Level-of-Service Concept

Signalized Intersections

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service (LOS) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each level-of-service are summarized in Table 2. In general, LOS A represents free-flow conditions with no congestion. LOS F, on the other hand, represents severe congestion with stop-and-go conditions. **Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.**

Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

Table 2 Level-of-Service Definitions for Signalized Intersections⁽¹⁾

Level of Service	Interpretation	Volume-to-Capacity Ratio ⁽²⁾	Stopped Delay (Seconds)
A, B	Uncongested operations; all vehicles clear in a single cycle.	0.000-0.700	<20.0
C	Light congestion; occasional backups on critical approaches	0.701-0.800	20.1-35.0
D	Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.	0.801-0.900	35.1-55.0
E	Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.	0.901-1.000	55.1-80.0
F	Total breakdown with stop-and-go operation	>1.001	>80.0

Notes:

- (1) Source: *Highway Capacity Manual*, 2000.
- (2) This is the ratio of the calculated critical volume to Level-of-Service E Capacity.

Unsignalized Intersections

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a level-of-service from A to F. However, the method for determining level-of-service for unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps through which to execute a desired maneuver. The criteria for level-of-service at an unsignalized intersection is therefore based on delay of each turning movement. Table 3 summarizes the definitions for level-of-service and the corresponding delay.

Table 3 Level-of-Service Definitions for Unsignalized Intersections⁽¹⁾

Level-of-Service	Expected Delay to Minor Street Traffic	Delay (Seconds)
A	Little or no delay	<10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	See note (2) below	>50.1

Notes:

- (1) Source: *Highway Capacity Manual, 2000.*
- (2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.

Level-of-Service Analysis of Existing Conditions

The existing levels-of-service of the signalized study intersections are summarized in Table 4. The results shown in the table are the volume-to-capacity ratios, delays and levels-of-service of the overall intersections as reported by the *Highway Capacity Software*.

The results of the Level-of-Service analysis of the study intersections are summarized in Table 5. The methodology for unsignalized intersections does not calculate the volume-to-capacity ratio. Only the delays are calculated.

Table 4 2015 Levels-of-Service of Signalized Intersections

Intersection and Movement	AM Peak Hour			PM Peak Hour		
	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²
Piilani Highway at Ohukai Road	0.82	48.2	D	0.83	51.2	D
Eastbound Left & Thru	0.91	75.3	E	1.04	144.7	F
Eastbound Right	0.03	41.1	D	0.04	63.4	E
Westbound Left & Thru	0.90	79.0	E	0.93	95.0	F
Westbound Right	0.10	44.9	D	0.13	54.5	D
Northbound Left	0.98	189.2	F	1.09	226.3	F
Northbound Thru	0.72	38.2	D	0.74	34.1	C
Northbound Right	0.06	26.2	C	0.16	21.7	C
Southbound Left	0.91	94.7	F	1.04	151.6	F
Southbound Thru & Right	0.75	31.9	C	0.74	27.9	C
Piilani Highway at Kaiwahine Road	0.71	21.5	C	0.76	19.1	B
Eastbound Left & Thru	0.36	33.2	C	0.31	35.6	D
Eastbound Right	0.05	30.3	C	0.04	33.5	C
Westbound Left & Thru	0.76	47.9	D	0.65	44.2	D
Westbound Right	0.12	30.9	C	0.05	33.6	C
Northbound Left	0.92	189.4	F	0.59	52.8	D
Northbound Thru	0.79	24.8	C	0.84	23.6	C
Northbound Right	0.04	13.7	B	0.07	11.3	B
Southbound Left	0.12	28.2	C	0.30	31.6	C
Southbound Thru	0.49	8.0	A	0.59	8.8	A
Southbound Right	0.01	4.9	A	0.03	4.8	A

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

Table 5 Existing Levels-of-Service of Unsignalized Intersections

Intersection and Movement	AM Peak Hour		PM Peak Hour	
	Delay ¹	LOS ²	Delay	LOS
Piilani Highway at Kaonoulu Street				
Northbound Left	14.0	B	15.5	B
Eastbound Left	21.3	C	24.6	C
Eastbound Right	28.0	D	19.1	C
Piilani Highway at Kulanihako'i Road				
Northbound Left	18.9	C	20.6	C
Eastbound Left	81.0	F	71.1	F
Eastbound Right	28.1	D	23.9	C
Kaonoulu Street at Kenolio Road				
Eastbound Left	7.4	A	7.6	A
Westbound Left	7.4	A	7.4	A
Northbound Left	9.9	A	11.7	B
Northbound Thru & Right	9.3	A	9.9	A
Southbound Left	11.7	B	13.8	B
Southbound Thru & Right	9.0	A	9.4	A
Kaonoulu Street at Alulike Street				
Eastbound Left	7.3	A	7.4	A
Westbound Left	7.3	A	7.4	A
Northbound Left, Thru & Right	9.6	A	10.7	B
Southbound Left, Thru & Right	8.9	A	9.2	A
South Kihei Road at Kaonoulu Street				
Southbound Left	9.2	A	9.6	A
Westbound Left	18.0	C	24.8	C
Westbound Right	12.5	B	13.3	B

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

3. PROJECTED BACKGROUND TRAFFIC CONDITIONS

The purpose of this chapter is to discuss the assumptions and data used to estimate background traffic conditions. Background traffic conditions are defined as future traffic volumes without the proposed project.

Future traffic growth consists of two components. The first is ambient background growth that is a result of regional growth and cannot be attributed to a specific project. This growth factor also considers traffic associated with minor, or small, projects for which no traffic data are available.

The second component is estimated traffic that will be generated by other development projects in the vicinity of the proposed project.

Design Year for Traffic Forecasts

The design, or horizon, year of a project is the future year for which background traffic conditions are estimated. The year 2015 is used in this study to be compatible with the traffic studies for other major projects within and adjacent to the study area.

Background Traffic Growth

The *Maui Long Range Land Transportation Study* was used to estimate the background growth rate of traffic along Piilani Highway. The AM and PM peak hour traffic estimates for 1990 and 2020 provided in the report were used to calculate separate growth rates for northbound and southbound peak hour traffic. This data and the calculations are shown in Table 6.

Table 6 Calculation of Background Growth Rate Along Piilani Highway¹

Year	AM Peak Hour		PM Peak Hour	
	Northbound	Southbound	Northbound	Southbound
1990	885	845	1,024	870
2020	1,614	1,136	1,833	1,668
Growth Rate ²	2.02%	0.99%	1.96%	2.19%

Notes:

1. Source: Kaku & Associates, *Maui Long Range Land Transportation Study*, February 1997, p. 67
2. Compounded growth rate.

The highest growth rate of the four rates calculated was used to estimate the background growth of traffic along the study streets between 2006 and 2015. This growth factor was applied to all traffic movements at the study intersections.

Related Projects

The second component in estimating background traffic volumes is traffic resulting from other proposed projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction and would significantly impact traffic in the study area. Related projects may be development projects or roadway improvements.

The projects that were identified as related projects and the estimated number of peak hour trips generated by each are summarized in Table 7. The approximate locations of these projects is shown in Figure 6.

Table 7 Trip Generation Summary of Related Projects

Related Project	Description	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
A Maui Nui Park	Theme Park	16	0	16	190	144	334
B Waipuilani Estates	96 SF	19	55	74	63	35	98
C Kai Makani	116 MF	10	49	59	33	30	63
D Kaonoulu Marketplace	588,670 SF Retail + 32 Acres Lt. Industrial	1,065	785	1,850	1,040	1,080	2,120
E Kaiwahine Subdivision	49 SF	10	28	38	32	18	50
F Maui Lu Resort	400 Timeshares	260	140	400	210	245	455
G Kihei Gateway Expansion	Lt. Industrial + Office + Retail	150	57	207	53	138	191
TOTALS		1,530	1,114	2,644	1,621	1,690	3,311

Related projects include roadway improvements as well as development projects. The following roadway improvements have been identified.

1. The *Maui Long Range Transportation Plan* indicates that the Upcountry Highway will connect with Piilani Highway at Kaonoulu Street, at which time the intersection will be signalized. A schedule for this project was not available. It was assumed that this project would not be completed before the horizon year for this traffic study of 2015.
2. As part of the Kaonoulu Marketplace project, a westbound approach will be added to the intersection and it will be signalized. In addition to providing access to the proposed development, this intersection is also the location where the Upcountry Highway will connect Kihei with Pukalani.
3. The North-South Collector Road will eventually connect north Kihei with the commercial areas to the south and provide some relief to Piilani Highway and South Kihei Road. The status of the North-South Collector Road was discussed with Public Works. We were advised that further work on the North-South Collector Road was on hold pending the completion of an updated long-range traffic plan for Kihei. A tentative completion date was not available.
4. As part of the Maui Lu Resort redevelopment, the intersection of South Kihei Road at Kaonoulu Street will be signalized and separate left turn lanes will be provided for southbound to eastbound left turns.

2015 Background Traffic Projections

2015 background traffic projections were calculated by expanding existing traffic volumes by the appropriate growth rates and then superimposing traffic generated by related projects. The resulting 2015 background peak hour traffic projections are shown in Figures 7 and 8.

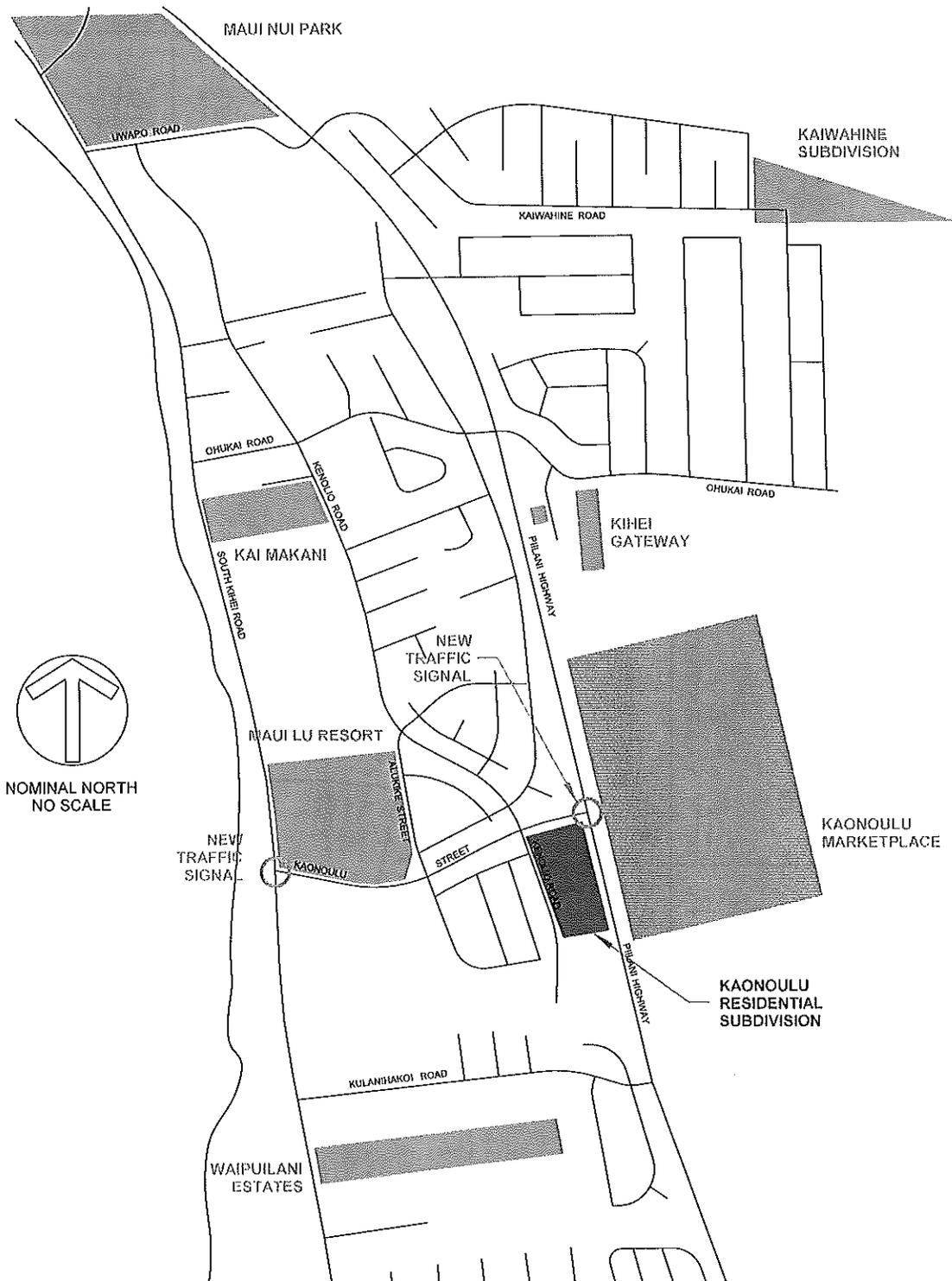
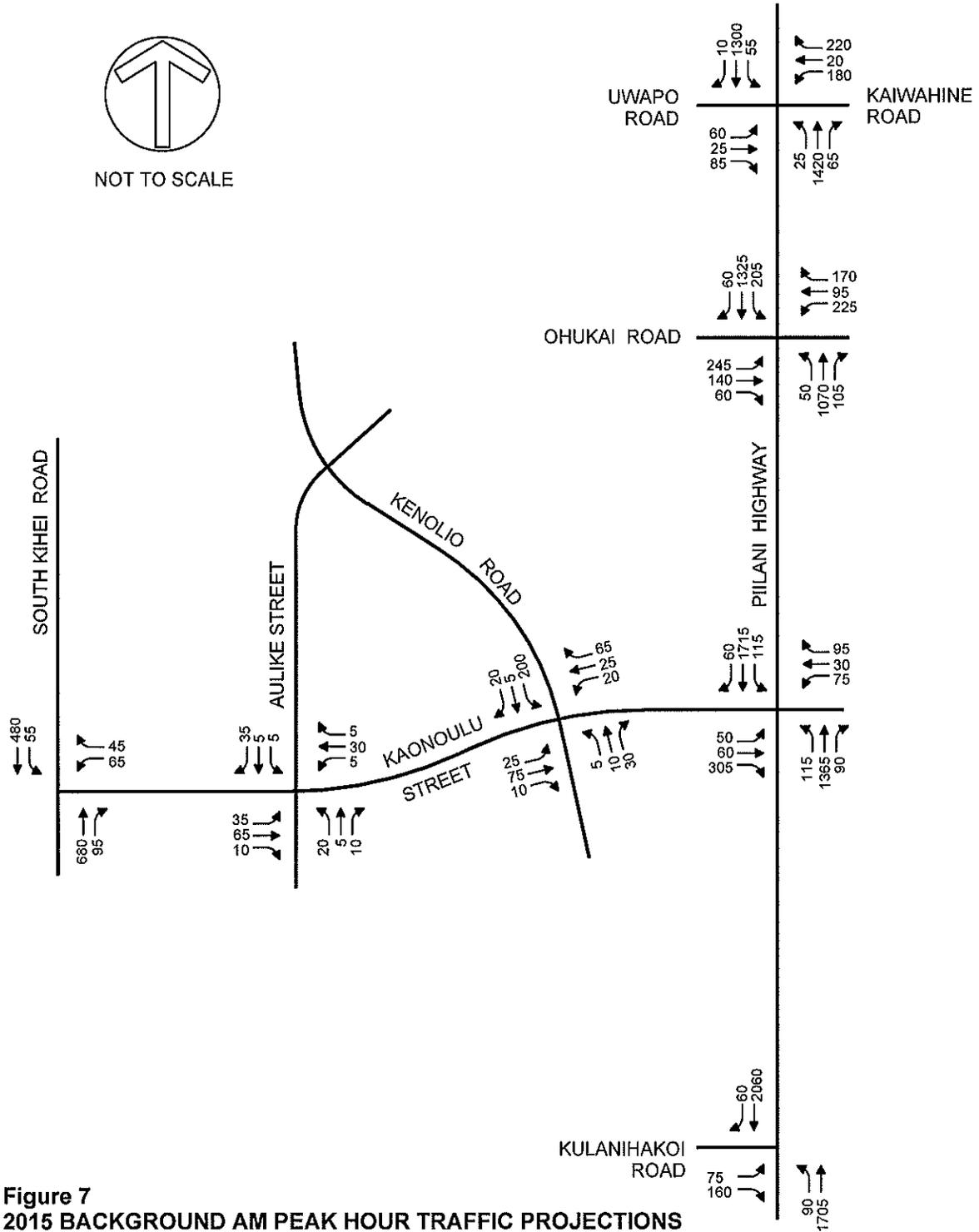


Figure 6
LOCATIONS OF RELATED PROJECTS



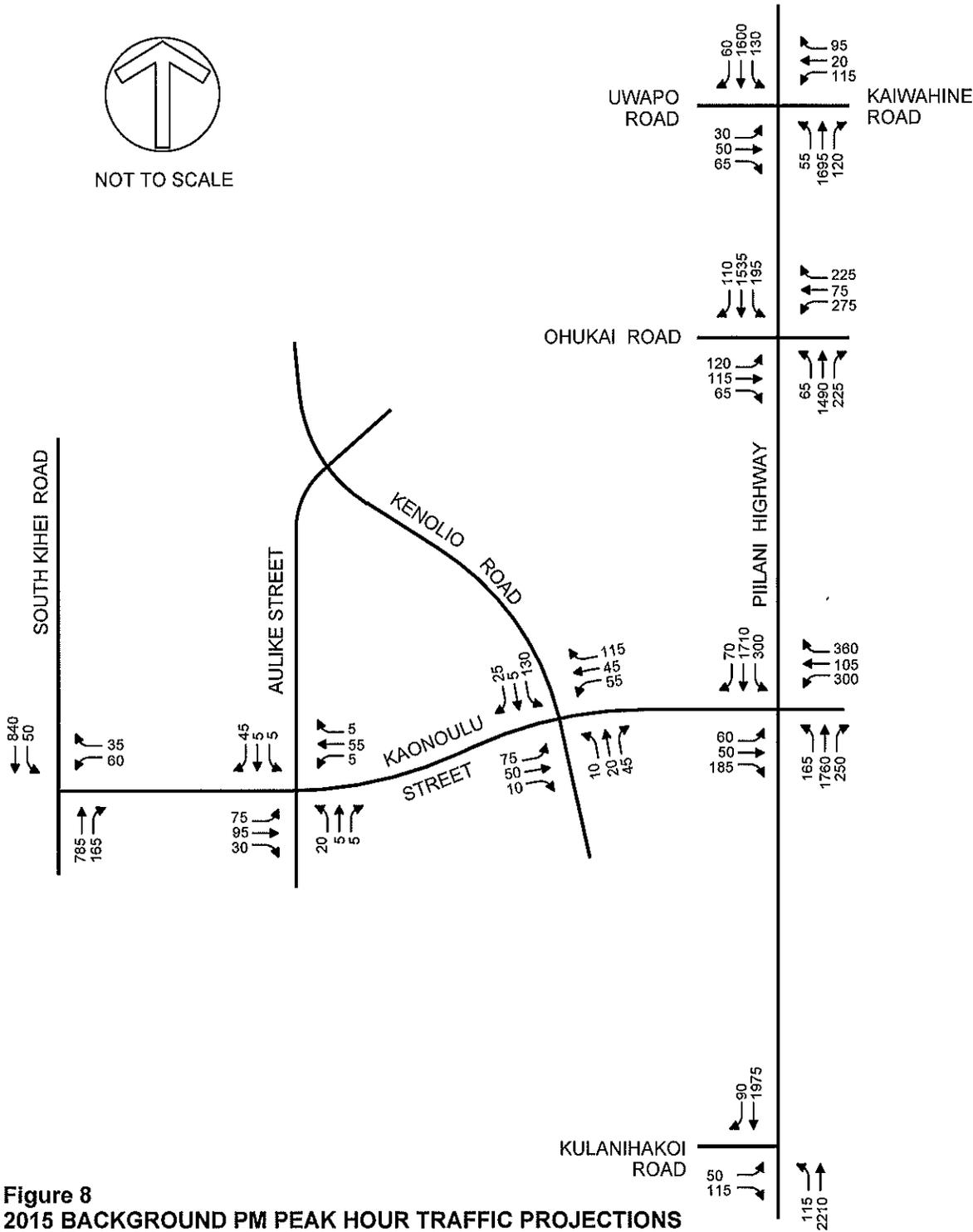


Figure 8
2015 BACKGROUND PM PEAK HOUR TRAFFIC PROJECTIONS

4. PROJECT-RELATED TRAFFIC CONDITIONS

This chapter discusses the methodology used to identify the traffic-related impacts of the proposed project. This chapter presents the generation, distribution and assignment of project generated traffic and the background plus project traffic projections. The result of the level-of-service analysis of background plus project conditions is presented in the following chapter.

