April 5, 2012

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

Dear Mr. Hooser:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR PROPOSED HABITAT FOR HUMANITY KAHAWAI CONDOMINIUMS IN WAILUKU, MAUI, HAWAII, TMK (2) 3-4-033:022

The County of Maui, Department of Housing and Human Concerns, has reviewed the Draft Environmental Assessment (EA) for the subject project, and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish notice of availability for this project in the next available Office of Environmental Quality Control (OEQC) Environmental Notice.

We have enclosed a completed OEQC Publication Form, one (1) hard copy and one (1) pdf copy of the Draft EA. Please call Colleen Suyama of Munekiyo & Hiraga, Inc. at (808) 244-2015 if you have any questions.

Sincerely,

[Signature]
JO-ANN T. RIDAO
Director of Housing and Human Concerns

Enclosures
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Colleen Suyama, Munekiyo & Hiraga, Inc.
April 17, 2012

Gary Hooser, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Hooser:

SUBJECT: Draft Environmental Assessment (EA) for Proposed Habitat for Humanity Kahawai Condominiums in Wailuku, Maui, Hawaii, TMK (2) 3-4-033:002

The County of Maui Department of Housing and Human Concerns has reviewed the Draft Environmental Assessment (EA) for the subject project, and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish notice of availability for this project in the next available Office of Environmental Quality Control (OEQC) Environmental Notice.

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JOANN T. RIDAO, DIRECTOR
Department of Housing and Human Concerns
County of Maui

Enclosures
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
    Colleen Suyama, Munekiyo & Hiraga, Inc.
April 5, 2012

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

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Director of Housing and Human Concerns

Enclosures
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.  
Colleen Suyama, Munekiyo & Hiraga, Inc.
Draft Environmental Assessment

PROPOSED HABITAT FOR HUMANITY KAHAWEA CONDOMINIUMS
(TMK No. (2) 3-4-033:002)

Prepared for:
Habitat for Humanity Maui, Inc.

Approving Agency:
County of Maui
Department of Housing and Human Concerns

April 2012

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# CONTENTS

Executive Summary ........................................................... Page i

I. PROJECT OVERVIEW ............................................................ Page 1
   A. PROJECT LOCATION, CURRENT LAND USE, AND OWNERSHIP .... Page 1
   B. PROPOSED ACTION ............................................................ Page 1
   C. PROJECT NEED ................................................................. Page 5
   D. AFFORDABLE HOUSING PROGRAM .................................... Page 6
   E. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENT .... Page 7
   F. IMPLEMENTATION TIME FRAME AND PROJECT COST .......... Page 7

II. DESCRIPTION OF EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES ............................................................ Page 8
   A. PHYSICAL ENVIRONMENT .................................................. Page 8
      1. Surrounding Land Uses .............................................. Page 8
      2. Climate ................................................................. Page 9
      3. Topography and Soil Characteristics ........................... Page 11
      4. Flood and Tsunami Hazards ...................................... Page 14
      5. Streams and Wetlands ............................................. Page 18
      6. Flora and Fauna ..................................................... Page 20
      7. Archaeological and Historical Resources ..................... Page 20
      8. Cultural Resources .................................................. Page 22
      9. Air and Noise Quality .............................................. Page 24
     10. Scenic and Open Space Resources ............................... Page 26
     11. Traditional Beach and Mountain Access ...................... Page 27
   B. SOCIO-ECONOMIC ENVIRONMENT ..................................... Page 27
      1. Regional Setting ..................................................... Page 27
      2. Population ........................................................... Page 28
      3. Economy and Labor Force ....................................... Page 29
      4. Housing ............................................................ Page 30
   C. PUBLIC SERVICES .......................................................... Page 32
      1. Recreational Facilities .......................................... Page 32
      2. Police and Fire Services ......................................... Page 33
      3. Medical Services .................................................. Page 33
D. INFRASTRUCTURE ........................................ Page 35
   1. Roadways ........................................ Page 35
   2. Wastewater ......................................... Page 37
   3. Water ............................................... Page 38
   4. Drainage ........................................ Page 40
   5. Electrical, Telephone, and Cable Television Services .......... Page 41

E. CUMULATIVE AND SECONDARY IMPACTS .................. Page 41

III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS .................................................... Page 43

   A. STATE LAND USE DISTRICTS ...................... Page 43
   B. CHAPTER 226, HRS, HAWAII STATE PLAN .......... Page 43
   C. STATE FUNCTIONAL PLANS ....................... Page 47
   D. MAUI COUNTY GENERAL PLAN .................... Page 48
   E. WAILUKU-KAHULUI COMMUNITY PLAN .......... Page 52
   F. WAILUKU REDEVELOPMENT PLAN ................ Page 55
   G. MAUI COUNTY ZONING ........................... Page 56
   H. HAWAII COASTAL ZONE MANAGEMENT PROGRAM .... Page 56

IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED ........................................... Page 66

V. ALTERNATIVES TO THE PROPOSED ACTION ................. Page 67

   A. PREFERRED ALTERNATIVE ....................... Page 67
   B. NO ACTION ALTERNATIVE ..................... Page 67
   C. SINGLE-FAMILY RESIDENCE ..................... Page 67

VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES Page 68

VII. SIGNIFICANCE CRITERIA ASSESSMENT ................ Page 69

VIII. LIST OF PERMITS AND APPROVALS ..................... Page 74
LIST OF FIGURES

Figure 1. Regional Location Map .................................................. Page 2
Figure 2. Site Location Map .......................................................... Page 3
Figure 3. Site Plan ................................................................. Page 4
Figure 4. Soil Association Map .................................................... Page 12
Figure 5. Soils Classification Map ............................................... Page 13
Figure 6. Flood Insurance Rate Map ............................................. Page 15
Figure 7. Preliminary Flood Insurance Rate Map ................................ Page 17
Figure 8. State Land Use District Map ........................................... Page 44
Figure 9. Wailuku-Kahului Community Plan Map .......................... Page 54

LIST OF APPENDICES

Appendix A. Project Plans
Appendix B. Preliminary Engineering Report
Appendix C. Response from U.S. Fish and Wildlife Service
Appendix D. Archaeological Assessment Survey
Appendix D-1. State Historic Preservation Division Letter
Appendix E. Cultural Impact Assessment
Appendix F. Traffic Assessment Report
Executive Summary

Project Name: Proposed for Habitat for Humanity Kahawai Condominiums

Type of Document: Draft Environmental Assessment

Legal Authority: Chapter 343, Hawaii Revised Statutes

Agency Determination: Anticipated Finding of No Significant Impact (FONSI)

Applicable Environmental Assessment Review “Trigger”: Use of County Funds

Location: 2024 Kahawai Street
Island of Maui
Wailuku
TMK No. (2) 3-4-033:002

Applicant: Habitat for Humanity Maui, Inc.
970 Lower Main Street
Wailuku, Hawaii 96793

Approving Agency: County of Maui, Department of Housing and Human Concerns
2200 Main Street, Suite 546
Wailuku, Hawaii 96793
Contact: Jo-Ann T. Ridao, Director
Phone: (808) 270-7805

Consultant: Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793
Contact: Gwen Ohashi Hiraga
Phone: (808) 244-2015

Project Summary: Habitat for Humanity Maui, Inc. (Habitat) proposes to develop the Kahawai Condominiums which involves the construction of 16 condominium units housed in one (1) building on an 11,187 square foot lot. Access to the project will be provided via Kahawai Street at the property’s southern boundary.

Habitat is pursuing the project to respond to the growing demand for affordable housing on the island of Maui. The
proposed action will increase the supply of permanent affordable housing for sale to Maui families.

The condominium units will be made affordable to families earning at or below 80 percent of the area median income in Maui County.

The subject parcel is currently vacant. It was formerly occupied by a single-family residence that was demolished in 1993. The subject property is located within the limits of the State Land Use "Urban" district. The Wailuku-Kahului Community Plan designates the subject property for "Business/Commercial" use, while the underlying Maui County zoning identifies the project in the Wailuku Redevelopment Area, “Community Mixed Use District”. The proposed project is a permitted use within the land use classifications. The subject property is not located within the limits of the County of Maui's Special Management Area.

The project is partially funded by the County of Maui. The use of County funds is a trigger for Chapter 343, Hawaii Revised Statutes (HRS) and Chapter 11-200 of the Hawaii Administrative Rules (HAR) process. The County of Maui, Department of Housing and Human Concerns (DHHC) administers County funds for housing projects. As such, DHHC has been identified as the proper accepting authority.
I. PROJECT OVERVIEW
I. PROJECT OVERVIEW

A. PROJECT LOCATION, CURRENT LAND USE, AND OWNERSHIP

Habitat for Humanity Maui, Inc. (Habitat), an independent, private non-profit housing and community development organization, proposes to develop the Kahawai Condominiums on property located at 2024 Kahawai Street in Wailuku, Maui (“Property” or “Project Site”). See Figure 1. The property, measuring 11,187 square feet (s.f.), is located within the urban core of Wailuku, and is further identified by Tax Map Key (TMK) (2) 3-4-033:002. See Figure 2.

The subject property is currently vacant. It was formerly used for a single-family residence that was demolished in 1993. Since then, the property has been cleared and graded. The parcel is designated “Urban” by the State Land Use Commission and “Business/Commercial” by the Wailuku-Kahului Community Plan. The property is located within the Wailuku Redevelopment Area and is designated “Community Mixed Use District” by Maui County Zoning.

Single-family residential housing and commercial uses surround the property. The property is bordered by Kahawai Street to the south and Lewa Place to the west.

The subject property is currently owned by Habitat.