Methodology

Future traffic volumes generated by the project were estimated using the procedures described in the *Trip Generation Handbook*² and data provided in *Trip Generation*³. This method used trip generation rates to estimate the number of trips that the project will generate during the peak hours of the project and along the adjacent street.

² Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 1998, p. 7-12

³ Institute of Transportation Engineers, *Trip Generation*, Washington, D.C., 2003

The project will consist of 166 multi-family units. For this study, it was assumed that the proposed dwelling units will be condominiums. Condominiums are defined by the Institute of Transportation Engineers as follows:

*Residential condominiums/townhouses are defined as ownership units that have at least one other owned unit within the same building structure. Both condominiums and townhouses are included in the land use.*⁴

The trip generation analysis is summarized in Table 8. As shown the proposed project will generate 13 inbound and 60 outbound trips during the morning peak hour. During the afternoon peak hour, the project will generate 55 inbound and 31 outbound trips.

Table 8 Trip Generation Analysis

Period & Direction		Multi-Family (Condominium) Units		
		Trips per Unit or Percent	Units	Trips
AM Peak Hour	Total	0.62	166	73
	Inbound	18%		13
	Outbound	82%		60
PM Peak Hour	Total	0.52		86
	Inbound	64%		55
	Outbound	36%		31

The Institute of Transportation Engineers recommends that a traffic impact study should be performed if, in lieu of another locally preferred criterion, development generates an additional 100 vehicle trips in the peak direction (inbound or outbound) during the site's peak hour.⁵ Based on the criterion, a traffic impact study is not warranted. To date, the County of Maui has not established criteria for projects within its jurisdiction.

Trip Distribution and Assignments

The project-related trips were distributed along the anticipated approach routes to the project site based on the directional distribution of existing peak hour traffic along the streets within the study area.

Trips were assigned based on the following assumptions:

1. All traffic movements are allowed at the project driveways along Kenolio Road.
2. The intersection of Piilani Highway at Kaonoulu Street is signalized.
3. The intersection of South Kihei Road at Kaonoulu Street is signalized.

The project morning and afternoon peak hour trip assignments are shown in Figures 9 and 10, respectively.

⁴ Institute of Transportation Engineers, *Trip Generation*, Washington, D.C., 1997, p. 366

⁵ Institute of Transportation, *Transportation Impact Analyses for Site Development, A Recommended Practice*, 2005, page 5.

2015 Background Plus Project Projections

Background plus project traffic conditions are defined as 2015 background traffic conditions plus project related traffic. The incremental difference between background and background plus project is the traffic impact of the project under study.

2015 background plus project traffic projections were estimated by superimposing the peak hourly traffic generated by the proposed project on the 2015 background peak hour traffic volumes presented in Chapter 3. The 2015 background plus the project traffic projections are shown on Figures 11 through 12.

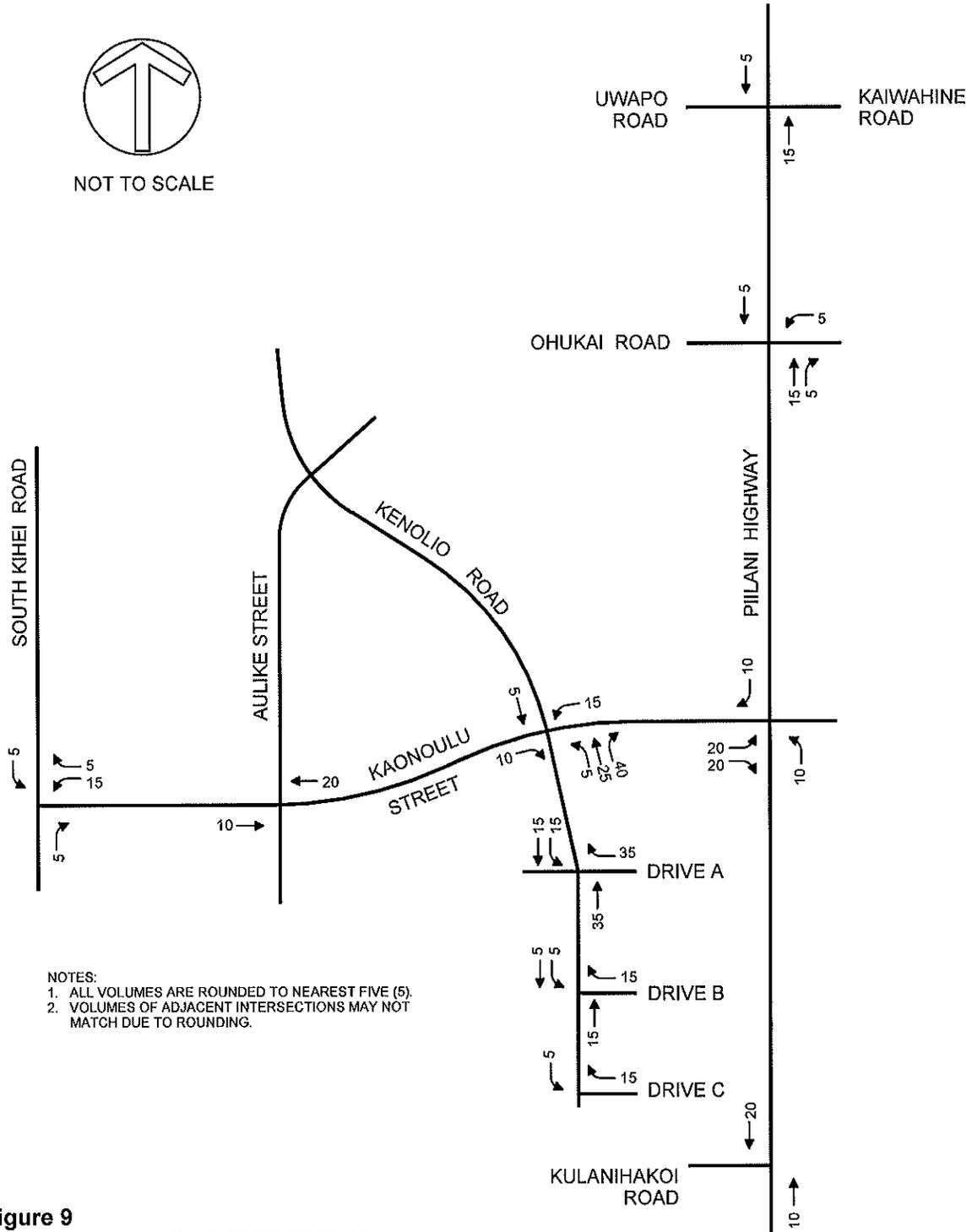


Figure 9
AM PEAK HOUR PROJECT TRIP ASSIGNMENTS

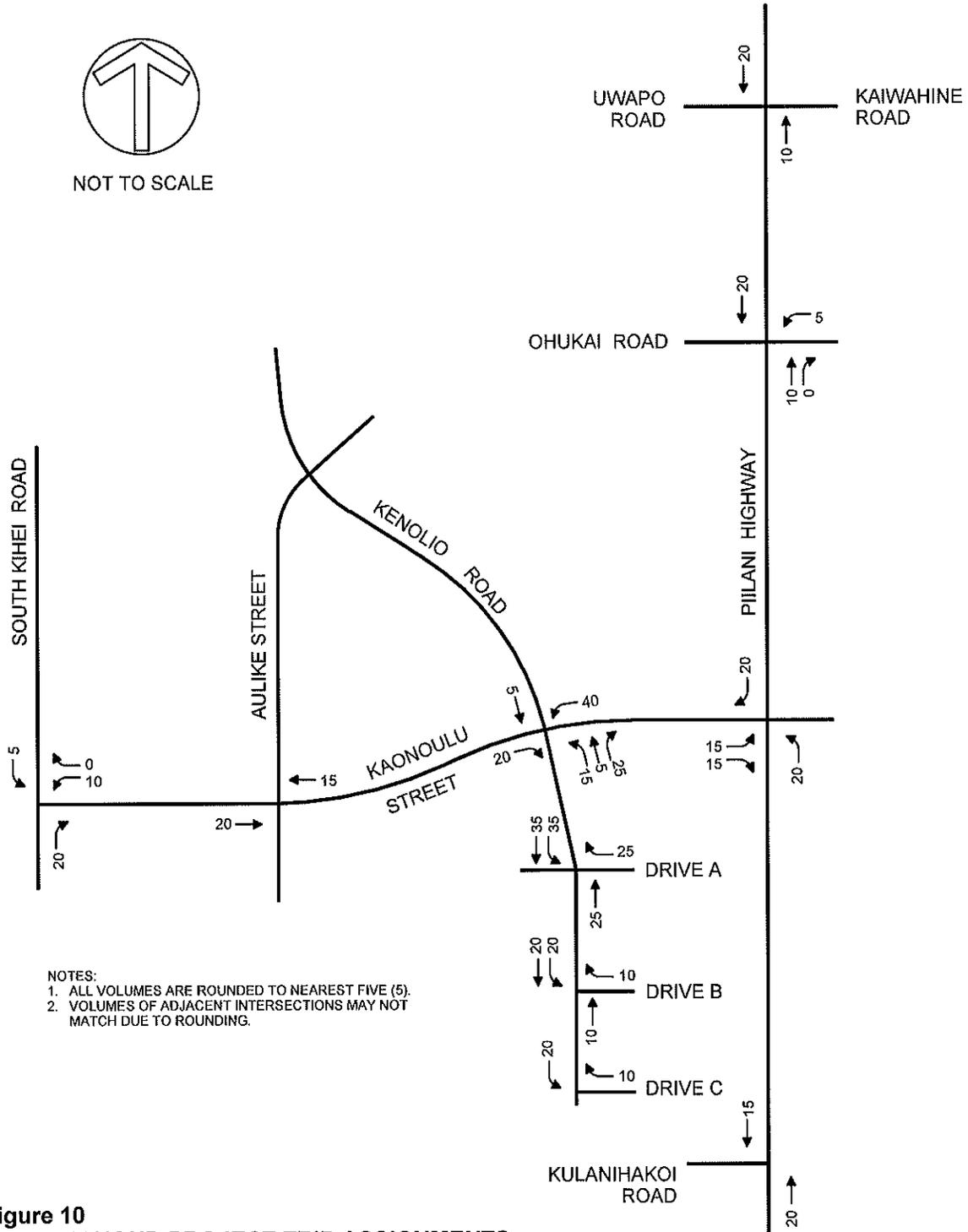


Figure 10
PM PEAK HOUR PROJECT TRIP ASSIGNMENTS

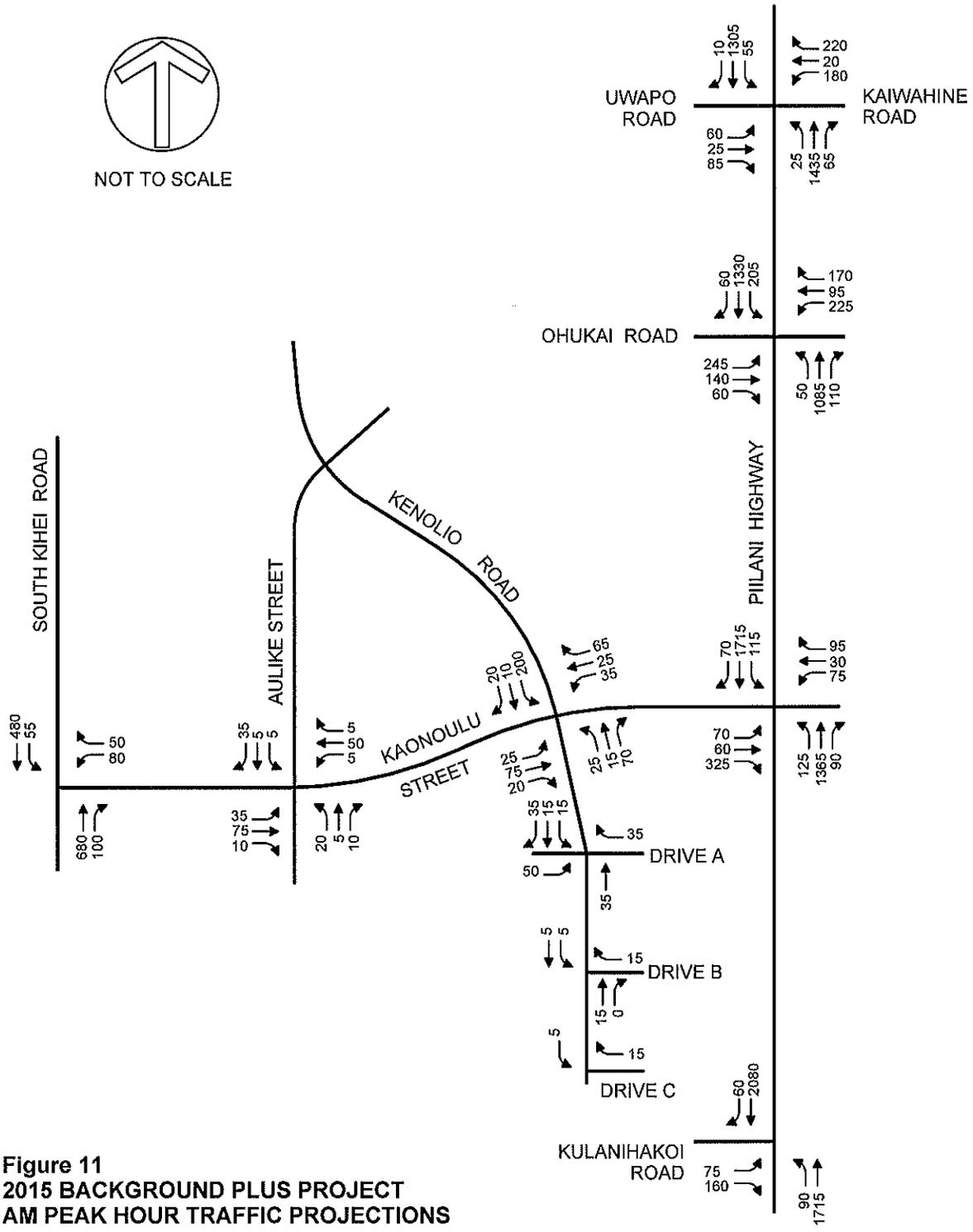
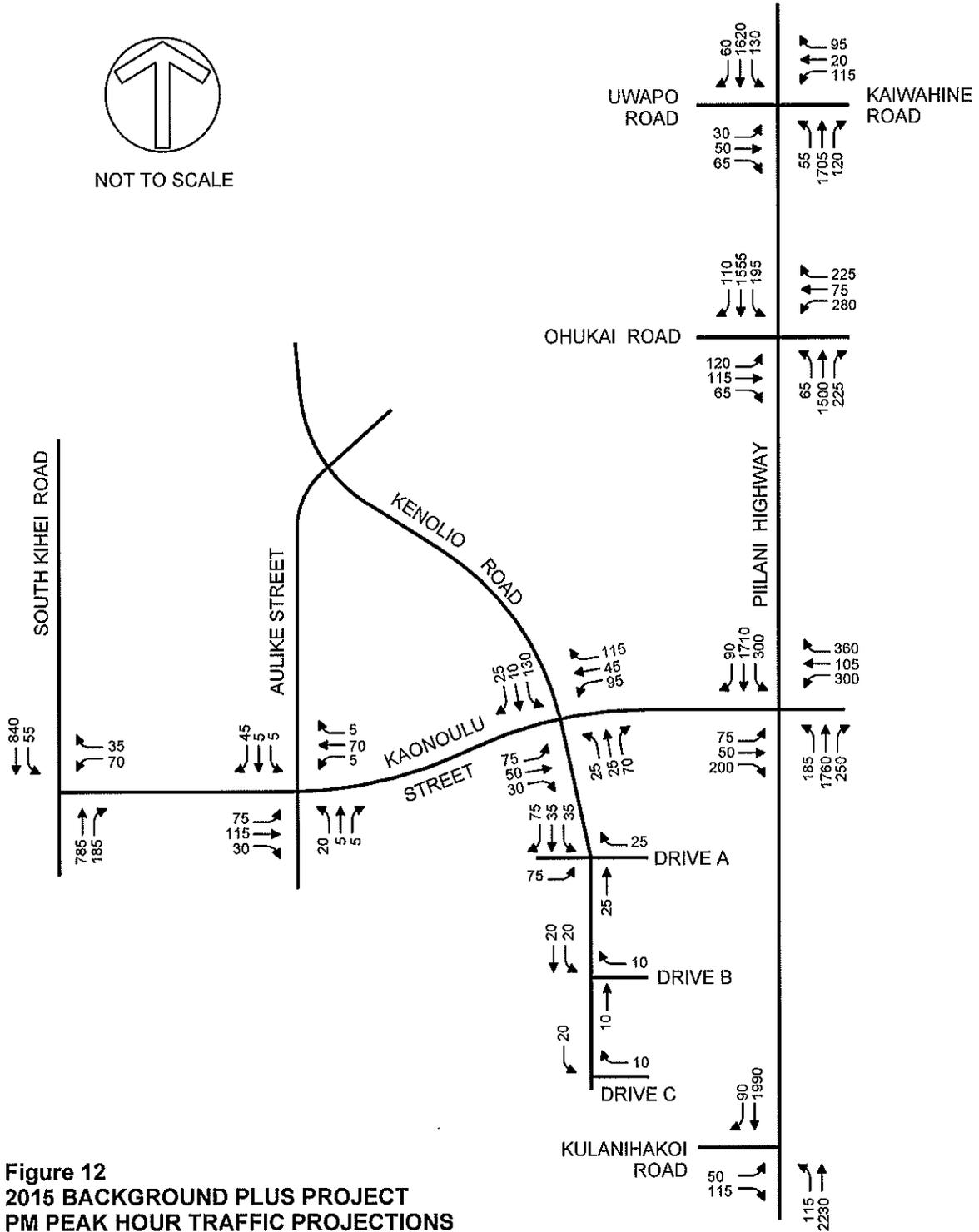


Figure 11
2015 BACKGROUND PLUS PROJECT
AM PEAK HOUR TRAFFIC PROJECTIONS



5. TRAFFIC IMPACT ANALYSIS

The purpose of this chapter is to summarize the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

The impact of the project was assessed by analyzing the changes in traffic volumes and levels-of-service at the study intersections. Mitigation measures are described in the following chapter.

Changes in Total Intersection Volumes

An analysis of the project's share of 2015 background plus project intersection approach volumes at the study intersections is summarized in Table 9. The table summarizes the project's share of total 2015 peak hour approach volumes at each intersection. Also shown are the percentage of 2015 background plus project traffic that is the result of background growth and traffic generated by related projects.

As shown in the table, project generated traffic will represent a minor percentage of traffic at the intersections along Piilani Highway, ranging from approximately 0.6% at the intersection of Piilani Highway at Kaiwahine Road to 1.5% at the intersection of Piilani Highway at Kaonoulu Street. At the intersection of South Kihei Road at Kaonoulu Street, project generated traffic will represent 1.7% of the morning peak hour traffic and 1.8% of the afternoon peak hour traffic. As expected, project generated traffic will represent larger parts of traffic along Kaonoulu Street because the background volumes are small. At the intersections along Kaonoulu Street, project generated traffic will represent between 9.1% and 16.2% of the peak hour traffic.

Table 9 Analysis of Project's Share of Total Intersection Approach Volumes ⁽¹⁾

Intersection	Period	Existing	2015 Background	2015 Background Plus Project	Background Growth		Project Traffic	
					Trips	Percent of Total Traffic ⁽²⁾	Trips	Percent of Total Traffic ⁽³⁾
Piilani Highway at Kaonoulu Street	AM	2800	4075	4135	1275	30.8%	60	1.5%
	PM	3185	5315	5385	2130	39.6%	70	1.3%
Piilani Highway at Ohukai Drive	AM	3085	3750	3775	665	17.6%	25	0.7%
	PM	3700	4495	4530	795	17.5%	35	0.8%
Piilani Highway at Kulanihakoi Rd	AM	3415	4150	4180	735	17.6%	30	0.7%
	PM	3750	4555	4590	805	17.5%	35	0.8%
Kaonoulu Street at Kenolio Drive	AM	405	490	585	85	14.5%	95	16.2%
	PM	475	585	695	110	15.8%	110	15.8%
Kaonoulu Street at Alulike Drive	AM	200	230	260	30	11.5%	30	11.5%
	PM	290	350	385	60	15.6%	35	9.1%
South Kihei Road at Kaonoulu Street	AM	1170	1420	1445	250	17.3%	25	1.7%
	PM	1590	1935	1970	345	17.5%	35	1.8%
Piilani Highway at Kaiwahine Road	AM	2855	3465	3485	610	17.5%	20	0.6%
	PM	3320	4035	4065	715	17.6%	30	0.7%

Notes:

- (1) Volumes shown are total intersection approach volumes or projections.
- (2) Percentage of total 2015 background plus project traffic.