B. PROPOSED ACTION

The Kahawai Condominiums (“Project”) involve the development of 16 condominium units housed in a three-story building measuring 36 feet in height. The three-story building will be comprised of two (2) stories of condominium units over ground floor parking. The units will be made affordable for sale to families earning at or below 80 percent of the area median income (AMI) in Maui County. Access to the condominium complex will be provided via Kahawai Street at the property’s southern boundary. See Figure 3. The units will be financed by Habitat, who will select qualified candidates and service the mortgages of potential homeowners.
Figure 1  Proposed Habitat for Humanity Kahawai Condominiums Regional Location Map

Prepared for: Habitat for Humanity Maui, Inc.
Figure 2

Proposed Habitat for Humanity Kahawai Condominiums
Site Location Map

Prepared for: Habitat for Humanity Maui, Inc.
Figure 3  Proposed Habitat for Humanity Kahawai Condominiums Site Plan
The proposed project will include 12 one-bedroom/one-bathroom units and four (4) two-bedroom/one-bathroom units above ground floor parking. The units will range from 596 s.f. for a one-bedroom unit to 874 s.f. for a two-bedroom unit. All units will be American with Disabilities Act (ADA)-adaptable. See Appendix “A”.

The project will include 20 parking spaces: one (1) space for each one-bedroom unit and two (2) spaces for each two-bedroom unit. One (1) space will be reserved for handicap parking. Refer to Appendix “A”.

Proposed site improvements include grading and utilities installation of onsite water, sewer, and drainage systems. The onsite drainage system will consist of catch basins and underground drainlines leading to an onsite subsurface drainage system located beneath the paved parking. The subsurface drainage system consists of a perforated drainline embedded in crushed rock wrapped with a layer of filter fabric. Electrical, telephone, and cable utility systems will be installed from the existing overhead facilities servicing the project area.

The proposed action is in keeping with Habitat’s goal to work in partnership with people in need to build affordable housing. Volunteers provide most of the labor, and individual and corporate donors provide money and materials to build Habitat homes. Participating families invest hundreds of hours of labor into building their homes and the homes of others.

C. PROJECT NEED

As noted in the Housing element of the Draft Maui Island Plan, Maui residents face a critical housing situation. The median sales price for new and existing single-family homes and condominiums has often exceeded what workforce households can afford. As a result, County residents spend a higher percentage of their income on housing and have a lower homeownership rate than the nationwide average (County of Maui, Department of Planning 2009). According to the 2010 Census, Maui County’s homeownership rate stood at 56 percent, compared to the nationwide homeownership rate of 67 percent.

The proposed Kahawai Condominiums will provide a much needed increase to the island’s permanent supply of affordable home ownership units. The 16 condominium units will be priced for sale at levels affordable to households earning at or below 80 percent of AMI for Maui County. According to the U.S. Department of Housing and Urban Development’s (HUD) published 2012 income limits, the maximum income for households earning at or below 80 percent of AMI in Maui County ranges from $57,200.00 for two-person households
to $71,500.00 for four-person households. Habitat proposes to serve this household income group with the proposed project.

D. AFFORDABLE HOUSING PROGRAM

The proposed project will provide affordable units for purchase to qualified individuals and families. Units will be affordable to families earning at or below 80 percent of the County of Maui AMI. Habitat will provide and service 0 percent interest, 30-year fixed mortgages for homebuyers. Habitat will enter into an affordable housing agreement with the County establishing the specific terms and conditions for marketing and sales requirements of the affordable housing units.

The proposed sales prices for the condominium units are preliminarily estimated at $187,500.00 to $243,500.00 based on 2012 income guideline. The estimated sales prices are exclusive of maintenance fees, which may be applicable to the property to assure the proper upkeep and management of common areas for the use and enjoyment of all occupants. Monthly maintenance fees are estimated between $230.00 and $340.00 per unit based on the square footage of the units. Management of the property is anticipated to be provided by Habitat. Prices are subject to County median family income data at the time of project implementation.

Importantly, the proposed project will remain affordable in perpetuity, providing affordable homeownership opportunities for other households in the future. The condominiums’ deed restrictions will contain provisions for equity sharing and a right of first refusal to allow Habitat to repurchase the property from the initial buyer and re-sell it to another qualified household. Habitat’s commitment to the long-term affordability of the Kahawai Condominiums ensures that the proposed project will continue to address the County’s affordable housing needs into the future.

Additionally, Habitat will offer homeowner education to potential buyers, including budgeting, credit counseling, and debt management. Family support managers will also be available and will continue to offer support services after the units have been sold to homeowners.
E. CHAPTER 343, HAWAII REVISED STATUTES REQUIREMENT

The proposed project will involve Federal grant funding, as well as funding from the County of Maui. As such, the proposed action involves the use of County of Maui funds, which is a trigger for the preparation and processing of an environmental analysis pursuant to Chapter 343, Hawaii Revised Statutes (HRS). Based on the scope of the proposed project, this Draft Environmental Assessment (EA) is prepared in accordance with the Environmental Impact Statement Rules found in Title 11, Chapter 200, of the Hawaii Administrative Rules (HAR). This Draft EA is intended to address the use of County funds and for purposes including, but not limited to, any roadway, infrastructure, utility system, or other improvement relating to the development of the proposed project. The County of Maui, Department of Housing and Human Concerns administers County funds relative to affordable housing projects, and as such, is identified as the proper agency to review and process the EA document.

Separately, a U. S. Department of Housing and Urban Development EA is being prepared pursuant to the National Environmental Policy Act and 24 Code of Federal Regulations (CFR) 58.36. This separate EA document will be processed through the Department of Housing and Human Concerns and the U. S. Department of Housing and Urban Development.

F. IMPLEMENTATION TIME FRAME AND PROJECT COST

Construction of the Kahawai Condominiums will commence after required permits have been secured. Assuming all necessary approvals and entitlements are obtained, construction is expected to begin in 2012 with completion estimated in three (3) years.

Total development costs for the Kahawai Condominiums is estimated at $3.2 million.
II. DESCRIPTION OF EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES
II. DESCRIPTION OF EXISTING CONDITIONS, POTENTIAL IMPACTS, AND PROPOSED MITIGATION MEASURES

A. PHYSICAL ENVIRONMENT

1. Surrounding Land Uses

   a. Existing Conditions

      The site of the proposed Kahawai Condominiums is located in the Happy Valley community of Wailuku, Maui. Wailuku is an urban center of the Central Maui region and has maintained its role as the civic, financial, and cultural center for the island. Residential areas, both old and new, surround Wailuku Town. Happy Valley is a community located just north of Wailuku Town and accessible via North Market Street.

      The project site is bordered by Kahawai Street to the south and Lewa Place to the west. Existing residences surround the project site to the north and west. Commercial and residential uses on North Market Street lie to the east of the project site. Iao Stream is located across of Kahawai Street, south of the proposed project. Refer to Figure 1 and Figure 2.

   b. Potential Impacts and Proposed Mitigation Measures

      The proposed development is an urban infill multi-family affordable housing project in the existing Happy Valley community. The project site is currently vacant, but was formerly occupied by a single-family home that was demolished in 1993. Vegetation such as small trees, shrubs, and grasses, can be found at the project site. The project site is located near the urban core of Wailuku and in close proximity to single-family and multi-family uses. The proposed action is intended to provide affordably priced condominiums to address the increased need for affordable homeownership opportunities for Maui’s residents. The project complements the existing residential character of the area.
2. Climate

a. Existing Conditions

Climate is defined as a measurement of meteorological elements for a given region over long periods of time. The most common measurements include temperature, humidity, atmospheric pressure, wind, rainfall, and atmospheric particle count. The climate of a location is affected by its latitude, terrain, elevation, and proximity to water bodies.

Like most areas of Hawaii, Maui’s climate is relatively uniform year-round and characterized by two (2) seasons: summer (May to September) and winter (November to April). Characteristic of Maui’s climate, the project site experiences mild and uniform temperatures, moderate humidity, and relatively consistent northeasterly tradewinds. This stability is attributed to Maui’s tropical latitude, relative to the Pacific anticyclone and storm tracts, consistent tradewinds, and the surrounding ocean currents. Variation in climate among the different regions in Maui are largely due to local terrain.

Historically, in the region, September is the warmest month with an average in the high 80 degrees Fahrenheit (measured at Kahului Airport), while the coolest month is February with an average in the low 60s (County of Maui, Office of Economic Development, 2011).

Rainfall in the region is seasonal, with most precipitation occurring between October and March. Annual rainfall data for Central Maui shows an average of 18.68 inches (County of Maui, Office of Economic Development, 2011).

The winds in the region are predominantly tradewinds from the north-northeast. In general, tradewinds blow stronger in the afternoon. The tradewinds blow onshore toward the warmer land mass during the day; during the evening, the tradewinds blow offshore toward the relatively warmer ocean.

Scientists report that the earth’s climate is changing and average temperatures are rising. The most recent decades have experienced a
greater increase in the warming trend of which much is attributed to human activities that release “greenhouse gases (GHG)” into the atmosphere. Scientists conclude that continued increases in global temperature may likely change the earth’s climate. Among the factors contributing to GHG emissions are human energy consumption (i.e., burning of fossil fuels) and deforestation (USEPA).

Various technologies and measures exist aimed to reduce GHG emissions from different energy end-use sectors (buildings, transportation, and industry). Using available, cost-effective technologies can increase energy efficiency in buildings of all types (residential, commercial, and institutional) resulting in sharp reductions in GHGs by decreasing the demand for production, distribution, and use of fossil fuels and electricity needed for activities within the building structure. Measures to reduce GHG emissions in buildings include: using technology/equipment aimed at reducing energy use (i.e., energy efficient appliances, cooling systems, and lighting); using sustainable building techniques; and, ensuring correct installation, operation, and management of the building’s energy systems. The largest potential energy savings for buildings is the equipment. The typical savings are in the range of 30 to 40 percent just by using energy efficient equipment including, but not limited to, air conditioners, home appliances, and fluorescent lighting. By employing some of these measures on a global scale, it is estimated that there is a potential to reduce global residential and commercial buildings carbon emissions on the order of 25 percent by 2020 and up to 40 percent by 2050 (Moreno, 1996).