An analysis of the project's pro rata share of the increase of traffic volumes between 2005 and 2015 is summarized in Table 10. This table summarizes the growth between 2005 and 2015 and indicates the percentage of growth resulting from background growth and related projects, and the percentage growth resulting from project generated traffic.

At the intersections along Piilani Highway, project generated traffic represents less than 4.5% of peak hour traffic growth between 2006 and 2015. The remaining growth is the result of background traffic growth and traffic generated by other development projects. The data shown in this table is also an indicator of the projects pro rata share of any proposed improvements at the intersection.

At the intersection of South Kihei Road at Kaonoulu Street, project generated traffic represents 9.1% to 9.2% of the peak hour traffic growth. Also as expected, project generated traffic will represent a larger percentage of the traffic growth along Kaonoulu Street, Kenolio Road and Alulike Street because the other development projects contribute a small number of peak hour trips along these streets.

Table 10 Analysis of Project's Share of Total Intersection Approach Volumes Growth ⁽¹⁾

Intersection	Period	Existing	2015 Background	Background Plus Project	Background Growth ⁽²⁾		Project Trips ⁽³⁾	
					Volume	% of 2005 to 2015 Growth	Volume ⁽⁴⁾	% of 2005 to 2015 Growth
Piilani Highway at Kaonoulu Street	AM	2800	4075	4135	1275	95.5%	60	4.5%
	PM	3185	5315	5385	2130	96.8%	70	3.2%
Piilani Highway at Ohukai Drive	AM	3085	3750	3775	665	96.4%	25	3.6%
	PM	3700	4495	4530	795	95.8%	35	4.2%
Piilani Highway at Kulanihakai Rd	AM	3415	4150	4180	735	96.1%	30	3.9%
	PM	3750	4555	4590	805	95.8%	35	4.2%
Kaonoulu Street at Kenolio Drive	AM	405	490	585	85	47.2%	95	52.8%
	PM	475	585	695	110	50.0%	110	50.0%
Kaonoulu Street at Alulike Drive	AM	200	230	260	30	50.0%	30	50.0%
	PM	290	350	385	60	63.2%	35	36.8%
South Kihel Road at Kaonoulu Street	AM	1170	1420	1445	250	90.9%	25	9.1%
	PM	1590	1935	1970	345	90.8%	35	9.2%
Piilani Highway at Kaiwahine Road	AM	2855	3465	3485	610	96.8%	20	3.2%
	PM	3320	4035	4065	715	96.0%	30	4.0%

Notes:

- (1) Volumes shown are total intersection approach volumes or projections.
- (2) Background versus existing.
- (3) Background plus project versus background.
- (4) Project generated traffic.

Methodology for Level-of-Service Analysis

1. As previously noted, State of Hawaii Department of Transportation (Honolulu) has requested the Synchro software package be used to performed level-of-service analyses. Accordingly, Synchro 6 was used to calculate the traffic signal timings. The timings were then downloaded into the Highway Capacity Software to calculate the levels-of-service of the signalized intersections. Both software packages are based on the *Highway Capacity Manual*.
2. Neither Synchro nor the Highway Capacity Software results report a volume-to-capacity ratio for unsignalized intersections or results for the overall intersection. Shown in the following tables are the delay and level-of-service of each controlled lane group.
3. In the past, the Los Angeles Department of Transportation standard was used to determine the significance of the impacts of project generated traffic. State of Hawaii Department of Transportation has consistently responded that they prefer to use the engineering judgement and discretion to assess the traffic impacts of a project and the effectiveness of possible mitigation measures, along with the standards of the Institute of Transportation Engineers. Accordingly, we have used the Institute of Transportation Engineers standard that a Level-of-Service D is the minimum acceptable level-of-service and that the criteria is applicable to the overall intersection rather than each controlled lane group. Side street approaches and minor movements can operate a Level-of-Service E or F for short periods. If project generated traffic causes the level-of-service of the overall intersection to drop below Level-of-Service D, then mitigation should be provided to improve the level-of-service to Level-of-Service C or better. If the Level-of-Service is E or F without project generated traffic and project generated traffic causes the delay of increase, then mitigation should be provided to improve the delay to be equal to or less than the delay for background without project conditions.

4. As the *Highway Capacity Manual* defines level-of-service by delay, we have used the same definitions.

Results of the Level-of-Service Analysis

The level-of-service analysis was performed for background and background plus project conditions. The incremental difference between the two conditions is the impact of the project. The assumptions used for the level-of-service analysis are:

1. The intersection of South Kihei Road at Kaonoulu Street is signalized.
2. The intersection of Piilani Highway at Kaonoulu Street is signalized and improved to provide the lane configuration required to accommodate the Kaonoulu Marketplace. The mitigation measures recommended for the Kaonoulu Marketplace are currently under review by the developer, but have been considered to be in place as traffic generated by the Marketplace is included in the forecasts. Kaonoulu Street remains a two-lane, two-way roadway.
3. The anticipated lane configurations are shown on Figure 13.

The results of the Level-of-Service analysis of the signalized intersections are summarized in Tables 11 through 14. The results of the Level-of-Service analysis of the unsignalized intersections are summarized in Table 15.

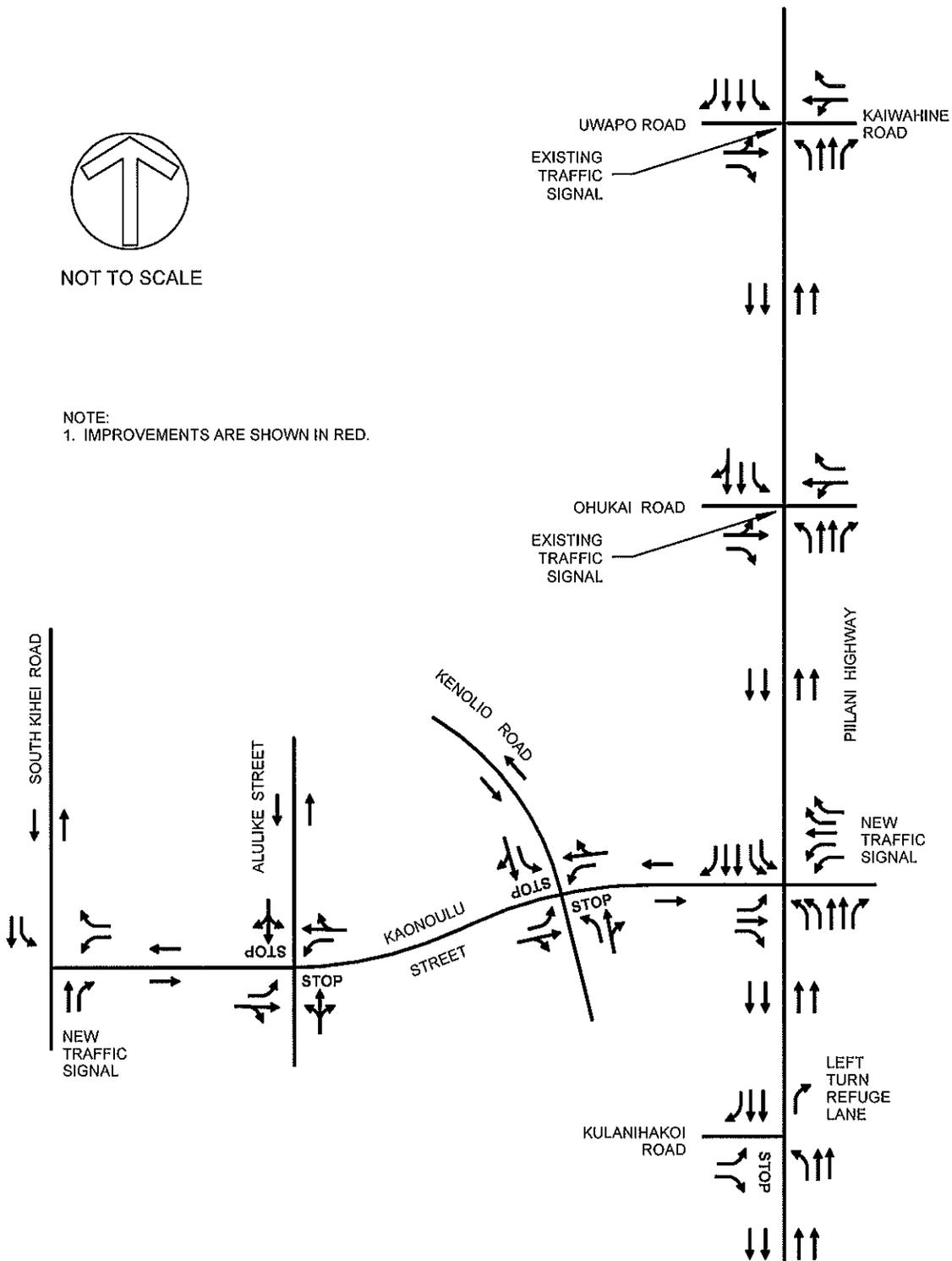


Figure 13
2015 LANE CONFIGURATIONS AND RIGHT-OF-WAY CONTROLS

Table 11 2015 Levels-of-Service Piilani Highway at Kaonoulu Street

Intersection and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²
Total Intersection	0.93	43.2	D	0.95	44.6	D	0.93	51.6	D	0.93	51.9	D
Eastbound Left	0.47	54.6	D	0.66	68.1	E	0.45	64.5	E	0.57	70.6	E
Eastbound Thru	0.18	31.9	C	0.18	31.9	C	0.20	48.3	D	0.20	48.3	D
Eastbound Right	0.58	57.8	E	0.75	71.2	E	0.13	55.0	E	0.17	55.9	E
Westbound Left	0.55	57.0	E	0.55	57.0	E	1.07	127.5	F	1.07	127.5	F
Westbound Thru	0.10	32.6	C	0.10	32.6	C	0.40	51.5	D	0.40	51.5	D
Westbound Right	0.04	41.7	D	0.04	41.7	D	0.14	53.3	D	0.14	53.3	D
Northbound Left	0.42	44.1	D	0.45	44.9	D	0.65	66.4	E	0.73	71.0	E
Northbound Thru	0.79	20.7	C	0.79	20.7	C	0.99	44.8	D	0.99	44.8	D
Northbound Right	0.06	10.5	B	0.06	10.5	B	0.21	14.9	B	0.21	14.9	B
Southbound Left	0.67	60.1	E	0.67	60.1	E	1.07	127.5	F	1.07	127.5	F
Southbound Thru	1.05	59.9	E	1.05	59.9	E	0.94	36.5	D	0.94	36.5	D
Southbound Right	0.05	11.9	B	0.05	11.9	B	0.06	12.7	B	0.07	12.9	B

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

Table 12 2015 Levels-of-Service Piilani Highway at Ohukai Road

Intersection and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²
Total Intersection	1.00	70.3	E	1.00	70.9	E	1.01	72.1	E	1.02	72.9	E
Eastbound Left & Thru	1.04	105.3	F	1.04	105.3	F	1.25	217.4	F	1.25	217.4	F
Eastbound Right	0.05	39.7	D	0.05	39.7	D	0.04	63.4	E	0.04	63.4	E
Westbound Left & Thru	1.05	115.6	F	1.05	115.6	F	1.10	141.8	F	1.11	146.7	F
Westbound Right	12.00	44.3	D	0.12	44.3	D	0.30	55.8	E	0.30	55.8	E
Northbound Left	1.00	185.5	F	1.00	185.5	F	1.29	295.6	F	1.29	295.6	F
Northbound Thru	0.91	50.6	D	0.92	52.0	D	0.90	46.9	D	0.91	44.5	D
Northbound Right	0.10	27.8	C	0.11	27.9	C	0.22	22.5	C	0.22	22.5	C
Southbound Left	1.17	175.5	F	1.17	175.5	F	1.37	274.0	F	1.37	274.0	F
Southbound Thru & Right	0.97	53.4	D	0.98	54.2	D	0.91	38.6	D	0.91	39.6	D

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

Table 13 2015 Levels-of-Service South Kihei Road at Kaonoulu Street

Intersection and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²
Total Intersection	0.56	7.9	A	0.57	8.8	A	0.64	8.3	A	0.65	8.6	A
Westbound Left	0.34	29.4	C	0.36	27.9	C	0.37	35.0	C	0.41	34.8	C
Westbound Right	0.03	27.4	C	0.03	25.9	C	0.02	32.6	C	0.02	32.1	C
Northbound Thru	0.60	8.6	A	0.62	9.6	A	0.66	9.7	A	0.67	10.1	B
Northbound Right	0.07	4.2	A	0.07	4.7	A	0.11	4.3	A	0.13	4.6	A
Southbound Left	0.14	4.2	A	0.15	4.8	A	0.13	5.2	A	0.15	5.5	A
Southbound Thru	0.36	3.3	A	0.38	3.9	A	0.61	5.0	A	0.62	5.2	A

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

Table 14 2015 Levels-of-Service Piilani Highway at Kaiwahine Road

Intersection and Movement	AM Peak Hour						PM Peak Hour					
	Without Project			With Project			Without Project			With Project		
	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²	V/C	Delay ¹	LOS ²
Total Intersection	0.86	27.7	C	0.87	28.5	C	0.92	31.1	C	0.93	31.9	C
Eastbound Left & Thru	0.44	32.6	C	0.44	32.6	C	0.37	35.2	D	0.37	35.2	D
Eastbound Right	0.06	28.7	C	0.06	28.7	C	0.04	32.6	C	0.04	32.6	C
Westbound Left & Thru	0.83	53.1	D	0.83	53.1	D	0.74	49.7	D	0.74	49.7	D
Westbound Right	0.15	29.4	C	0.15	29.4	C	0.06	32.7	C	0.06	32.7	C
Northbound Left	0.77	110.9	F	0.77	110.9	F	0.55	46.4	D	0.55	46.4	D
Northbound Thru	0.96	38.0	D	0.97	39.8	D	1.02	47.8	D	1.02	49.6	D
Northbound Right	0.04	13.7	B	0.05	13.7	B	0.09	11.5	B	0.09	11.5	B
Southbound Left	0.17	30.5	C	0.17	30.5	C	0.39	34.3	C	0.39	34.3	C
Southbound Thru	0.62	11.0	B	0.63	11.1	B	0.75	13.1	B	0.76	13.4	B
Southbound Right	0.01	5.9	A	0.01	5.9	A	0.04	5.7	A	0.04	5.7	A

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

Table 15 2015 Levels-of-Service Unsignalized Intersections

Intersection and Movement	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
	Delay ¹	LOS ²						
<i>Piilani Highway at Kulanihako'i Road</i>								
Northbound Left	12.1	B	30.7	D	32.4	D	33.0	D
Eastbound Left	41.1	E	311.5	F	197.2	F	203.7	F
Eastbound Right	16.6	C	66.0	F	36.5	E	37.3	E
<i>Kaonoulu Drive at Kenolio Drive</i>								
Eastbound Left	7.4	A	7.4	A	7.7	A	7.7	A
Westbound Left	7.4	A	7.4	A	7.4	A	7.5	A
Northbound Left	10.3	B	11.0	B	12.8	B	14.8	B
Northbound Thru & Right	9.4	A	9.6	A	10.5	B	11.0	B
Southbound Left	12.9	B	15.1	C	17.0	C	21.8	C
Southbound Thru & Right	9.0	A	9.5	A	9.6	A	10.5	B
<i>Kaonoulu Drive at Aluliike Street</i>								
Eastbound Left	7.3	A	7.4	A	7.4	A	7.5	A
Westbound Right	7.4	A	7.4	A	7.5	A	7.5	A
Northbound Left, Thru & Right	9.9	A	10.1	B	11.6	B	11.9	B
Southbound Left, Thru & Right	9.0	A	9.1	A	9.3	A	9.5	A

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

The conclusions of the level-of-service analysis of the signalized intersections are:

Signalized Intersections

- For 2015 conditions, the intersection of Piilani Highway at Kaonoulu Street will operate at Level-of-Service D during the morning and afternoon peak hours without and with project generated traffic. These results consider traffic improvements required for the Kaonoulu Marketplace project since traffic generated by the Marketplace is included in the traffic forecasts.

The study project adds traffic to the northbound left turn, the southbound right turn and the eastbound left and right turns. The northbound left turn will operate at Level-of-Service D during the morning peak hour. During the afternoon peak hour, the left turn will operate at Level-of-Service E based on delay, but the volume-to-capacity ratio indicates Level-of-Service C, or better. This implies that the long delay and therefore the low level-of-service is the result of the long traffic signal cycle. The southbound right turn will operate at Level-of-Service B during both peak hours.

The eastbound left and right turns will operate at Level-of-Service E during both peak periods based on the delay. However, the volume-to-capacity ratio indicates Level-of-Service C, or better.

- The intersection of Ohukai Road at Piilani Highway will operate at Level-of-Service E during both the morning and afternoon peak hours without and with project generated traffic. There is no change in the level-of-service of any movement as a result of project generated traffic. The study project adds traffic to the westbound left and thru movement, the northbound through and right movements and the southbound through movement. There is no change in the delay or Level-of-Service during the morning peak hour of the westbound left and through. The afternoon delay increases only 4.9 seconds and the Level-of-Service is F, without and with the project. The northbound through movement will operate at Level-of-Service D and the northbound right turn will

operate at Level-of-Service C without and with the project. The southbound through and right will operate at Level-of-Service D without and with the project.

3. The intersection of Kaonoulu Street at South Kihei Road will operate at Level-of-Service A during the morning and afternoon peak hours. All movements will operate at Level-of-Service C, or better.
4. The intersection of Piilani Highway at Kaiwahine Road will operate at Level-of-Service C during both peak periods. All movements will operate at Level-of-Service D, or better, except the northbound left turn during the morning peak hour. However, the volume-to-capacity ratio indicates Level-of-Service C. This implies that the long delay and the low level-of-service is the result of traffic having to wait for the signal to cycle through the other phases.

Unsignalized Intersections

The conclusions of the level-of-service analysis of the signalized intersections are:

1. The intersection of Piilani Highway at Kulanihakoi Road will operate at Level-of-Service F during both peak periods. A preliminary assessment of the peak hour traffic signal warrant determined that the warrants for a traffic signal are satisfied for the morning and afternoon peak hours. As a signalized intersection, the intersection will operate at Level-of-Service C during the morning peak hour and Level-of-Service B during the afternoon peak hour. Since project generated traffic represents a small percentage of the total projected traffic (3.9% during the morning peak hour and 4.2% during the afternoon peak hour) and because the traffic signal is warranted without the study project, the developer should be responsible of only a pro rata share.
2. At the intersection of Kaonoulu Street at Kenolio Road, all movements will operate at Level-of-Service C, or better.
3. At the intersection of Kaonoulu Street at Alulike Street, all controlled movements will operate at Level-of-Service A or B. No mitigation is required for the project. However, traffic calming was discussed at the Planning Commission hearing for the Maui Lu Resort Redevelopment Project and was agreed to by the developer. At that time, a roundabout was the preferred alternative. As a roundabout, this intersection will operate at Level-of-Service B during both morning and afternoon peak hours.

Project Driveways

The results of the Level-of-Service analysis of the project driveways are summarized in Table 16. The level-of-service analysis assumed that all movements are allowed and that there are no left turn lanes at Drives B and C. It was assumed that separate left turn lanes are provided at Drive A, which is consistent with the STOP sign controlled intersections along Kenolio Road. All movements will operate at Level-of-Service A or B.

Table 16 2015 Levels-of-Service Driveways

Intersection and Movement	AM Peak Hour		PM Peak Hour	
	Without Project		Without Project	
	Delay ¹	LOS ²	Delay	LOS
Kenolio Road at Drive A				
Northbound Left	7.3	A	7.4	A
Southbound Left	7.3	A	7.3	A
Westbound Left, Thru & Right	8.6	A	8.5	A
Eastbound Left, Thru & Right	9.6	A	10.4	B
Kenolio Road at Drive B				
Southbound Left & Thru	7.2	A	7.2	A
Westbound Left & Right	8.4	A	8.4	A
Kenolio Road at Drive c				
Southbound Left & Thru	7.2	A	7.2	A
Westbound Left & Right	8.3	A	8.3	A

NOTES:

(1) Delay is in seconds per vehicle.

(2) LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. Level-of-Service is based on delay.

6. RECOMMENDATIONS

The following are recommendations for roadway improvements and programs for the developer of the study project. The level-of-service analysis discussed in the previous chapter concluded that several movements at the intersections along Piilani Highway will operate at below acceptable levels-of-service. The study project does not add traffic to these movements or the volume-to-capacity ratio implies a higher level-of-service than the level-of-service implied by the average vehicle delay. The conclusion of this is that adjustment of the traffic signal timing could reduce the delays and therefore improve the level-of-service.

It should also be understood that the recommendations for the roadway improvements are based on 2015 traffic forecasts that include traffic from several new development projects in the study area. The projects most likely will not develop to a density that will generate the traffic estimated in this report. The peak hour traffic forecasts used in this traffic analysis most likely will not be realized.

1. The North-South Collector Road will divert traffic from Piilani Highway and therefore have a positive impact on traffic flows along the highway. It is understood that development of the North-South Collector is on hold pending an update of the long-range traffic plan for Kihei. One of the objectives of the update will be to determine whether the North-South Collector should be two or four lanes wide. In the meantime, the viability of providing at least a two-lane roadway connection between Kaonoulu Street and Kulanihakoi Road using an at-grade crossing of the gulch south of the study project should be investigated. If viable, the developer should be responsible for a pro rata share of the costs.
2. The developer should be responsible for a pro rata share of future traffic improvements at the intersection of Piilani Highway at Kulanihakoi Road.

APPENDIX A

SITE PLAN



M/G ARCHITECTURAL GROUP
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 FAX: (808) 551-1112
 WWW.MGARCHITECT.COM



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KAONO ULU PHASE VI
Kihei, Maui, Hawaii
 MKR (2)X-N-00X-VV

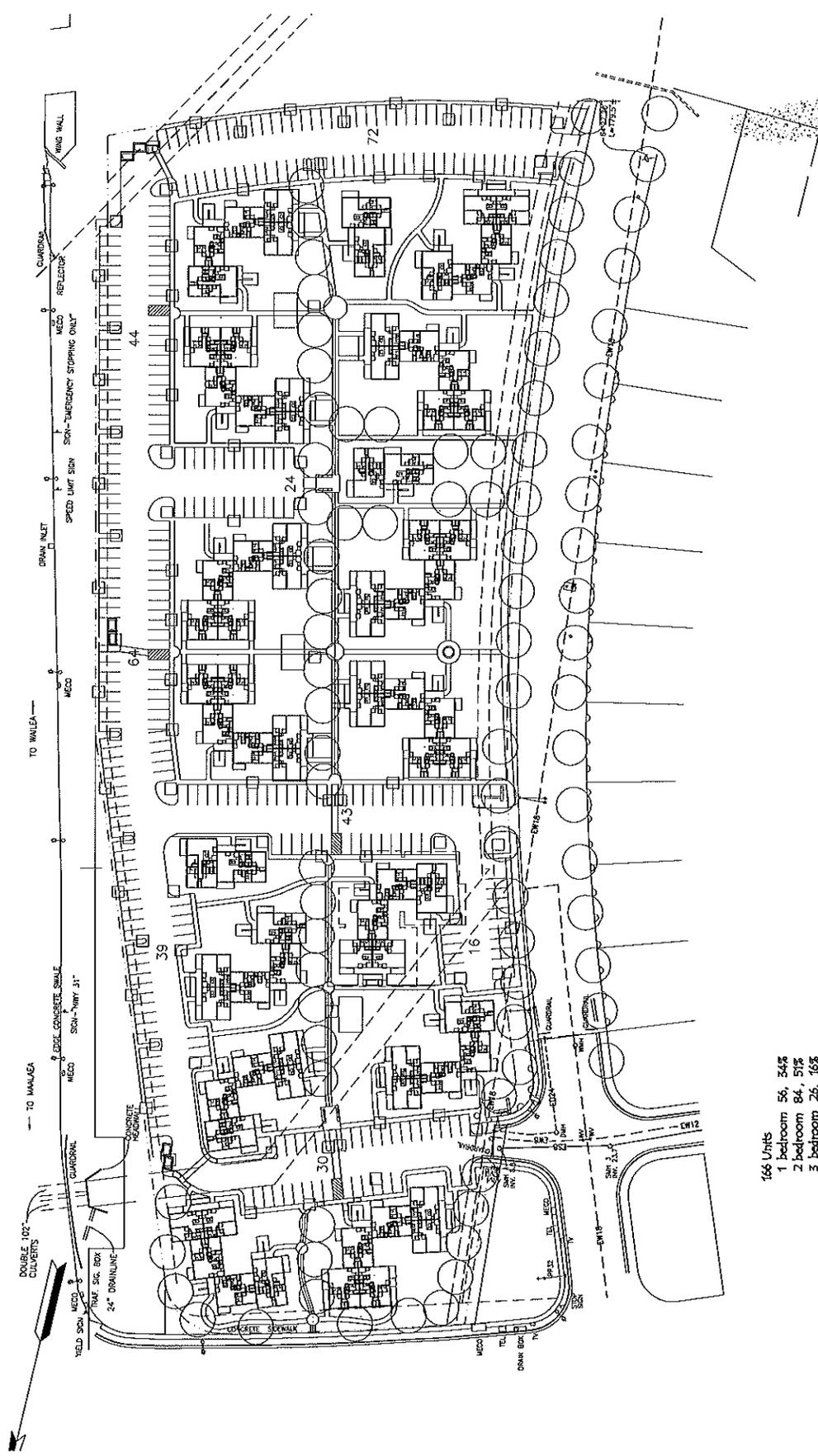
SITE PLAN

FLOOR PLAN

DATE: 20 APR 07
 SCALE: 1" = 40'-0"
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 DATE: 05/08/07

A1.0

Sheet



- 166 Units
- 1 bedroom 56, 34%
- 2 bedroom 84, 51%
- 3 bedroom 26, 16%
- Parking req 332 plan 332

1 SITE PLAN
 Scale: 1" = 40'-0"

Appendix B

Suggested Requirements for Various Types of Traffic Impact Analyses⁶

	Trip Generation Threshold			
	Access Location & Design Review	Small Development: Traffic Impact Assessment	Medium Development: Traffic Impact Statement	Large Development: Regional Traffic Analysis
	T ≤ 100 Peak Hour Trips	100 < T ≤ 500 Peak Hour Trips	500 < T ≤ 1000 Peak Hour Trips	T > 1000 Peak Hour Trips
Pre-application meeting or discussion	✓ ²	✓	✓	✓
Analysis of Roadway Issues				
Existing condition analysis within study area	✓	✓	✓	✓
Sight distance evaluation	✓	✓	✓	✓
Nearby driveway locations	?	✓	✓	✓
Existing traffic conditions at nearby intersections and driveways		✓	✓	✓
Future road improvements		?	✓	✓
Crash experience in proximity to site	?	✓	✓	✓
Trip generation of adjacent development		?	✓	✓
Trip distribution analysis		✓	✓	✓
Background traffic growth		?	✓	✓
Future conditions analysis at nearby intersections		?	✓	✓
Mitigation identification and evaluation		?	?	✓
Site Issues				
Traffic generation	✓	✓	✓	✓
Traffic distribution	?	✓	✓	✓
Evaluate number, location & spacing of access points	?	✓	✓	✓
Evaluate access design, queuing, etc.	✓	✓	✓	✓
Evaluate site circulation	✓	✓	✓	✓
Other Analyses				
Gap analysis for unsignalized locations		?	?	✓
TSM/TDM ⁷ Mitigation measures (car- or van-pooling, transit, etc.)- transit agency participation			?	✓
Effect on traffic signal progression, analysis of proposed signal locations	8	3	?	✓

Key: ✓ = required

? = may be appropriate on a case-by-case basis

⁶ Institute of Transportation Engineers, *Transportation and Land Development*, Washington, D.C., 2002, p.3-6

⁷ TSM/TDM = Transportation System Management/Transportation Demand Management

⁸ A traffic signal should not be permitted.



APPENDIX G
PROPERTY OWNERS WITHIN 500 FEET AND MAP



Copyright 2004, County of Maui

0 321.09ft 0 0.08mi

Kaonoulu VI
500 FT Buffer Map

May
2007

Owner's within 500 Ft



COUNTRY

TMK	CPR	COMPANY	NAME	ADDRESS	city
222002015	0	KAONOULU RANCH	C/O KAONOULU RANCH LLLP	P O BOX 390	KULA HI 96790
222025012	0	KAIWI,CORNWELL U		784 MAHEALANI PL	KIHEI HI 96753
222025013	0	SARMIENTO,DERRICK ARNOLD		786 MAHEALANI PL	KIHEI HI 96753
239001016	0	MAUI INDUSTRIAL PARTNERS,LLC		1999 AVE OF THE STARS, STE 2850	LOS ANGELES CA 90067
239001148	0	KENRANES LTD		635 KENOLIO RD	KIHEI HI 96753
239001149	0	HAWAIIAN ASSOC OF SEVENTH-DAY ADVENTISTS		2728 PALL HWY	HONOLULU HI 96817
239001156	0	KENRANES LTD		635 KENOLIO RD	KIHEI HI 96753
239001157	0	PILANI MAKAI INC		635 KENOLIO RD	KIHEI HI 96753
239001158	0	RDD LLC	C/O DOYLE BETSILL	635 KENOLIO RD	KIHEI HI 96753
239001159	0	KENOLIO DEVELOPMENT INC		635 KENOLIO RD	KIHEI HI 96753
239001161	0	KENOLIO DEVELOPMENT INC		635 KENOLIO RD	KIHEI HI 96753
239001164	0	KENRANES LTD		635 KENOLIO RD	KIHEI HI 96753
239044032	0	KENAGY,ADAM T	C/O KENAGY, ADAM & ZEINA	38 HAKOI PL	KIHEI HI 96753
239044033	0	DI FUSCO,TRUST	C/O DI FUSCO,ANGELO	1612 EDGECLIFFE DR	LOS ANGELES CA 90026
239044034	0	MANIBOG,ERNESTO		30 HAKOI PL	KIHEI HI 96753
239048027	0	REED,ROBERT MONROE	REED,ROBERT/SUK	584 KAIOLA ST	KIHEI HI 96753
239048028	0	HANSON,THOMAS W		730 SAN BRUNO AVE	SAN FRANCISCO CA 94107
239048029	0	GOMEZ,COLLEEN CASTRO		592 KAIOLA ST	KIHEI HI 96753
239048030	0	AGAPAY,JUAN A		596 KAIOLA ST	KIHEI HI 96753
239048031	0	ABUT,BENNY C		598 KAIOLA ST	KIHEI HI 96753
239048033	0	DILIBERTO,LOUIS J		574 PAPAU HIKINA PL	KIHEI HI 96753
239048035	0	SILADO,GEORGIA		580 PAPAU HIKINA PL	KIHEI HI 96753
239048084	0	LASBURY,ALVIN T EXEMPTION TRUST	C/O BETTY L LASBURY, TTEE	151 AULI DR	PUKALANI HI 96768
239048085	0	NATIVIDAD,CANDIDO D		157 MAKALAUNA STREET	KIHEI HI 96753
239048086	0	TAKASAWA,TADAO		602 KAIOLA STREET	KIHEI HI 96753
239048087	0	OKUDA,ALAN MICHIO		65 KONO PLACE	KAHULUI HI 96732
239048088	0	YATSUNOFF,EUGENE JEROME	EUGENE & JUNE YATSUNOFF	PO BOX 1192	KIHEI HI 96753
239048115	0	DODSON,SHIRLEE R		617 KAIOLA ST	KIHEI HI 96753
239048116	0	GARCIA,FRANCISCO		615 KAIOLA ST	KIHEI HI 96753
239048117	0	GRIM,SAMMY		611 KAIOLA ST	KIHEI HI 96753
239048118	0	PELAYO,DEMI C		609 KAIOLA ST	KIHEI HI 96753
239048119	0	KAUFMAN,MICHAEL GRAVERAET	KAUFMAN,MICHAEL/MEGGIN	605 KAIOLA ST	KIHEI HI 96753
239048120	0	BUNIEL,MARLON C		603 KAIOLA ST	KIHEI HI 96753
239048122	0	KENRANES LTD		635 KENOLIO RD	KIHEI HI 96753
239048124	0	BOYLEN,DALE E	BOYLEN,DALE/CAROL	597 KAIOLA ST	KIHEI HI 96753
239048138	0	SEKI,GUY MASARU		577 KAIOLA ST	KIHEI HI 96753
239048140	0	DUNFORD-PELLEGRIN,RUTH A		585 KAIOLA ST	KIHEI HI 96753
239048141	0	SKINNER,WILLIAM P ETAL		P O BOX 6024	KAHULUI HI 96732
239048142	0	CHEE,DERICK S P		589 KAIOLA ST	KIHEI HI 96753
239048143	0	NAGAMINE,ROBERT JR/CHERYL	REHRIG,WILLIAM	605 KUUHOME PL	KIHEI HI 96753
239048144	0	REHRIG,WILLIAM		P O BOX 881	PUUNENE HI 96784
239048145	0	PADRON,MYLES ANDREW		100 KUULA ST	KAHULUI HI 96732
239048146	0	NATIVIDAD,JORGE PASCUA		621 KUU HOME PL	KIHEI HI 96753
239048147	0	FAJARDO,ROSELLIE M		620 KUUHOME PL	KIHEI HI 96753
239048148	0	YALON,ARTURO		635 KENOLIO RD	KIHEI HI 96753
239048150	0	BETSILL BROS CONSTRUCTION		599 KAIOLA ST	KIHEI HI 96753
239048150	0	KENRANES LTD		595 KAIOLA ST	KIHEI HI 96753
239048152	0	TAKASAKI,KIEFER M		P O BOX 784	PUUNENE HI 96784
239048153	0	WING-LOFARO,TARA ANNA		6717 YELLOWHAMMER PLACE	NORTH LAS VEGAS NV 89084
239048154	0	KOEHNE,CYNTHIA J		614 KUU HOME PLACE	KIHEI HI 96753
239048155	0	ALIBIN,EDUARDO C	EDUARDO C ALIBIN, ET AL	618 KUU HOME PLACE	KIHEI HI 96753
239048155	0	ALIBIN,EUFEMIO			
239048156	0	ATKINSON, WILLIAM K ETAL			



APPENDIX H
ARCHITECTURAL DRAWINGS

KA ONO ULU- PHASE 6

KIHEI, MAUI, HAWAII

TMK: (2) 3-9-001 : 157 & 158

TOTAL UNIT SUMMARY		
BUILDING TYPE 'A'		
BUILDING NUMBER	BUILDING SQ. FTG.	UNITS PER BUILDING
1 A	4506.5	10
3A	4506.5	10
4A	4506.5	10
5A	4506.5	10
7A (rev.)	4506.5	10
15A	4506.5	10
17A (rev.)	4506.5	10
7	31545.5	70
BUILDING TYPE 'B'		
BUILDING NUMBER	BUILDING SQ. FTG.	UNITS PER BUILDING
2B	5215.0	12
8B (rev.)	5215.0	12
9B (rev.)	5215.0	12
10B	5215.0	12
11B	5215.0	12
13B (rev.)	5215.0	12
14B (rev.)	5215.0	12
7	36505.0	84
BUILDING TYPE 'C'		
BUILDING NUMBER	BUILDING SQ. FTG.	UNITS PER BUILDING
6C	2329.0	4
12C	2329.0	4
16C	2329.0	4
3	6987.0	12
TOTAL NO. OF BLDNGS	TOTAL BLDNG. SQ. FTG.	TOTAL NO. OF UNITS
17	75037.5	166

TOTAL BUILDING SQ. FTG. SUMMARY			
	NO. OF BLDNG. TYPES	GROUND FLOOR SQ. FTG.	TOTAL BLDNG. SQ. FTG.
BUILDING TYPE 'A'	7	4506.5	31545.5
BUILDING TYPE 'B'	7	5215.0	36505.0
BUILDING TYPE 'C'	3	2329.0	6987.0
			75037.5

PARKING SUMMARY	
APARTMENTS REQUIRE 2 STALLS PER UNIT	
TOTAL NO. OF UNITS= 166 X 2= 332 STALLS REQUIRED	
COMPACTS	
STANDARD	327
HANDICAP	8
TOTAL NO. OF STALLS =	335

INDEX TO DRAWINGS	
SHEET	DESCRIPTION
A0	TITLE SHEET
A1	RENDERING BUILDING TYPE 'A'
A2	RENDERING BUILDING TYPE 'B'
A3	RENDERING BUILDING TYPE 'C'
A4	SITE PLAN
A5	BUILDING TYPE 'A'
A6	BUILDING TYPE 'B'
A7	BUILDING TYPE 'C'
A8	TYPICAL 1 BEDROOM UNIT
A9	TYPICAL 2 BEDROOM UNIT
A10	TYPICAL 3 BEDROOM UNIT





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KA ONO ULU - PHASE 6
Kihei, Maui, Hawaii

RENDERING
BUILDING 'A' ENTRY VIEW

11/27/07

A1

Sheet 2 of 11



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KA ONO ULU - PHASE 6
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RENDERING
BUILDING 'B' ENTRY VIEW

11/27/07

A2

Sheet 3 of 11



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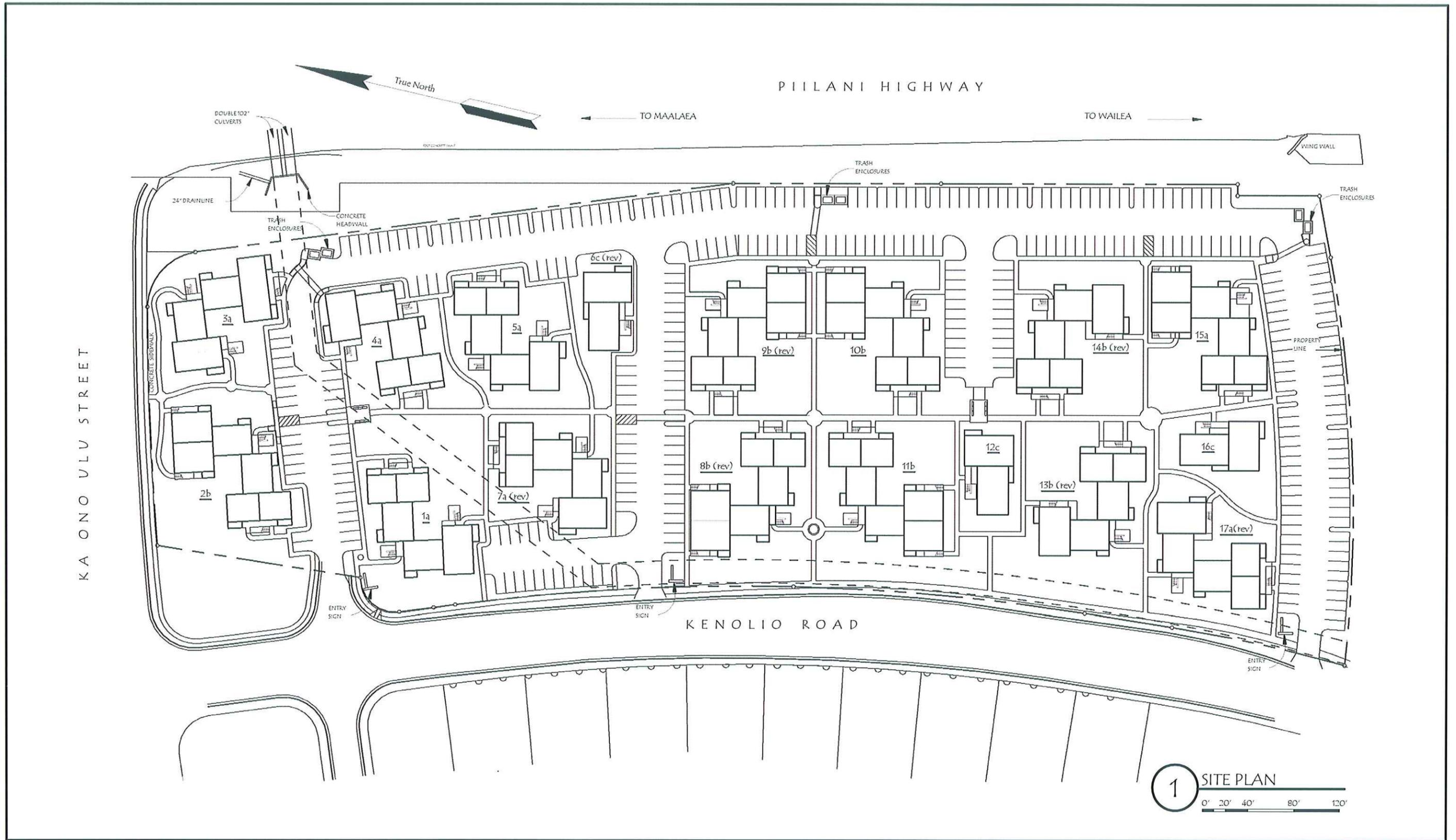
KA ONO ULU - PHASE 6
Kihei, Maui, Hawaii