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is an urban infill development with a limited footprint of 11,187 sq. ft.

The project proposes to incorporate the following energy savings measures:

- Install Energy Star rated appliances
- Install low flow water fixtures
- Install compact fluorescent (CF) lamps
Also, the project will consider the feasibility of installing a photovoltaic system to meet its energy needs. In addition, the project’s design incorporates a landscape planting plan that will utilize shade trees and other vegetative cover to offset potential increases in surface and air temperatures within the project area generated from the paved surfaces.

Based on the foregoing, the proposed action is not anticipated to alter local climatic conditions.

3. Topography and Soil Characteristics

a. Existing Conditions

Underlying the project site are soils belonging to the Pulehu-Ewa-Jaucus association. See Figure 4. The Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii characterizes the soils of the Pulehu-Ewa-Jaucus association as consisting of well-drained and excessively drained, medium-textured, moderately fine-textured, and coarse-textured soils on alluvial fans and in basins on the island of Maui, mainly in Central Maui. These soils are nearly level to moderately sloping. The association makes up approximately 4 percent of the island (USDA Soil Conservation Service, 1972).

The specific soil type underlying the project site is lao cobbly silty clay, 3 to 7 percent slopes (lBb). See Figure 5. Lao cobbly silty clay, 3 to 7 percent slopes, is characterized as a very deep, well-drained soil that occurs on gently sloping alluvial fans. Cobblestones are common in the surface layer. The surface layer is comprised of cobbly silty clay while the subsoil is clay and silty clay. The soil is characterized by moderately slow permeability and medium runoff, with a slight to moderate erosion hazard (USDA Soil Conservation Service, 1972).

b. Potential Impacts and Proposed Mitigation Measures

Site work for the proposed improvements will involve clearing, grubbing, and grading. The project is being designed to limit the need for extensive grading. A grading permit, as required, will be obtained from the County prior to initiation of construction.
LEGEND

1. Pulehu-Ewa-Jaucas association
2. Waiakea-Keahua-Molokai association
3. Honolua-Olelo association
4. Rock land-Rough mountainous land association
5. Puu Pa-Kula-Pane association
6. Hydrandepts-Troquados association
7. Hana-Makaalae-Kailua association
8. Pauwela-Haiku association
9. Laumana-Kaipoipo-Olinda association
10. Keawakapu-Makena association
11. Kamaole-Oanapuka association

Figure 4  Proposed Habitat for Humanity Kahawai Condominiums Soil Association Map

Map Source: USDA Soil Conservation Service

Prepared for: Habitat for Humanity Maui, Inc.

NOT TO SCALE
Figure 5
Proposed Habitat for Humanity
Kahawai Condominiums
Soils Classification Map

Prepared for: Habitat for Humanity Maui, Inc.
Best Management Practices (BMPs), to reduce soil erosion during construction, will be implemented in compliance with County requirements prior to the start of any construction activity. Examples of BMPs may include, but not be limited to:

1. Prevention of cement products, oil, fuel, and other toxic substances from falling or leaching into the water.

2. Prompt and proper disposal of all loosened and excavated soil and debris material from drainage structure work.

3. Retention of ground cover until the last possible date.

4. Stabilization of denuded areas by sodding or planting as soon as possible.

5. Early construction of drainage features.


See Appendix “B”.

While terrain will be locally modified to meet site design requirements, the proposed improvements are not anticipated to adversely alter topographic characteristics in the vicinity.

4. Flood and Tsunami Hazards

a. Existing Conditions

As indicated by the Flood Insurance Rate Map (FIRM) for the area, the subject property is located in Zone X (shaded), which denotes an area of minimal flooding and low flood risk. See Figure 6. Specifically, the Federal Emergency Management Agency (FEMA) describes areas in Flood Zone X (shaded) as follows:

Areas of 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile, or areas protected from base flood by levees. No Base
Figure 6 Proposed Habitat for Humanity Kahawai Condominiums Flood Insurance Rate Map

Prepared for: Habitat for Humanity Maui, Inc.
Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

The FEMA, State Department of Land and Natural Resources (DLNR), and County of Maui are currently in the process of updating the FIRMs for Maui County to incorporate new data regarding potential flooding resulting from hurricane events and levee failure. New preliminary FIRMs are available on-line depicting the proposed map changes. The FEMA and County of Maui anticipate finalizing these maps in 2012. The preliminary FIRM indicates a change in designation for the project site from Zone X to Zones AE and AEF. See Figure 7. Flood Zones AE and AEF are considered Special Flood Hazard Areas, which are described as areas subject to flooding by the 1 percent annual chance flood. The FEMA further describes these flood zones as follows:

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. In most instances, whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AEF represents floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

However, it should be noted that the preliminary flood maps are for commenting purposes only and not to be used for official/legal decisions or regulatory compliance (State Department of Land and Natural Resources, 2011).