RENDERING
BUILDING 'C' ENTRY VIEW

11/27/07

A3

Sheet 4 of 11



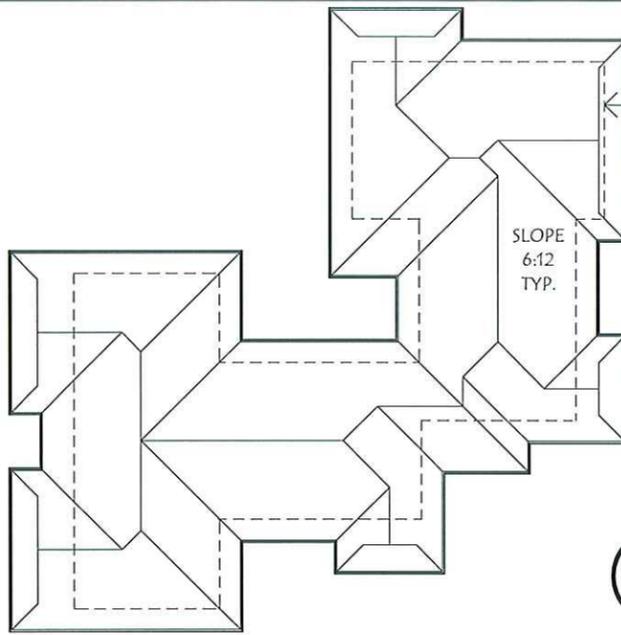
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SITE PLAN

11/27/07
 A4
 Sheet 5 of 11

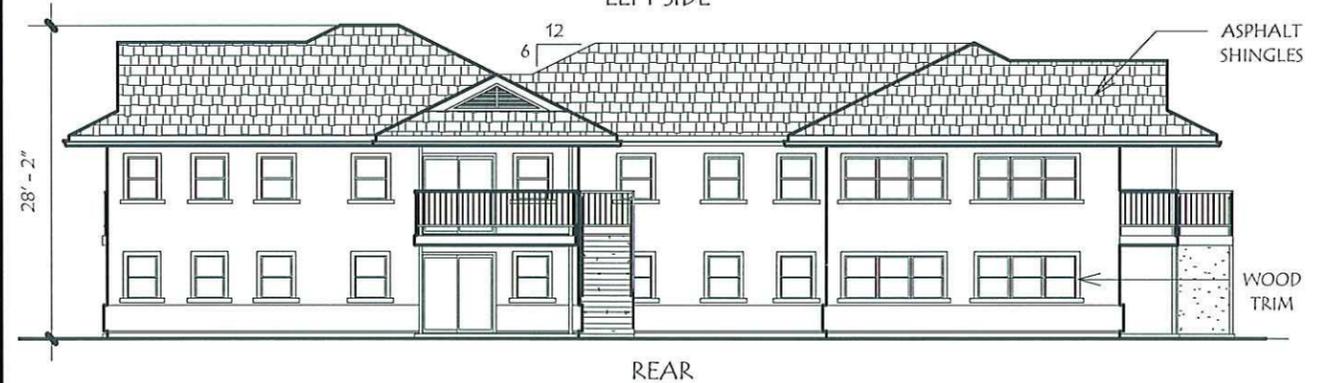


APPROX. SQ. FTG.-BUILDING TYPE 'A'

FLOOR	LIVING	LANAI	TOTAL SQ.FT.
GROUND FLOOR			
1 BEDROOM	672	62.5	
1 BEDROOM (rev.)	672	62.5	
2 BEDROOM	884	52.5	
2 BEDROOM (rev.)	884	52.5	
3 BEDROOM	1092	72.5	
TOTAL GROUND FLOOR	4204.0	302.5	4506.5
SECOND FLOOR			
1 BEDROOM	672	62.5	
1 BEDROOM (rev.)	672	62.5	
2 BEDROOM	884	52.5	
2 BEDROOM (rev.)	884	52.5	
3 BEDROOM	1092	72.5	
TOTAL SECOND FLOOR	4204.0	302.5	4506.5
TOTAL SQ.FTG. BOTH FLOORS			9013.0

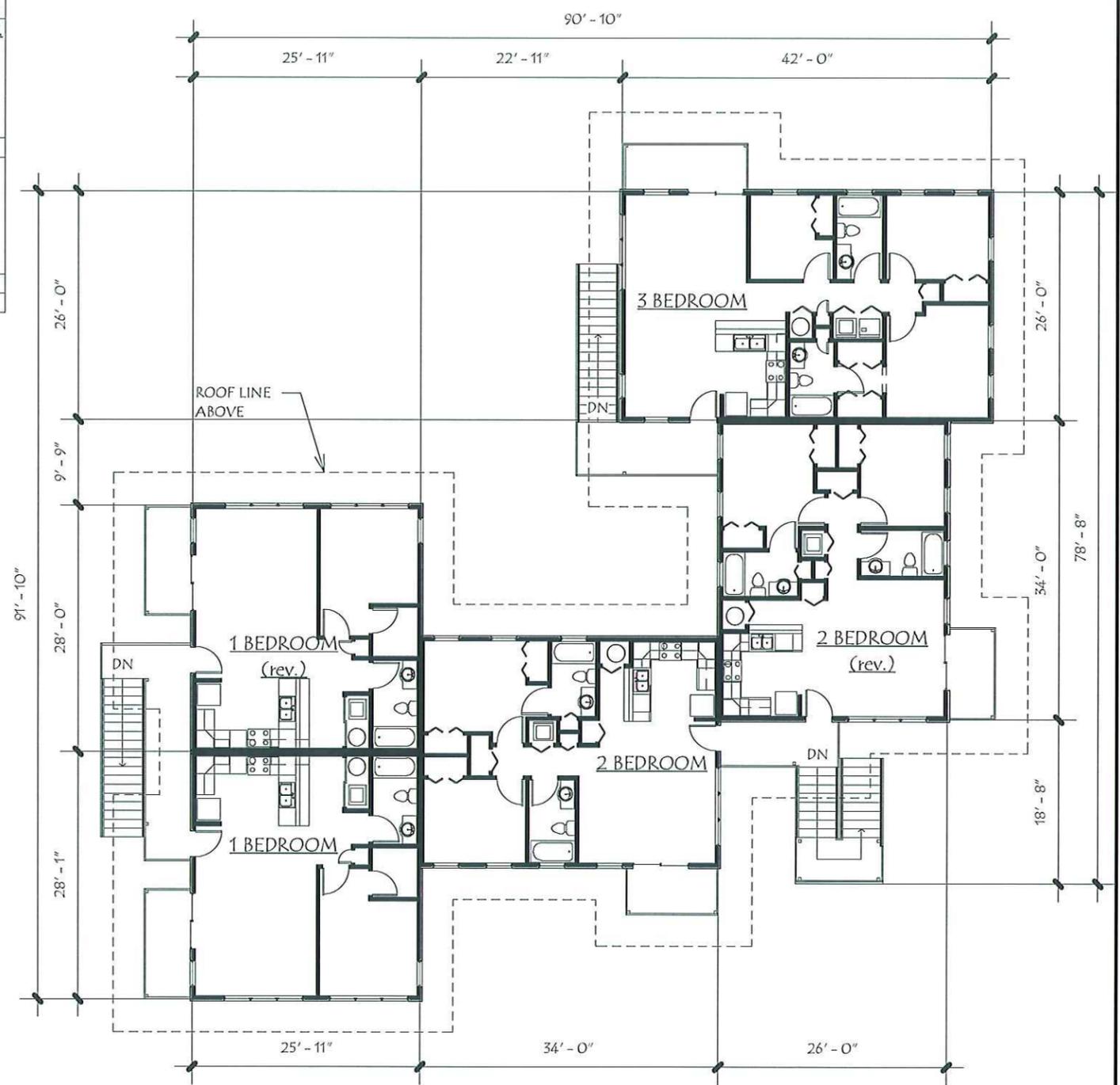
3 ROOF PLAN

0' 7.5' 15' 30' 45'



2 EXTERIOR ELEVATIONS

0' 2' 4' 8' 12'



1 BUILDING 'A' PLAN

0' 4' 8' 16' 24'

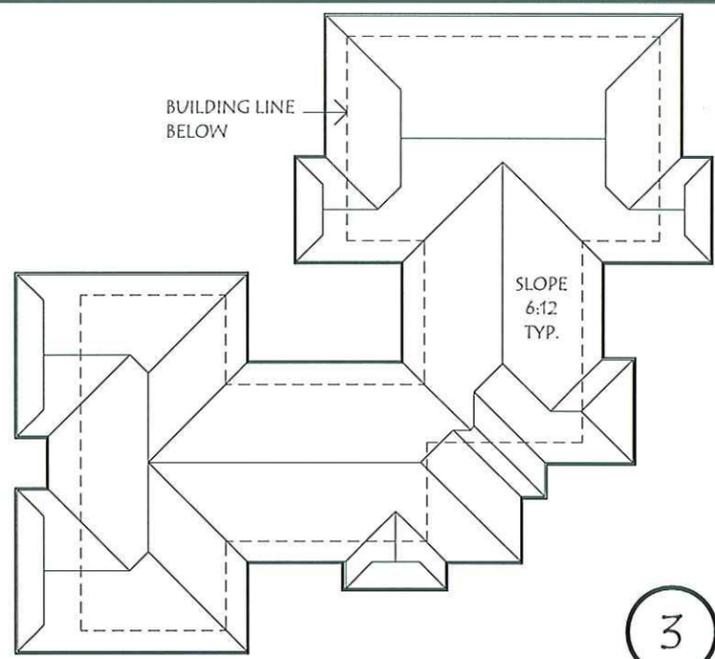
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KA ONO ULU - PHASE 6
 Kihei, Maui, Hawaii

BUILDING TYPE 'A'

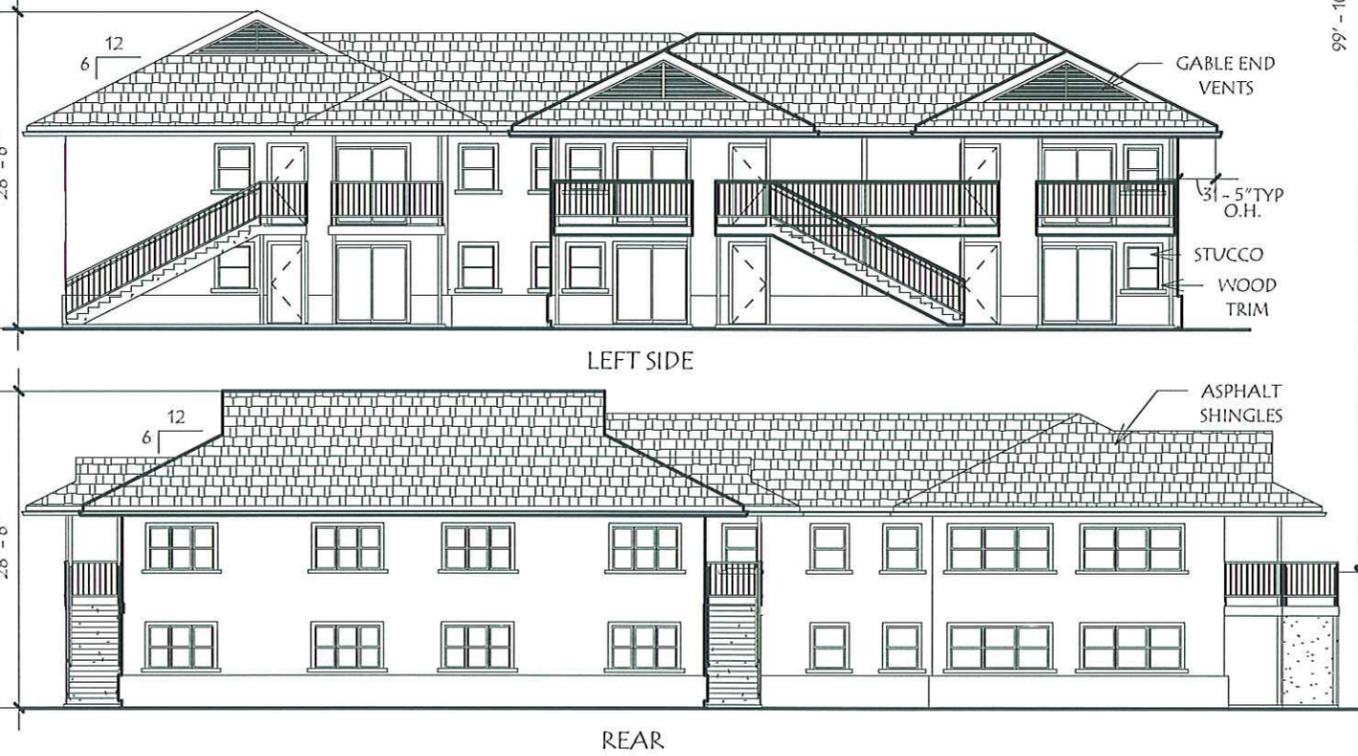
11/27/07
 A5
 Sheet 6 of 11



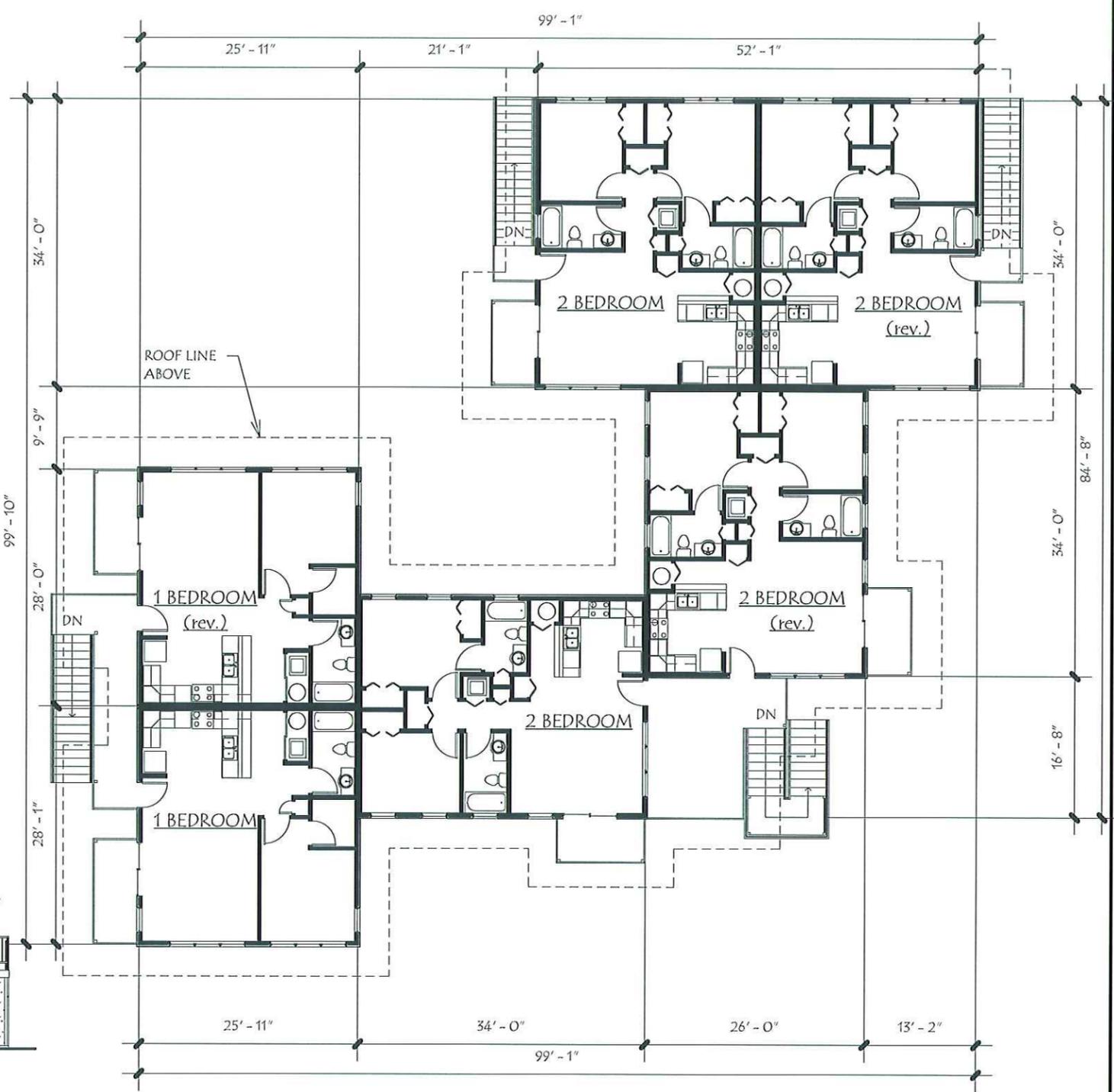
APPROX. SQ. FTG.-BUILDING TYPE 'B'

FLOOR	LIVING	LANAI	TOTAL SQ. FT.
GROUND FLOOR			
1 BEDROOM	672	62.5	
1 BEDROOM (rev.)	672	62.5	
2 BEDROOM (x2)	1768	105	
2 BEDROOM (rev.)(x2)	1768	105	
TOTAL GROUND FLOOR	4880.0	335.0	5215.0
SECOND FLOOR			
1 BEDROOM	672	62.5	
1 BEDROOM (rev.)	672	62.5	
2 BEDROOM (x2)	1768	105	
2 BEDROOM (rev.)(x2)	1768	105	
TOTAL SECOND FLOOR	4880.0	335.0	5215.0
TOTAL SQ.FTG. BOTH FLOORS			10430.0

3 ROOF PLAN
0' 7.5' 15' 30' 45'



2 EXTERIOR ELEVATIONS
0' 2' 4' 8' 12'



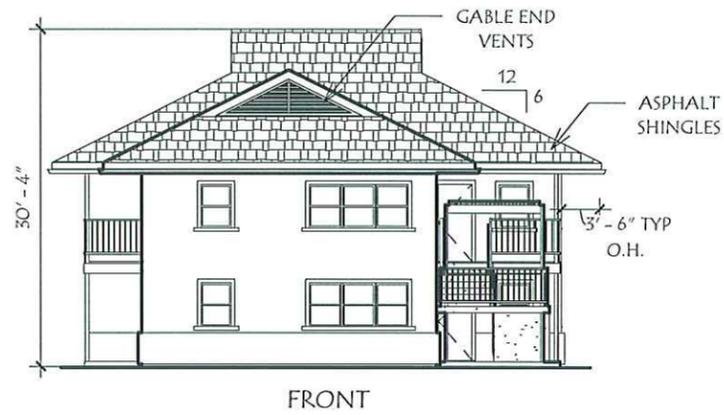
1 BUILDING 'B' PLAN
0' 4' 8' 16' 24'

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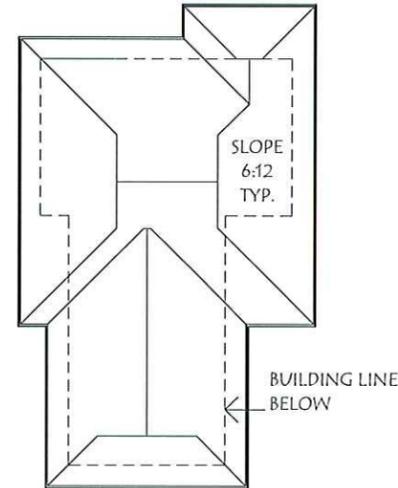
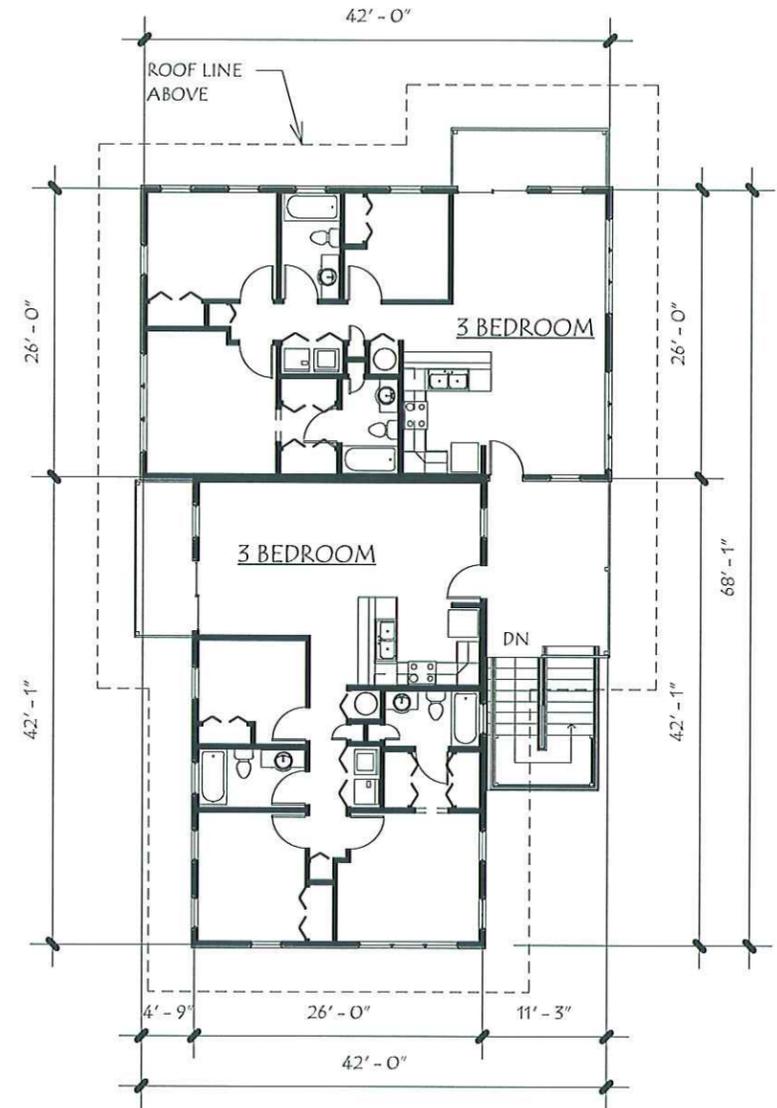
KA ONO ULU - PHASE 6
Kihei, Maui, Hawaii

BUILDING TYPE 'B'

11/27/07
A6
Sheet 7 of 11



APPROX. SQ. FTG.-BUILDING TYPE 'C'			
GROUND FLOOR	LIVING	LANAI	TOTAL SQ.FT.
3 BEDROOM	1092	72.5	
3 BEDROOM	1092	72.5	
TOTAL GROUND FLOOR	2184.0	145.0	2329.0
SECOND FLOOR			
3 BEDROOM	1092	72.5	
3 BEDROOM	1092	72.5	
TOTAL SECOND FLOOR	2184.0	145.0	2329.0
TOTAL SQ.FTG. BOTH FLOORS			4658.0

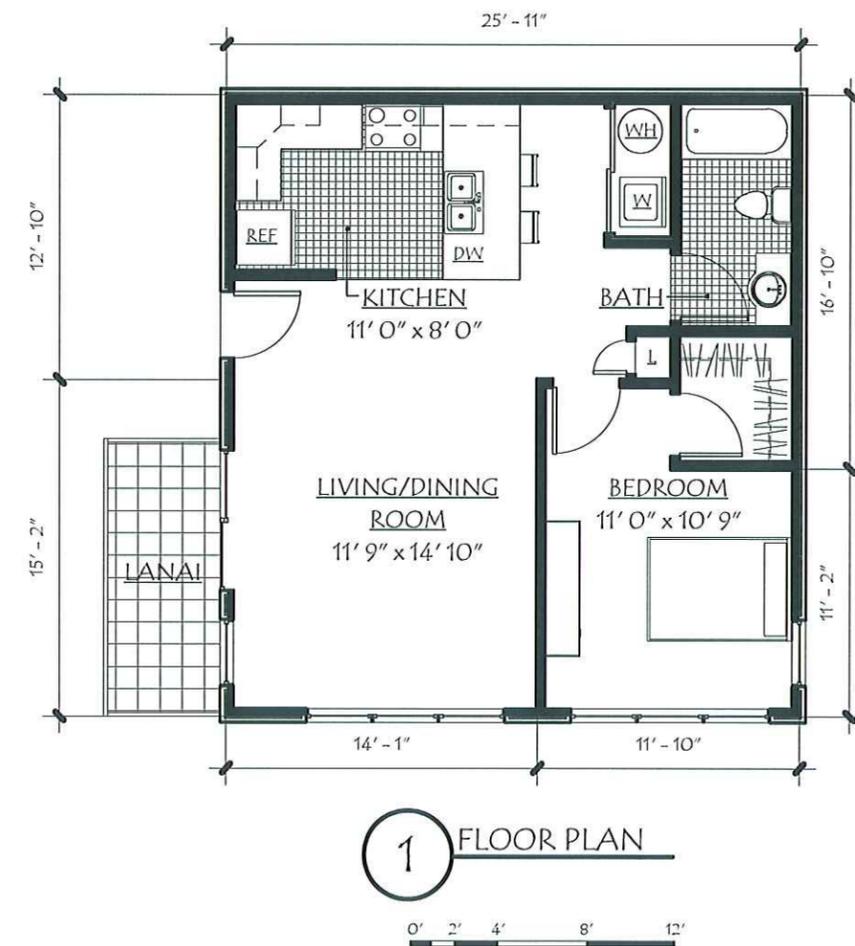


3 EXTERIOR ELEVATIONS
0' 2' 4' 8' 12'

2 ROOF PLAN
0' 7.5' 15' 30' 45'

1 BUILDING 'C' PLAN
0' 4' 8' 16' 24'

APPROX. UNIT SQUARE FOOTAGE			
GROUND FLOOR	LIVING	LANAI	TOTAL SQ. FT.
1 BEDROOM	672	62.5	734.5



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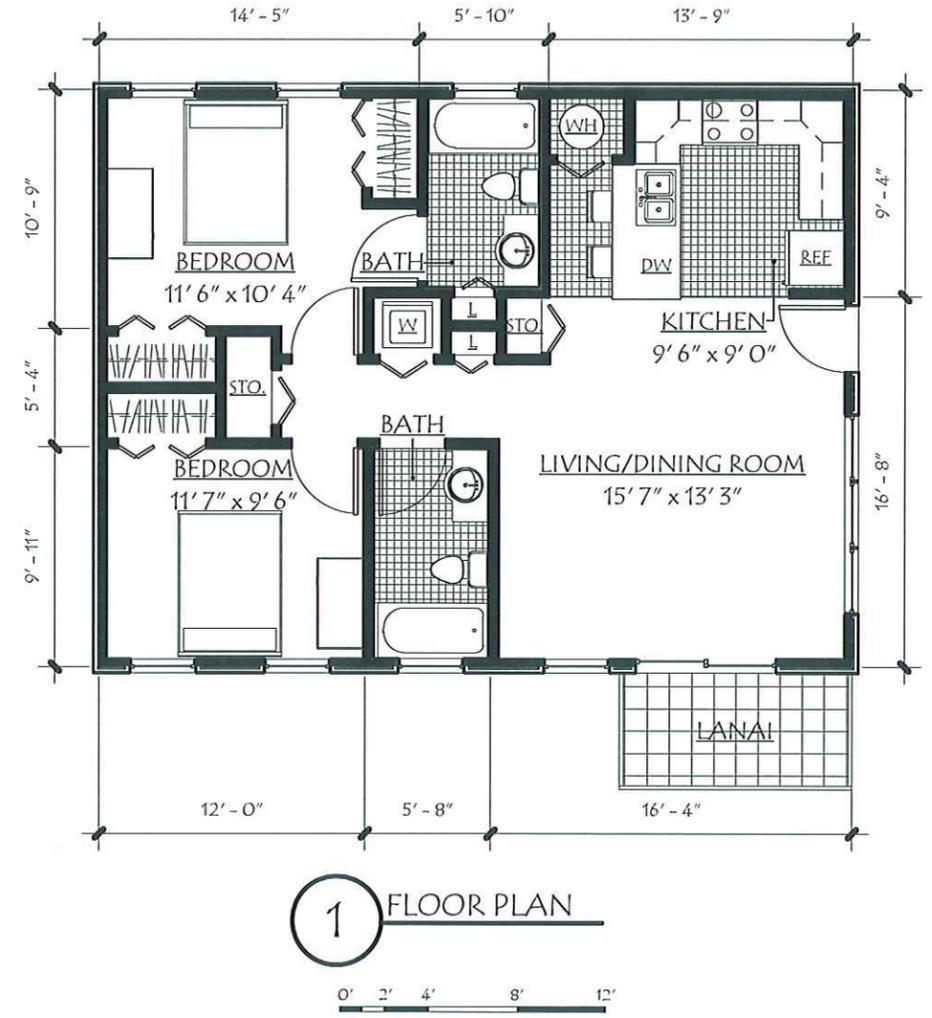
KA ONO ULU- PHASE 6
Kihei, Maui, Hawaii

TYPICAL 1 BEDROOM UNIT

11/27/07
A8
Sheet 9 of 11

APPROX. UNIT SQUARE FOOTAGE

GROUND FLOOR	LIVING	LANAI	TOTAL SQ. FT.
2 BEDROOM	884	52.5	936.5



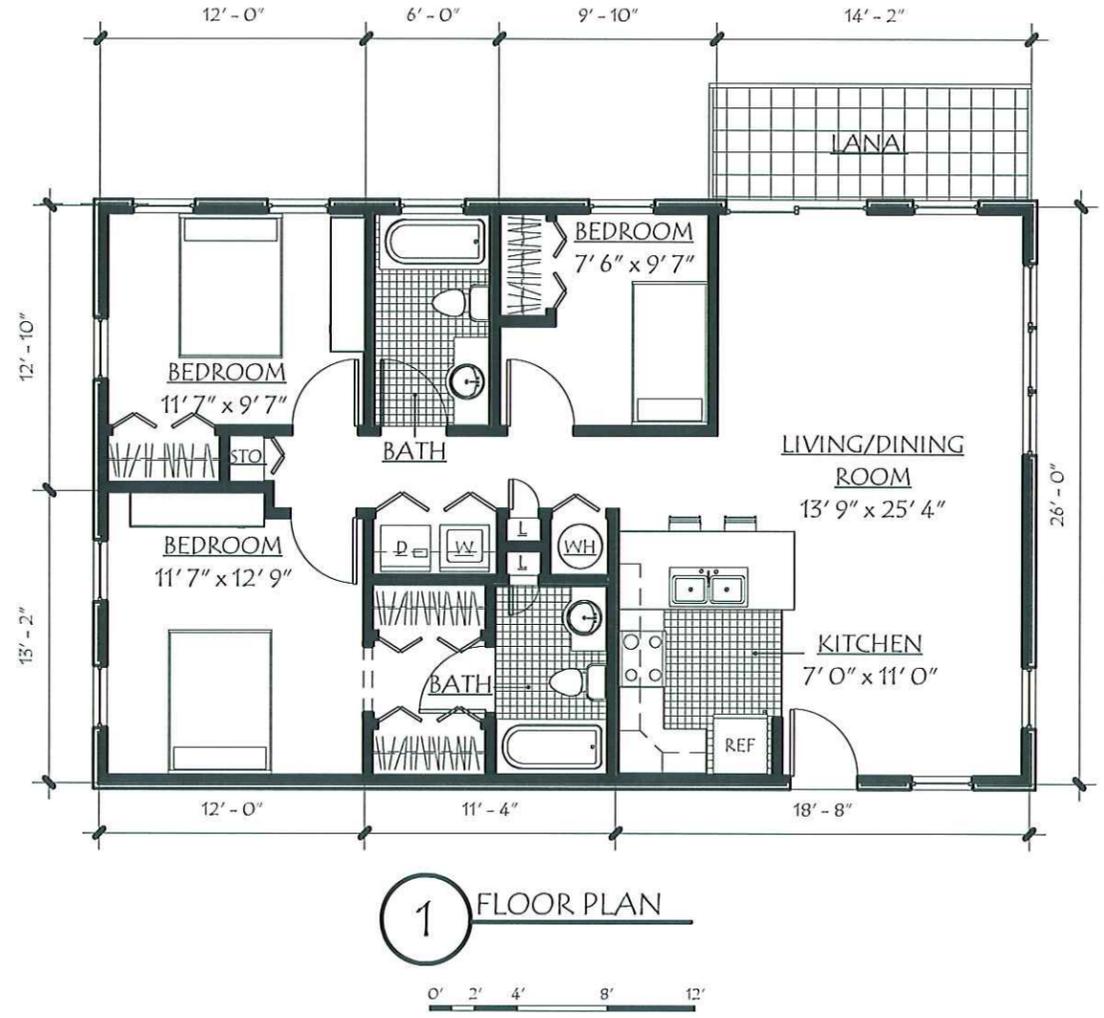
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KA ONO ULU- PHASE 6
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TYPICAL 2 BEDROOM UNIT

11/27/07
 A9
 Sheet 10 of 11

APPROX. UNIT SQUARE FOOTAGE			
GROUND FLOOR	LIVING	LANAI	TOTAL SQ.FT.
3 BEDROOM	1092	72.5	1164.5



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KA ONO ULU- PHASE 6
Kihei, Maui, Hawaii

TYPICAL 3 BEDROOM UNIT

11/27/07
A10
Sheet 11 of 11



APPENDIX I

EARLY CONSULTATION LETTERS AND RESPONSES

LINDA LINGLE
GOVERNOR OF HAWAII



CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

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

November 15, 2007

In reply, please refer to:

EPO-07-199

RECEIVED
NOV 20 2007

CE & PARTNERS
Landscape Architecture & Planning

C. Brett

06/010

Mr. Christopher L. Hart, ASLA
115 North Market Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Hart:

SUBJECT: Pre-Assessment Consultation for the Proposed Kaonoulu Phase VI Multi-Family Residential Development
Kenolio Road, Kihei, Maui, Hawaii
TMK: (1) (2) 3-9-001: 157 and 158

Thank you for allowing us to review and comment on the subject application. The application was routed to the various branches of the Environmental Health Administration. We have the following Clean Water Branch and General comments.

Clean Water Branch

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at

<http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf>.

1. Any project and its potential impacts to State waters must meet the following criteria:
 - a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.
 - b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.
 - c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

Mr. Hart
November 15, 2007
Page 2

2. Please call the Army Corps of Engineers at (808) 438-9258 to see if this project requires a Department of the Army (DA) permit. Permits may be required for work performed in, over, and under navigable waters of the United States. Projects requiring a DA permit also require a Section 401 Water Quality Certification (WQC) from our office.
3. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:
 - a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.
 - b. Hydrotesting water.
 - c. Construction dewatering effluent.

You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at:
<http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html>.

4. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of \$25,000 per day per violation.

If you have any questions, please visit our website at
<http://www.hawaii.gov/health/environmental/water/cleanwater/index.html>, or contact the Engineering Section, CWB, at 586-4309.

Mr. Hart
November 15, 2007
Page 3

General

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

If there are any questions about these comments please contact Jiakai Liu with the Environmental Planning Office at 586-4346.

Sincerely,



KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CWB
EH-Maui



February 5, 2008

Mr. Kelvin H. Sunada, Manager
Environmental Planning Office
State Department of Health
P.O. Box 3378
Honolulu, HI 96801

Dear: Mr. Sunada,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated November 15, 2007, and responses to the Department of Health Clean Water Branch and general comments, are as follows:

Clean Water Branch

1. The proposed project site is not located adjacent to any State waters and therefore is not expected to impact State waters. The applicant will comply with the applicable Hawaii Administrative Rules (HAR) referenced in your letter as follows;

- Antidegradation policy (HAR, Section 11-54-1.1);
- Designated uses (HAR, Section 11-54-3) as determined by the classification of the receiving State waters; and
- Water Quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. The ARMY Corps of Engineers was contacted on January 23, 2008. As a result of that conversation, a letter was sent on February 5, 2008 requesting determination if this project requires a Department of ARMY (DA) Permit.

Mr. Kelvin Sunada, Manager
Environmental Planning Office
DOH Early Consultation Letter
February 5, 2008
Page 2 of 2

3. The applicant will obtain a National Pollution Discharge Elimination System (NPDES) permit, when applicable for the following types of discharge.

- a. Storm water associated with construction activities that result in the disturbance of equal to or greater than one (1) acre of total land area.
- b. Hydrotesting water.
- c. Construction dewatering effluent.

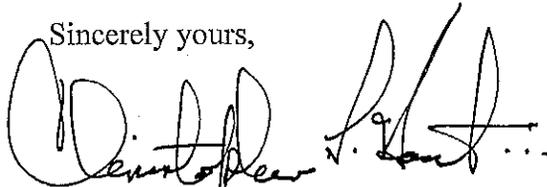
4. The applicant will comply with water quality requirements contained in HAR, Chapter 11-54, and or permitting requirements, specified in HAR, Chapter 11-55.

General

We have also reviewed the Standard Comments and will comply, as applicable to the proposed project.

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Christopher V. Hart". The signature is stylized and written over a faint, illegible printed name.

Christopher V. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

LINDA LINGLE
GOVERNOR
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879
HONOLULU, HAWAII 96805

November 16, 2007

MICAH A. KANE
CHAIRMAN
HAWAIIAN HOMES COMMISSION

BEN HENDERSON
DEPUTY TO THE CHAIRMAN

KAULANA H. PARK
EXECUTIVE ASSISTANT

RECEIVED
NOV 20 2007

Landscapes Architecture & Planning
cc: Brett 051184

Mr. Christopher L. Hart, ASLA
Chris Hart & Partners Inc.
115 N. Market Street
Wailuku, Hawaii 96793-1706

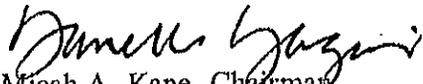
Attention: Mr. Brett Davis

Dear Mr. Hart:

Thank you for the opportunity to participate in the early consultation phase for the proposed Kaohoulu Phase IV Multi-Family Residential Development on Kenolio Road in Kihei, Maui. The Department of Hawaiian Home Lands has no comments.

Should you have any questions, please call the Planning Office at (808) 586-3836.

Aloha and mahalo,

for 
Micah A. Kane, Chairman
Hawaiian Homes Commission



February 5, 2008

Mr. Micah A. Kane, Chairman
Hawaiian Homes Commission
Department of Hawaii Homelands
P.O. Box 1879
Honolulu, HI 96805

Dear: Mr. Kane,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your
letter dated November 16, 2007 indicating no comment.

Thank you for your consideration of this application. Should you have any
questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File



POLICE DEPARTMENT
COUNTY OF MAUI



CHARMAINE TAVARES
MAYOR

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

GARY A. YABUTA
DEPUTY CHIEF OF POLICE

OUR REFERENCE
↑
YOUR REFERENCE

October 31, 2007

RECEIVED
NOV 15 2007

Chris Hart & Partners
Landscape Architecture & Planning

CS Hart 01/10

Mr. Christopher L. Hart, ASLA
President
Chris Hart & Partners, Inc.
1955 Main Street, Suite 200
Wailuku, HI 96793-1706

Dear Mr. Hart:

SUBJECT: Early Consultation Letter Proposed Kaonoulu Phase VI Multi-Family Residential Development Kenolio Road, Kihei TMK (2) 3-9-01:157

Thank you for your letter of October 22, 2007, requesting comments on the above subject.

We have reviewed the information submitted for this project and would like to defer any comments and/or recommendations until the Special Management Area (SMA) Permit is submitted.

Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Wayne Ribao
for: Thomas M. Phillips
Chief of Police

c: Jeffrey Hunt, Maui County Planning Department

COPY

TO : THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI
VIA : CHANNELS
FROM : BRAD HICKLE, POLICE OFFICER III, DISTRICT VI KIHAI
SUBJECT : EARLY CONSULTATION REQUEST/ KAONOULU PHASE VI,
MULTI-FAMILY RESIDENTIAL DEVELOPMENT LOCATED
AT KENOLIO ROAD, KIHAI, MAUI @ TMK (2) 3-9-01:157, 158

CONCUR:

AC [Signature] 10/29/07

APPLICANT INFORMATION:

The applicant, Betsill Brothers Construction, Inc. is proposing the development of a multi-family residential project consisting of 166-units in Kihei.

The applicant is requesting Early Consultation for the project which will be developed upon two separate parcels of land near the intersection of Kenolio Road and Kaonoulu Road. The project will be bordered on the east by Piilani Highway.

REVIEW AND COMMENTS:

I am familiar with the project location and I do have concerns regarding the proposed project location and the close proximity it will have with the future up-country highway which will connect to Kaonoulu Road at Piilani Highway.