The project site is situated in a location which is outside of the tsunami inundation area.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is not currently located within a Special Flood Hazard area. However, the preliminary FIRM maps depict the project site
Figure 7

Proposed Habitat for Humanity Kahawai Condominiums
Preliminary Flood Insurance Rate Map

Source: State of Hawaii, Department of Land and Natural Resources,
Flood Hazard Assessment Report, 2011

Prepared for: Habitat for Humanity Maui, Inc.
in Special Flood Hazard Areas Zones AE and AEF. Although these maps are not effective with regards to regulatory compliance, the proposed project has been designed to accommodate changes that may be required should the maps be finalized. The ground floor level of the proposed structure is reserved exclusively for parking, so the liveable areas of the condominium units will not be affected in a flood event. Moreover, because the project is located outside of the tsunami inundation area, there are no threats to the surrounding areas from coastal wave action. No adverse impacts with regards to flood and tsunami hazards are anticipated.

5. **Streams and Wetlands**

a. **Existing Conditions**

There are no streams within the project site. However, Iao Stream is located across Kahawai Street to the south. This stream is listed by the State of Hawaii, Department of Health as an impaired water, indicating that the water quality within the stream may not meet State of Hawaii water quality criteria for streams.

Iao Stream is one (1) of the four (4) streams in the Wailuku District that comprises Na Wai Eha. The three (3) other streams are Waikapu, Waiehu, and Waihee. In March 2008, Na Wai Eha was designated as a surface water management area, the first such designation in the state. Any person who is making or wanting to make a withdrawal, diversion, impoundment, or consumptive use of surface water in the area is required to apply for a Surface Water Use Permit (WUP) from the Commission on Water Resource Management. However, no WUP is required for domestic consumption of surface water by individuals, for users of any Maui Department of Water Supply water system, and for the use of rain catchment systems to gather water (Commission on Water Resource Management, 2011).

There are no wetlands on or in the immediate vicinity of the project site. The nearest wetland is a freshwater emergent wetland located over 2,000 feet to the northeast of the project site. Kanaha Pond is located approximately 3.3 miles east of the project site.
b. **Potential Impacts and Proposed Mitigation Measures**

No adverse impacts to Iao Stream are anticipated as a result of the proposed project. Appropriate construction BMPs will be implemented to prevent runoff generated on the project site from impacting Iao Stream and downstream properties. These BMPs include, but are not limited to:

1. Prevention of cement products, oil, fuel, and other toxic substances from falling or leaching into the water.
2. Prompt and proper disposal of all loosened and excavated soil and debris material from drainage structure work.
3. Retention of ground cover until the last possible date.
4. Stabilization of denuded areas by sodding or planting as soon as possible.
5. Early construction of drainage features.

Further, long-term BMPs will include the following:

1. Avoidance of fertilizers or biocides or limit application to periods of low rainfall.
2. Retention of run-off on site.

Refer to Appendix “B”.

The proposed project is not anticipated to adversely impact wetlands in the region.
6. **Flora and Fauna**

a. **Existing Conditions**

The project site has been vacant since the demolition of the single-family home that occupied the property in 1993. Vegetation at the project site generally consists of small trees, shrubs, and grasses.

Terrestrial fauna in the region include introduced species, such as cats, mice, rats, and mongoose. Some of the avifauna introduced to the area include the Spotted Dove, Zebra Dove, Northern Cardinal, Red-Crested Cardinal, and Mynah.

There are no known rare, endangered, or threatened species of flora and fauna, or habitat, located within or in the vicinity of the project site. On January 9, 2012, the U.S. Fish and Wildlife Service commented that there are no documented observations pertaining to the occurrence of listed species or designated critical habitat within the vicinity of the proposed project. No further action pursuant to the Endangered Species Act is necessary. See Appendix “C”.

b. **Potential Impacts and Proposed Mitigation Measures**

There are no rare, federally threatened, or endangered species of plants on the property. Further, there are no known rare or federally endangered or threatened species of fauna or avifauna in the vicinity of the project site. Accordingly, the proposed development is not anticipated to have a significant impact on those elements of the natural environment.

7. **Archaeological and Historical Resources**

a. **Existing Conditions**

An Archaeological Assessment Survey (AAS) was prepared by Xamanek Researches, LLC. See Appendix “D”. The project site has been impacted by previous groundwork. Previously, the project site was occupied by a single-family home that was demolished in 1993. Except for the present-day cinder block boundary wall, the site has remained vacant since the
demolition of the single-family home. The property is located in an established residential neighborhood.

**Historical Context**

The ahupua’a of Wailuku stretches around Kahului Bay from Paukukalo to Kapakaulua, including Iao Valley and the northern half of the Kahului Isthmus. Iao Valley and the two (2) associated dunes on the north and south side of the river, constituted the core area of Wailuku. This was the central place of religious and political power on Maui until Kahekili’s death in 1794.