Based upon the limited information provided in this early consultation request I would like to defer my comments and/or recommendations at this time. I would however appreciate the opportunity to comment on a future Special Management Area (SMA) Permit for this project which I am sure will be more in depth.

I recommend this request be returned to Mr. Christopher L. HART of Chris Hart & Partners at this time. Again thank you for your request.

Respectfully Submitted,

Officer Brad Hickle

10/26/07

07:15 hours

[Signature]

Noted; @ 10/26/07
Koreos Capt. - [Signature]
10/26/07



February 5, 2008

Chief Thomas Philips
Maui Police Department
55 Mahalani Street
Wailuku, HI 96793

Dear: Chief Philips,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated October 31, 2007 indicating no comment. The Police Department will receive a copy of the Special Management Area (SMA) Permit when it is deemed complete and ready by the Maui County Planning Department.

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File



RECEIVED
NOV - 7 2007

CHRIS HART & PARTNERS
Landscape Architecture & Planning
CC: Beth ole/010

November 5, 2007

Mr. Christopher Hart, ASLA
President
Chris Hart & Partners, Inc.
115 N. Market Street
Wailuku, Hawaii 96793

Dear Mr. Hart,

Subject: Early Consultation Request for Proposed
Kaonoulu Phase VI Multi-Family Residential Development
Keonolio Road
Kihei, Maui, Hawaii
TMK: (2) 3-9-01:157 and 158

Thank you for allowing us to comment on the early consultation phase of the proposed subject project, which was received on October 23, 2007.

In reviewing our records and the information received, Maui Electric Company (MECO) has no objection to the project at this time. However, in addition to an electrical line extension, upgrades to our substation, transmission, and/or distribution system may be necessary to accommodate this project's anticipated load demand. We highly encourage the developer's electrical consultant to submit its electrical demand requirements and project time schedule as soon as practical so that service can be provided on a timely basis.

In addition, may we suggest that the developer and/or their consultant make contact with Sage Kiyonaga of our Demand Side Management (DSM) group at 872-3283 to review potential energy conservation and efficiency opportunities for their project.

Should you have any other questions or concerns, please call Kim Kawahara at 871-2345.

Sincerely,

Neal Shinyama
Manager, Engineering

NS/kk:lh
cc: Sage Kiyonaga - MECO DSM



February 5, 2008

Mr. Neal Shinyama, Manager
Maui Electric Company (MECO)
210 West Kamehameha Avenue
P.O. Box 398
Kahului, Maui, HI 96733

Dear: Mr. Shinyama,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated November 5, 2007 indicating MECO has no objection to the project.

The applicant will coordinate with MECO to verify the projects electrical demand requirements and the desired service location.

Additionally we will coordinate our project with your Demand Side Management (DSM) group to review potential energy conservation and efficiency opportunities.

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

LINDA LINGLE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

BRENNON T. MORIOKA
ACTING DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2714

December 14, 2007

Mr. Christopher L. Hart, ASLA
President
Chris Hart & Partners, Inc.
115 N. Market Street
Wailuku, Hawaii 96793-1706

RECEIVED
DEC 19 2007
CHRIS HART & PARTNERS
(Landscape Architecture & Planning)
CC: BrH 061010

Dear Mr. Hart:

Subject: Kaonoulu Phase VI Multi-Family Residential Development
Early Consultation

Thank you for requesting our review of the subject project. This letter is provided as a follow up to earlier verbal comments provided by DOT staff. Our comments are as follows:

1. The project will impact traffic on our highways by its contribution of vehicle activity onto the local streets and the collective traffic's access/use of State highways infrastructure.
2. The project's access to Piilani Highway should be identified and described.
3. A traffic assessment or traffic impact analysis report should be prepared by the developer/landowner and submitted as part of the project's environmental assessment. The traffic report should cover both project and regional impacts and the mitigation measures the project will provide, including any developer/landowner projects or financial contributions toward these mitigation measures.
4. We will defer further comment on the project until our review of the completed environmental assessment. We request that at least four copies of the environmental assessment report be provided to permit simultaneous review by the appropriate DOT staff.

We appreciate the courtesy of this early consultation and for the opportunity to provide comments.

Very truly yours,

Francis Paul Keeno

for BRENNON T. MORIOKA, PH.D., P.E.
Acting Director of Transportation

c: Jeffrey Hunt, Maui Department of Planning



February 5, 2008

Mr. Brennon T. Morioka, PH.D., P.E.
Acting Director of Transportation
Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813

Dear: Mr. Morioka,

RE: Early Consultation request for the proposed Kaonoulu Phase VI, Kihei,
Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your
letter dated December 14, 2007 and responses to comments, are as follows:

1. We acknowledge that the project will impact traffic on Piilani Highway.
2. The proposed multi-family residential development is located on Kenolio Road,
which intersects with Kaonoulu Street to provide access to Piilani Highway.
3. A Traffic Impact Assessment Report will be included in the Draft
Environmental Assessment. The report will cover both project and regional
impacts.
4. Per your request, four (4) copies of the project Environmental Assessment will
be provided to the Department of Transportation.

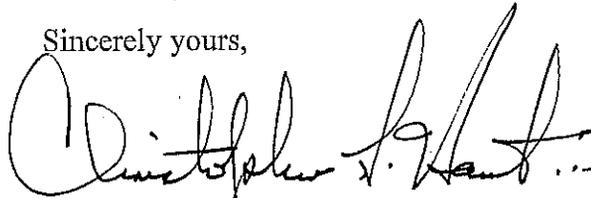
LANDSCAPE ARCHITECTURE
CITY AND REGIONAL PLANNING

115 N. MARKET STREET • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE 808-242-1955 • FAX: 808-242-1956

Mr. Brennon T. Morioka, PH.D., P.E.
Kaonoulu Phase VI
Early Consultation Response
February 5, 2008
Page 2 of 2

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

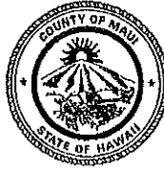
Sincerely yours,

A handwritten signature in black ink, appearing to read "Christopher L. Hart". The signature is fluid and cursive, with a large initial "C" and a long horizontal stroke at the end.

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

CHARMAINE TAVARES
MAYOR



CARL M. KAUPALOLO
CHIEF

NEAL A. BAL
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY
FIRE PREVENTION BUREAU

780 ALUA STREET
WAILUKU, HAWAII 96793
(808) 244-9161
FAX (808) 244-1363

October 25, 2007

RECEIVED
OCT 29 2007

CHRIS HART & PARTNERS
Landscape Architecture & Planning
cc: Brett 06/010

Mr. Chris Hart
Chris Hart & Partners
115 N. Market Street
Wailuku, Hawaii 96793

**Subject: Early Consultation Request for Kaonoulu Phase VI Multi-Family Residential
Development, Kenolio Road, Kihei HI TMK (2)3-9-001:157**

Dear Mr. Hart,

Thank you for the opportunity to review the subject project during this early consultation phase. At this time, we have no specific concerns to address. A detailed review will be conducted by our office during the building permit application process.

Please feel free to contact Lt. Scott English at 244-9161 if there are any questions or concerns regarding this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Valeriano F. Martin".

Valeriano F. Martin
Captain
Fire Prevention Bureau



February 19, 2008

Captain Valeriano F. Martin
Fire Prevention Bureau
780 Alua Street
Wailuku, HI 96793

Dear: Captain Martin,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your
letter dated October 25, 2007 indicating no comment.

Thank you for your consideration of this application. Should you have any
questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

November 21, 2007

RECEIVED
NOV 26 2007

CHRIS HART & PARTNERS
Landscape Architecture & Planning

CC: Brett
Oylo

Chris Hart & Partners Inc.
115 N. Market Street
Wailuku, Hawaii 96793-1706

Attention: Mr. Brett Davis

Gentlemen:

Subject: Early Consultation Letter for Proposed Kaonoulu Phase VI Multi-Family Residential Development Kenolio Road, Kihei, Maui, Tax Map Key: (2) 3-9-1:157, 158

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Commission on Water Resource Management, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Morris M. Atta".

Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA B. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 24, 2007

MEMORANDUM

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division -

FROM:

for Russell Y. Tsuji *Charles*

SUBJECT:

Pre-Consultation for Proposed Kaonoulu Phase VI Multi-Family Residential Development

LOCATION: Kihei, Maui, TMK: (2) 3-9-1:157

APPLICANT: Chris Hart on behalf of Betsill Brothers Construction, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 20, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

Charles

Date:

11/2/07

DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

2007 NOV -5 P 10:19

RECEIVED
LAND DIVISION

07 OCT 24 PM 12:16 ENGINEERING

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/RYT

Ref.: PreConKaonouluPhVIKihei
Maui.374

COMMENTS

- () We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zones ____.
- (X) Please take note that based on the map that you provided, it appears that the project site according to the Flood Insurance Rate Map (FIRM), is located in Zones B, C, A and A4. The National Flood Insurance Program does not have any regulations for developments within Zones B and C, however, it does regulate developments within Zones A and A4 as indicated in bold letters below.
- () Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ____.
- (X) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

- () Mr. Robert Sumimoto at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
- () Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
- (X) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
- () Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.
- () The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.
- () The applicant should provide the water demands and calculations to the Engineering Division so they can be included in the State Water Projects Plan Update.
- () Additional Comments: _____
- () Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed: _____

ERIC T. HIRANO, CHIEF ENGINEER

Date: _____

11/2/07

LINDA LINGLE
GOVERNOR OF HAWAII



LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED

07 OCT 24 10:39



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

COMMISSION ON WATER
RESOURCE MANAGEMENT

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 24, 2007

MEMORANDUM

From:

TO:

DLNR Agencies:

- Div. of Aquatic Resources
- Div. of Boating & Ocean Recreation
- Engineering Division
- Div. of Forestry & Wildlife
- Div. of State Parks
- Commission on Water Resource Management
- Office of Conservation & Coastal Lands
- Land Division -

To:

FROM:

for Russell Y. Tsuji *Chairman*

SUBJECT:

Pre-Consultation for Proposed Kaonoulu Phase VI Multi-Family Residential Development

LOCATION: Kihei, Maui, TMK: (2) 3-9-1:157

APPLICANT: Chris Hart on behalf of Betsill Brothers Construction, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 20, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

- We have no objections.
- We have no comments.
- Comments are attached.

Signed:

W. Rosefamily

Date:

11/6/07

LINDA LINGLE
GOVERNOR OF HAWAII



RECEIVED
LAND DIVISION

2007 NOV -9 P 1:44

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96800

LAURA H. THIELEN
CHAIRPERSON
MEREDITH J. CHING
JAMES A. FRAZIER
NEAL S. FUJIWARA
CHIYOME I. FUKINO, M.D.
DONNA FAY K. KIYOSAKI, P.E.
LAWRENCE H. MIKE, M.D., J.D.
KEN C. KAWAHARA, P.E.
DEPUTY DIRECTOR

November 7, 2007

REF:

TO: Morris Atta, Acting Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management **K**

SUBJECT: Kaonoulu Phase VI MF Residences

FILE NO.: TMK: (2) 3-9-001:157

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at <http://www.hawaii.gov/dlnr/cwrm>.

Our comments related to water resources are checked off below.

- 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.
- 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- 3. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM: Additional information and forms are available at www.hawaii.gov/dlnr/cwrm/forms.htm.

- 4. The proposed water supply source for the project is located in a designated ground-water management area, and a Water Use Permit is required prior to use of ground water.
- 5. A Well Construction Permit(s) is (are) required before the commencement of any well construction work.
- 6. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

DRF-IA 03/02/2006

- 7. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.
- 8. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.
- 9. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.
- 10. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.
- 11. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.
- 12. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.
- 13. We recommend that the report identify feasible alternative non-potable water resources, including reclaimed wastewater.

OTHER:

The primary water source for this project is the Iao Ground Water Management Area under the State Commission on Water Resource Management (CWRM). New uses initiated after July 21, 2003 will be addressed under new applications by the Maui Department of Water Supply. Limited pumpage from Iao is augmented from other sources, but inadequate supplies could result in restrictions of use within the service area. New uses within the Central Maui Service Area not relying on Iao sources may also be affected if Iao sources are restricted.

If there are any questions, please contact Charley Ice at 587-0251.

CI:ss



February 26, 2008

Mr. Morris M. Atta
Department of Land and Natural Resources
P.O. Box 621
Honolulu, HI 96809

Dear: Mr. Atta,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant Piilani Makai, Inc., we acknowledge receipt of your letter dated November 14, 2007 and responses to the Engineering Division and Commission on Water Resource Management comments, are as follows:

Engineering Division

The applicant is aware that the project site is located in Zones B, C, A and A4 according to the Flood Insurance Rate Map (FIRM) and that development within Zones A and A4 is regulated.

Additionally the applicant agrees to comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken.

Commission on Water Resource Management

The applicant acknowledges the recommendation to coordinate with the county to incorporate this project into the county's Water Use and Development Plan.

Additionally the applicant is aware that new users initiated after July 21, 2003 will be addressed under new applications by the Maui Department of Water Supply.

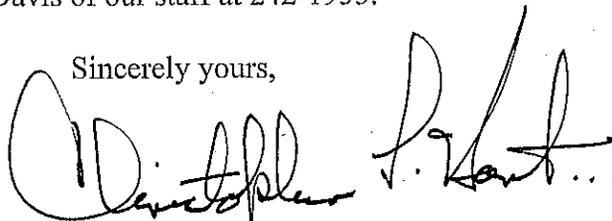
LANDSCAPE ARCHITECTURE
CITY AND REGIONAL PLANNING

115 N. MARKET STREET • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE 808-242-1955 • FAX: 808-242-1956

Mr. Morris M. Atta
Department of Land and Natural Resources
Early Consultation Response Letter
February 26, 2008
Page 2 of 2

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Christopher L. Hart". The signature is written in a cursive style with a large initial "C" and a long horizontal stroke at the end.

Christopher L. Hart, ASLA
Landscape Architect - Planner

CC. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project Folder



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

November 8, 2007

Mr. Chris L. Hart, President
Chris Hart & Partners, Inc.
115 North Main Street
Wailuku, Hawaii 96793

Dear Mr. Hart:

Subject: Early Consultation for the Proposed Kaonoulu Phase VI
Multi-Family Residential Development, Kenolio Road
Kihei, Maui TMK: (2) 3-9-01:157,158

The Department of Education (DOE) has reviewed your request for early consultation on a proposed 166-unit single-family residential subdivision called the Kaonoulu Phase VI Multi-Family Residential Development.

The 2007 Legislature passed a bill establishing school impact fees. The bill became Act 245 and is in the process of being implemented. We believe it is likely the project will fall within an impact district under this new law. The project may be required to pay an impact fee, depending on when the impact fees are implemented, and when the project proponent requests building permits. We currently do not know the amount of the fee per residential unit to be charged in that district.

We request more detailed information, preferably prior to the publication of the Environmental Assessment (EA), on the size of each unit and the general price range for various housing types to determine the student impact of the project.

Thank you for the opportunity to offer our early comments. If you have any questions, please call Heidi Meeker of our Facilities Development Branch at (808) 733-4862.

Very truly yours,

A handwritten signature in cursive script that reads "Patricia Hamamoto".

Patricia Hamamoto
Superintendent

PH:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Duane Kashiwai, Public Works Administrator, FDB
Bruce Anderson, CAS, Baldwin/King Kekaulike/Maui High Complex Areas

RECEIVED
NOV 13 2007
CHRIS HART & PARTNERS
115 North Main Street Wailuku, HI 96793
cc: Brett 06/010



March 12, 2008

Mrs. Patricia Hamamoto, Superintendent
Department of Education
P.O. Box 2360
Honolulu, HI 96804

Dear: Mrs. Hamamoto,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated November 8, 2007.

Your letter indicates that the Department of Education (DOE) believes that the proposed Kaonoulu Phase VI Multi-Family Residential Development is subject to an impact fee required by newly passed legislation, Act 245. Additionally your letter indicates that the DOE does not know the amount of the fee per residential unit. If Act 245 warrants an impact fee, the developer will enter into an agreement with the department prior to final subdivision approval.

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

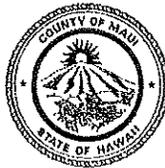
LANDSCAPE ARCHITECTURE
CITY AND REGIONAL PLANNING

115 N. MARKET STREET • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE 808-242-1955 • FAX: 808-242-1956

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

COLLEEN M. SUYAMA
Deputy Director



RECEIVED FEB 07 2008

COUNTY OF MAUI
DEPARTMENT OF PLANNING

January 31, 2008

Mr. Christopher L. Hart, ASLA
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Hart:

SUBJECT: PRE-CONSULTATION COMMENTS IN PREPARATION OF A DRAFT ENVIRONMENTAL ASSESSMENT (DEA) FOR THE PROPOSED KAONOULU PHASE VI MULTI FAMILY RESIDENTIAL DEVELOPMENT KENOLIO ROAD ON APPROXIMATELY 8.2 ACRES AT KIHEI, ISLAND OF MAUI, HAWAII AT TMK: (2) 3-9-001:157 AND 158 (EAC 2007/0038)

The Maui Department of Planning (Department) is in receipt of the above-referenced document for the proposed Kaonoulu Phase VI Multi-Family Residential Development in Kihei. The Department understands the proposed action includes the following:

- Development of a multi-family residential project consisting of approximately 166 unit on approximately 8.2 acres in Kihei. The 166 unit project will include fifty six (56) 1-bedroom units, eighty four (84) 2- bedroom units and twenty-six (26) 3- bedroom units. Project infrastructure improvements will include paved roadways, concrete curbs, gutters, and sidewalks, onsite storm drainage system, sewer system, underground utilities, landscape planting, and offsite roadway improvements along Kenolio Road fronting the project site;
- The property is located at the intersection of Kaonoulu and Kenolio Roads at its northwestern corner and is bounded by Piilani Highway to the east; and
- The applicant will be submitting applications for a Community Plan Amendment and Change in Zoning upon completion of the EA process.

Mr. Christopher L. Hart, ASLA
January 31, 2008
Page 3

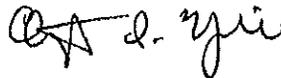
5. The County of Maui is currently updating the Maui County General Plan, developing a Maui Island Plan that will establish growth boundaries and updates of its Community Plans. The Department requests justification of the necessity for this project to proceed in advance of the General Plan update process. Your response should discuss the community benefits that this project will provide beyond what is required by County and State ordinances.

The Department recently issued the enclosed policy memorandum dated January 10, 2008, which indicates that the Department will not support any proposed development that involves a community plan amendment at this time. The memo also lists exceptions to this policy which may be considered.

In the future may we ask that you include the address of your company on any letters you send to the Department.

Thank you for the opportunity to comment. Should you require further clarification, please contact Current Planning Supervisor Ann Cua by e-mail at ann.cua@mauicounty.gov or at 270-7521.

Sincerely,



CLAYTON I. YOSHIDA, AICP
Planning Program Administrator

Attachment

CIY:ATC:bg

c: Colleen M. Suyama, Deputy Planning Director
John Summers, Planning Program Administrator
Ann T. Cua, Current Planning Supervisor
Project File
General File
K:\WP_DOCS\PLANNING\EAC\2007\0038_KaonouluPhaseV\Comments.wpd



March 12, 2008

Mr. Clayton Yoshida, Planning Program Administrator
Planning Department
250 South High Street
Wailuku, HI 96793

Attention: Ann Cua

Dear: Mr. Yoshida,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated January 31, 2008 and responses to the Planning Department comments are as follows;

1. We respectfully disagree with your department's determination to include the Open Zone as part of Parcel 157. A Zoning and Flood Confirmation Sheet was signed on January 18, 2007 verifying that the parcel has a Maui County Zoning designation of A-1 Apartment, only. (See: Enclosure)

Additionally, please note that the project site is located in Flood Zones, A, A4, B, and C. (See: Flood Map)

2. Thank you for acknowledging that the Draft Environmental Assessment (EA) Process is warranted. We believe that the only "trigger" action is the Community Plan Amendment.
3. We believe the proposed community plan amendment will be the trigger for Chapter 343, HRS, therefore we expect the Maui Planning Commission to be the final authority.
4. The Draft EA and consolidated Change in Zoning and Community Plan Amendment application will address the required topics and will include a detailed Traffic Impact Assessment Report (TIAR) that will determine project traffic impacts. Based upon the results of the TIAR, the applicant will look to

LANDSCAPE ARCHITECTURE
CITY AND REGIONAL PLANNING

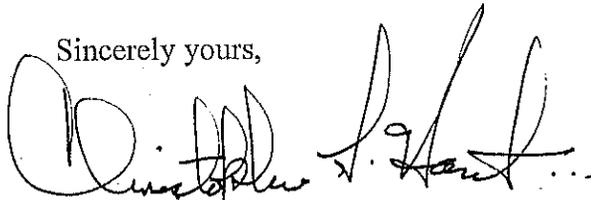
Mr. Clayton Yoshida, Planning Program Administrator
Maui Planning Department
Early Consultation Response Letter
Kaonoulu VI
March 12, 2008
Page 2 of 2

appropriate mitigation measures, which may include transportation Demand Management.

5. We believe that this project's requested Community Plan Amendment will be supportable by the department since it lies within the existing urban growth boundary. Further the Draft EA and consolidated application, we will identify the necessity for this project and the community benefits it has.

Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Christopher L. Hart". The signature is fluid and cursive, with a large initial "C" and "H".

Christopher L. Hart, ASLA
Landscape Architect - Planner

Enclosures,

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

COUNTY OF MAUI
DEPARTMENT OF PLANNING

ZONING AND FLOOD CONFIRMATION REQUEST FORM JAN 18 P2:55

APPLICANT: BRETT DAVIS PHONE NO. 808-242-1955
ADDRESS: 1955 MAIN STREET, SUITE 200 WAILUKU, HI 96793
PROJECT NAME: KA'ONO'ULU Estates Phase III
ADDRESS AND/OR LOCATION: KA'ONO'ULU Estates Phase III
TMK NUMBER(S): (2) 3-9-001:158

ZONING INFORMATION

STATE LAND USE URBAN COMMUNITY PLAN MF
COUNTY ZONING A-1 SPECIAL DISTRICT SMA
OTHER _____

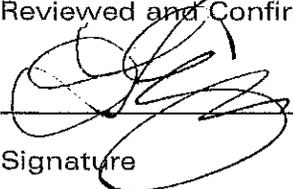
FLOOD INFORMATION

FLOOD HAZARD AREA* ZONE C
BASE FLOOD ELEVATION N/A mean sea level, 1929 National Geodetic Vertical Datum or for Flood Zone A0, FLOOD DEPTH N/A feet.

FLOODWAY [] Yes or [X] No
FLOOD DEVELOPMENT PERMIT IS REQUIRED [] Yes or [X] No
* For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.

FOR COUNTY USE ONLY

REMARKS/COMMENTS: _____
 Additional information required.
 Information submitted is correct.
 Correction has been made and initialed.

Reviewed and Confirmed by: _____
 _____
Signature Date

COUNTY OF MAUI
DEPARTMENT OF PLANNING

ZONING AND FLOOD CONFIRMATION REQUEST FORM

'07 JAN 18 P2:55

APPLICANT: BRETT DAVIS PHONE NO. 242-1955
ADDRESS: 1955 MAIN Street, Suite 200 WAFEGUWHI 96793
PROJECT NAME: KA'ONO'ULU Estates Phase III
ADDRESS AND/OR LOCATION: KA ono ulu Estates Phase III
TMK NUMBER(S): (2) 3-9-0018157

ZONING INFORMATION

STATE LAND USE URBAN COMMUNITY PLAN B
COUNTY ZONING R-1, A-1 SPECIAL DISTRICT SMA
OTHER _____

FLOOD INFORMATION

FLOOD HAZARD AREA* ZONE C
BASE FLOOD ELEVATION N/A mean sea level, 1929 National Geodetic Vertical Datum or for Flood Zone A0, FLOOD DEPTH N/A feet.

FLOODWAY [] Yes or [X] No

FLOOD DEVELOPMENT PERMIT IS REQUIRED [] Yes or [X] No

* For flood hazard area zones B or C; a flood development permit would be required if any work is done in any drainage facility or stream area that would reduce the capacity of the drainage facility, river, or stream, or adversely affect downstream property.

FOR COUNTY USE ONLY

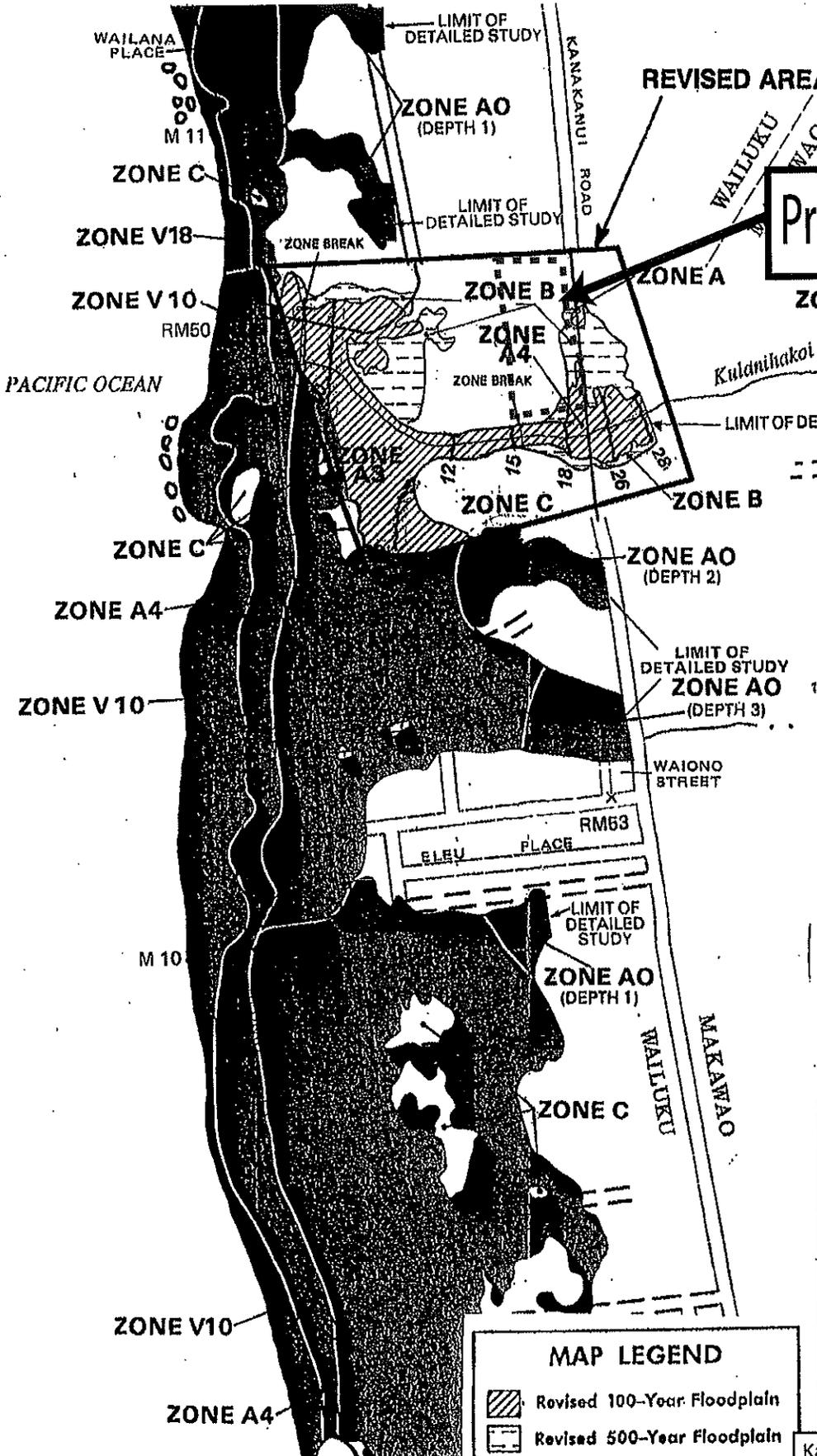
REMARKS/COMMENTS: _____

- Additional information required.
- Information submitted is correct.
- Correction has been made and initialed.

Reviewed and Confirmed by:

[Signature]
Signature

1/18/07
Date



Project Site



APPROXIMATE SCALE IN FEET
 1000 0 1000

NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

MAUI COUNTY, HAWAII

PANEL 285 OF 400
 REVISED TO REFLECT LOMR DATED MAY 08 2003

COMMUNITY-PANEL NUMBER
 150003 0265 C

MAP REVISED:
 SEPTEMBER 6, 1989

MAP LEGEND

- Revised 100-Year Floodplain
- Revised 500-Year Floodplain

Kaonoulu VI
 Figure No. 6
 September 2006
 Flood Insurance Rate Map
 (Not to Scale)

CHRIS HART & PARTNERS, INC.

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H.
DISTRICT HEALTH OFFICER

RECEIVED
NOV 13 2007

Chris Hart & Partners
Landscape Architecture & Planning
ce. Pratt 06/011

November 9, 2007

Mr. Christopher L. Hart, ASLA
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawai'i 96793

Dear Mr. Hart:

Subject: **Early Consultation for Proposed Kaonoulu Phase VI,
Multi-Family Residential Development Kenolio Road
TMK: (2) 3-9-01:157 & 158**

Thank you for the opportunity to participate in the early consultative process for the proposed Kaonoulu Phase VI, Multi-Family Residential Development Kenolio Road. The following comments are offered:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage is required for this project. The Clean Water Branch should be contacted at 808 586-4309.
2. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control". A noise permit may be required and should be obtained before the commencement of work.

HAR, Chapter 11-46 sets maximum allowable sound levels from stationary equipment such as compressors and HVAC equipment. The attenuation of noise from these sources may depend on the location and placement of these types of equipment. This should be taken into consideration during the planning, design, and construction of the building and installation of these types of equipment.

Mr. Christopher L. Hart
November 9, 2007
Page 2

It is strongly recommended that the Standard Comments found at the Department's website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Matsubayashi', enclosed within a large, loopy oval scribble.

Herbert S. Matsubayashi
District Environmental Health Program Chief



March 12, 2008

Mr. Herbert S. Matsubayashi
District Environmental Health Program Chief
Department of Health
Maui District Health Office
54 High Street
Wailuku, HI 96793

Dear Mr. Matsubayashi:

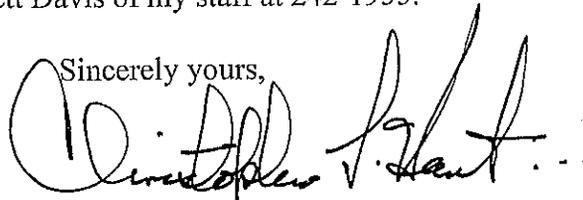
RE: Early consultation request for Kaonoulu Phase VI, Kihei, Maui, Hawaii;
TMK: (2) 3-9-01:157 & 158.

On behalf of the applicant, Piilani Makai, LLC thank you for your letter dated November 9, 2007 and response to the Maui District Health Office comments, as follows:

1. The applicant will obtain the required National Pollutant Discharge Elimination System (NPDES) permit prior to the time of construction.
2. The noise created during the construction phase of the project is not anticipated to exceed maximum allowable levels as set forth in (HAR), Chapter 11-46, "Community Noise Control". A noise permit will be obtained if necessary prior to the time of construction.

We have also reviewed the Standard Comments and will comply, as applicable to the proposed project.

Thank you for your consideration of this application. Should you have any questions, please contact Mr. Brett Davis of my staff at 242-1955.

Sincerely yours,

Christopher I. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

United States Department of Agriculture



Natural Resources Conservation Service
210 Iml Kala St. Ste 209
Wailuku, HI 96793
808-244-3100

RECEIVED
OCT 26 2007

CHRIS HART & PARTNERS
Landscape Architecture & Planning
CC: [signature] 06/010

October 24, 2007

Mr. Christopher L. Hart
Chris Hart & Partners
115 N. Market St.
Wailuku, HI 96793

Subject: Early Consultation Letter for the Proposed Kaonoulu Phase IV Multi-Family Residential Development, Kenolio Road, Kihei; TMK: 3-9-01: 157, 158

Dear Mr. Hart:

Additional information is required to comment.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ranae Ganske-Cerizo".

Ranae Ganske-Cerizo
District Conservationist

Helping People Help the Land

An Equal Opportunity Provider and Employer





March 12, 2008

Ranae Ganske-Cerizo
District Conservationist
Natural Resources Conservation Services
210 Imi Kala St. Ste 209
Wailuku, HI 96793

Dear: Mrs. Ganske-Cerizo,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your letter dated October 24, 2007 indicating that your department needs additional information. Your department will receive a copy of the Draft Environmental Assessment and consolidated applications to review. We look forward to your comments at that time.

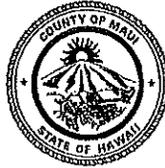
Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

CHARMAINE TAVARES
MAYOR



CARL M. KAUPALOLO
CHIEF

NEAL A. BAL
DEPUTY CHIEF

COUNTY OF MAUI
DEPARTMENT OF FIRE AND PUBLIC SAFETY
FIRE PREVENTION BUREAU

780 ALUA STREET
WAILUKU, HAWAII 96793
(808) 244-9161
FAX (808) 244-1363

October 25, 2007

RECEIVED
OCT 29 2007

CHRIS HART & PARTNERS
Landscape Architecture & Planning
cc: Brett 06/010

Mr. Chris Hart
Chris Hart & Partners
115 N. Market Street
Wailuku, Hawaii 96793

**Subject: Early Consultation Request for Kaonoulu Phase VI Multi-Family Residential
Development, Kenolio Road, Kihei HI TMK (2)3-9-001:157**

Dear Mr. Hart,

Thank you for the opportunity to review the subject project during this early consultation phase. At this time, we have no specific concerns to address. A detailed review will be conducted by our office during the building permit application process.

Please feel free to contact Lt. Scott English at 244-9161 if there are any questions or concerns regarding this project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Valeriano F. Martin".

Valeriano F. Martin
Captain
Fire Prevention Bureau



March 12, 2008

Captain Valeriano F. Martin
Fire Prevention Bureau
780 Alua Street
Wailuku, HI 96793

Dear: Captain Martin,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant, Piilani Makai, Inc., we acknowledge receipt of your
letter dated October 25, 2007 indicating no comment.

Thank you for your consideration of this application. Should you have any
questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

Christopher L. Hart, ASLA
Landscape Architect - Planner

Cc. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project File

LANDSCAPE ARCHITECTURE
CITY AND REGIONAL PLANNING

115 N. MARKET STREET • WAILUKU, MAUI, HAWAII 96793-1706 • PHONE 808-242-1955 • FAX: 808-242-1956



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

RECEIVED
NOV 20 2007

CHRIS HART & PARTNERS
115 N. MARKET STREET
WAILUKU, MAUI, HAWAII 96793

cc: Brett

HRD07/3310

November 14, 2007

Chris Hart, President
Chris Hart & Partners
115 N. Market Street
Wailuku, Maui, 96793-1706

**RE: Early Consultation Request for Proposed Kaonoulu Phase VI, Kihei, Maui,
TMKs: (2) 3-9-01:157, 158.**

Dear Mr. Hart,

The Office of Hawaiian Affairs (OHA) is in receipt of your request for written comments for an early consultation request for the proposed Kaonoulu Phase VI project on Maui. OHA will be glad to comment on this project as more information becomes available and at present offers these general comments:

On June 24th 2004, Hawai'i set a new renewable portfolio standard goal. By 2020, 20% of Hawai'i's electricity is to be from renewable sources. OHA commends the state for doing so and encourages all current developers to be forward-looking as well in their construction application, materials and appliances.

The City of Honolulu also has an ongoing program to outfit manholes with "rain stopper" inserts to minimize the amount of rainwater entering the manhole cover pick-holes and leaking between the cover and frame. The plastic dish-shaped inserts resting on the rim of the manhole frame (below the cover) capture the leaking rainwater, which minimize rainwater entry into the manhole. OHA encourages Phase VI in their roadway, drainage and water systems to help Mau'i's reef system and watershed by utilizing this and other techniques to control erosion.

Substantial inflow could potentially also enter manholes below the frame due to misalignment, damaged mortar or cone, or other problems. In some cases, rain induced infiltration may also enter through the manhole cone if the surrounding soil is highly permeable and the cone exhibits porous brick mortar joints. OHA suggests that all manholes be constructed to prevent the infiltration of stormwater to the utmost degree possible.

Chris Hart, President
Chris Hart & Partners
November 14, 2007
Page 2

Currently, the erosion control standards and guidelines recommend measures and implementation of certain Best Management Practices (BMPs) for small projects, in order to comply with the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) program, issued by the State Department of Health (DOH) Clean Water Branch (CWB). OHA urges the stringent use of BMPs during construction.

OHA appreciates that the applicant intends to retain all project-generated stormwater on-site. OHA does query, however, if the applicant intends to retain the stormwater permanently on-site, and if so then how the applicant will do so. Further, the addition of a filtration system may be useful.

We request assurance from the applicant that if iwi kūpuna or other cultural deposits are uncovered, work will stop and the applicant will contact the State Historic Preservation Division immediately.

Additionally, OHA would also like to suggest that the project area be landscaped with native or indigenous species. Any invasive species should also be removed. Doing so would not only serve as practical water-saving landscaping practices, but also serve to further the traditional Hawaiian concept of mālama 'āina and create a more Hawaiian sense of place.

OHA appreciates having been consulted with at this stage in the project. At this time, OHA does not have any further comments. If you have any further questions or concerns please contact Grant Arnold at (808) 594-0263 or granta@oha.org.

Sincerely,



Clyde W. Nāmu'o
Administrator

C: Thelma Shimaoka, Community Resource Coordinator
Office of Hawaiian Affairs, Maui Office
140 Ho'ohana St., Ste. 206
Kahului, Hawai'i 96732



March 13, 2008

Mr. Clyde W. Nāmu‘o, Administrator
Office of Hawaii Affairs
711 Kapiolani Blvd, Suite 500
Honolulu, HI 96813

Dear: Mr. Nāmu‘o,

RE: Early Consultation request for the proposed Kaonoulu Phase VI,
Kihei, Maui, Hawaii at TMK's: (2) 3-9-01:157, 158.

On behalf of the applicant Piilani Makai, Inc., we acknowledge receipt of your letter dated November 14, 2007 and responses to the general comments, are as follows:

The proposed project will not generate energy, however the applicant will be "forward-looking" in construction application, materials and appliances for the proposed project.

The proposed project will include the installation of sewer manholes. The applicant has retained a licensed Engineer to mitigate infiltration of stormwater which may include the use of "rain stopper" inserts.

A licensed engineer will develop a drainage plan with appropriate infrastructure to prevent the infiltration of stormwater and control erosion. The applicant will comply with recommended measures and implementation of Best Management Practices (BMP's) for small projects, in order to comply with the U.S. Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) program, issued by the State Department of Health (DOH) Clean Water Branch (CWB).

The proposed drainage system will not permanently retain stormwater on-site. Runoff disposal from the project site will be piped underground to a culvert previously installed on Parcel 158. This previously installed drainage system discharges into the nearby Kulanihakoi Gulch.

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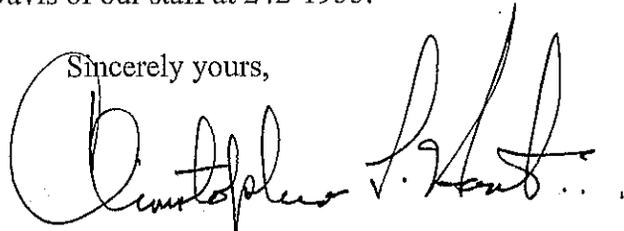
Mr. Clyde W. Nāmu‘o, Administrator
Office of Hawaii Affairs
Early Consultation Response Letter
March 13, 2008
Page 2 of 2

In the unlikely event that iwi kupuna or other cultural deposits are uncovered, work will stop and the applicant will contact the State Historic Preservation Division. The Draft Environmental Assessment will include an Archaeological Field Inspection, and a Cultural Impact Assessment report.

A licensed Landscape Architect has been retained to create a landscape plan with the primary focus on native species which will also serve as a practical water-saving landscape. (See: Landscape Plan)

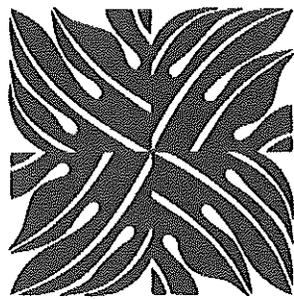
Thank you for your consideration of this application. Should you have any questions, please contact Brett Davis of our staff at 242-1955.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Christopher J. Hart". The signature is written in a cursive style with a large initial "C".

Christopher J. Hart, ASLA
Landscape Architect - Planner

CC. Mr. Dennis Boehlje
Mrs. Faith Okuma
Project Folder



**CHRIS
HART**
& PARTNERS, INC.

LANDSCAPE ARCHITECTURE & LAND USE PLANNING