During the reign of Kamehameha, the steady flow of foreign influences began which brought change to the landscape and lifestyle. The first missionaries arrived in Wailuku in 1832 and brought the Christian religion. Another influence was foreign commercialism, in the form of sugar production. The first sugar cane crop was harvested and processed in 1828 at the Hungtai Sugar Works. The Hungtai Sugar Works continued to operate until the opening of the mill owned by Wailuku Sugar Company in 1862. The sugar industry continued to expand and in 1882 Hawaiian Commercial and Sugar Company was founded. Commercial activity also included cattle ranching. Commercial agricultural endeavors brought several ethnic groups to work throughout the islands, including Wailuku. Many plantation camps were located in central Maui. Remains from historic immigration camps and early historic homes, as well as commercial buildings, are located throughout the historic Wailuku corridor.

Lower Main Street was built along the route of an old government road stretching from the ocean to Wailuku Town and the inland portions of Iao Valley. The Kahului Railroad track paralleled Lower Main Street, and then swung to the south and west as it made its way to the train station at the foot of Main Street. Another route of the railroad was from Kahului Harbor to Wailuku Sugar Mill.

The commercial and residential growth of Wailuku is related to the growth of Kahului railroad. After the closure of the railroad in 1957, Wailuku
Town began to change. Many businesses closed, as the commercial center shifted to Kahului, but Wailuku remains the seat of County government.

b. Potential Impacts and Proposed Mitigation Measures

The AAS indicated the majority of the parcel has been previously impacted during land disturbance activities associated with previous development. No further archaeological work is recommended. However, given the location of the parcel, precautionary monitoring may be recommended. Refer to Appendix “D”. The State Historic Preservation Division (SHPD) and the Office of Hawaiian Affairs have reviewed the project pursuant to Section 106, National Historic Preservation Act (NHPA) and have determined no historic properties are affected. See Appendix “D-1”.

However, should any archaeological remains be encountered during construction, work in the vicinity of the find will be stopped and the SHPD will be contacted to establish appropriate mitigation measures in accordance with Chapter 6E, Hawaii Revised Statutes.

8. Cultural Resources

a. Existing Conditions

It has been estimated that the lower coastal valleys of the West Maui Mountains were settled early as an agriculturally oriented society, sustaining an expanding population into the late prehistoric period. Population growth led to the establishment of agricultural complexes in the upper valleys of the West Maui Mountains. These population centers, located in either coastal or upland regions, were characterized by extensive terrace and pondfield agriculture and dispersed residential structures on the outskirts of the agricultural complexes. Religious structures and fishponds in coastal areas were significant components of the population centers (Titchenal, 1996).

Wailuku town began to change in the early part of the eighteenth century with the arrival of missionaries and other westerners. In the 1860s, the missionary Edward Bailey founded the Wailuku Sugar Company. Sugar planting shaped the geographic settlement pattern and development of
Wailuku over the next 100 years as miles of ditches were dug, large tracts of land were cleared, and camps were built to house the thousands of workers who came to work in the fields. A sugar mill was built on the corner of Market and Mill Streets, south of the subject property, fueling growth in the town. Camps were built adjacent to the mill, with barber shops, meat and vegetable markets, fish markets, soda shops, banks, hardware stores, and other businesses established to meet the needs of the growing population (County of Maui, Department of Planning, February 2000).

By the late 1950s, Wailuku Town entered a period of decline and decentralization. Wailuku's sugar industry downsized, depressing the economy, and the popularization of the private automobile resulted in the dispersal of residential and retail centers to other areas of Central Maui, particularly Kahului. Today, Wailuku retains the small town character of its past and has a rich cultural diversity derived from the many different ethnic groups that lived in the area (County of Maui, Department of Planning, February 2000).

Ethnographic interviews were conducted for the proposed project with two (2) individuals who live in and are knowledgable about the Happy Valley area. Summaries of the ethnographic interviews are provided in Appendix “E”.

The two (2) interviewees recall that the subject property was formerly occupied by a private residence and an Odaisan Shrine. The shrine consisted of a building with a slanted roof and small alter used for services and was cared for by the family who occupied the residence on the property. The shrine was worshiped by a religion thought to be similar to the present-day Maui Jinsha located in Paukukalo, Maui. Maui Jinsha is one of many sects of Zen Buddhism. The shrine held Japanese cultural events and “fun days” for children. Sumo tournaments were held at the shrine but ended during World War II. Services at the shrine were also thought to have ended in 1945 with the advent of World War II. The shrine was converted to a residence around that time. There are no present-day cultural practices associated with the shrine.
The subject property was subsequently purchased and the new owner demolished the residential structures and built the present-day cinder block wall along the property boundaries.

b. **Potential Impacts and Proposed Mitigation Measures**

As previously mentioned, ethnographic interviews were conducted for the proposed project with two (2) individuals who live in and are knowledgeable about the Happy Valley area. Refer to Appendix “E”. A Japanese Odaisan Shrine formerly occupied the subject property along with a private residence. The shrine held cultural events such as sumo tournaments, and “fun days” for children. During the 1940s or 1950s, the shrine was converted to a private residence, which was later demolished. Japanese cultural practices associated with the Odaisan Shrine also ceased in the 1940s or 1950s. The project site is currently vacant. The two (2) interviewees do not recall other cultural practices occurring on the subject property.

The proposed project is not anticipated to adversely impact cultural resources or practices in the vicinity. The Kahawai Condominiums complements the surrounding single- and multi-family residential development and commercial development along North Market Street.

9. **Air and Noise Quality**

a. **Existing Conditions**

Air pollution results from both natural and man-made sources. Natural sources include windblown dust and volcanic activity. Man-made sources include industrial sources (e.g., power plants), mobile sources (e.g., vehicular traffic), and agricultural sources (e.g., cane burning).

Under the federal Clean Air Act, the Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS), which represent the maximum allowable atmospheric concentrations for six (6) criteria pollutants: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter (i.e., inhalable particulate matter ($PM_{10}$) and fine particulate matter, ($PM_{2.5}$)). The EPA designates areas of
the United States as having air quality equal to or better than NAAQS, referred to as attainment, or worse than NAAQS, referred to as non-attainment. The State Department of Health, Clean Air Branch regulates and monitors air pollution sources to ensure that levels of criteria pollutants remain well below the state and federal ambient air quality standards.

Air quality in Hawaii is relatively high, attributed in part to the consistent trade winds that quickly disperse concentrations of emissions. The rapid dispersion is evident during burning of sugar cane in fields located to the southeast of the Kahului residential core. In 2010, the state maintained 13 air monitoring stations on three (3) islands: Oahu, Hawaii, and Maui. Using data collected from these monitoring stations, the State of Hawaii was found in attainment for 2010 (State Department of Health, 2011).

The proposed project is located within the urban core of Wailuku, and the only known sources of pollutant air emissions in the immediate vicinity are associated with fuel combustion emissions from vehicular activity on nearby roadways.

In regards to noise quality, there are no significant fixed generators in the vicinity of the subject property. Existing background noise in the project area is attributable to vehicles traveling along North Market Street and other residential roadways.

b. Potential Impacts and Proposed Mitigation Measures

During construction, airborne particulates as a result of construction-related activities may temporarily affect the ambient air quality within the immediate vicinity of the project site. Mitigative measures will include utilization of dust barriers, water wagons, and/or sprinklers to control dust, as well as other appropriate BMPs to ensure that fugitive dust from the project area is minimized. By effectively employing these mitigative measures, construction-related activities are not anticipated to pose a significant impact to the air quality surrounding the area.

Ambient noise conditions may be temporarily affected by construction-related activities. Mitigation measures for construction-related activities will include using proper equipment and conducting regular vehicle
maintenance, both of which are anticipated to reduce noise levels. Equipment mufflers or other noise attenuating equipment may also be employed as required. Noise generating construction activities will be restricted to the hours between 8:30 a.m. and 4:30 p.m., Monday through Saturday, excluding holidays. By effectively employing these measures, potential noise-related impacts from construction-related activities may be mitigated.

From a long-term perspective, the project is not anticipated to generate adverse impacts to air or noise quality in the area.

10. **Scenic and Open Space Resources**

a. **Existing Conditions**

The project site is located in the urban area of Happy Valley, Wailuku. The West Maui Mountains are visible to the west of the project site, while Haleakalā is visible to the east. Iao Stream extends from the West Maui Mountains through Happy Valley to the Pacific Ocean. According to the Draft MIP in the vicinity of the project site, Iao Stream is identified as an exceptional scenic corridor offering views to the West Maui Mountains.

b. **Potential Impacts and Proposed Mitigation Measures**

The proposed project is compatible with the neighborhood surroundings and is not anticipated to significantly impact the scenic and open space resources of the area. The project site is an urban infill development. Single-family residences (one- and two-story dwellings) lie to the west and north of the project site. Directly adjacent to the east lies a vacant commercial structure (formerly Aki's Restaurant) and single-family residence. The project site is bounded by Kahawai Street to the south and beyond is Iao Stream. Extending further south beyond Iao Stream is Kahekili Terrace Housing Facility (a State of Hawaii housing project).

The proposed project is compatible with the urban development in the Happy Valley area. Multiple two-story buildings exist to the north of the project site along North Market Street. Most of these are multi-family housing structures and include H&T Ogawas, 390 N. Market Street.
Apartments, H&S Apartments, Happy Valley Apartments, and Mokuhau Apartments. In addition to these structures, many single-story structures along North Market Street have facades that give the appearance of a multi-level building. Such structures include Takamiya Market, Happy Valley Laundry, Valley Hardware and former TK Supermarket/Habitat Restore (current Living Way Church). The Kahekili Terrace Housing Facility located further south of the project site includes multiple two- and three-story structures.

11. Traditional Beach and Mountain Access

a. Existing Conditions

The project site is located approximately 0.5 mile from the nearest shoreline. There are no known traditional mountain access trails in or adjacent to the project site.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project will not adversely impact traditional beach or mountain access trails.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Regional Setting

a. Existing Condition

The project area is located in the Happy Valley neighborhood of Wailuku, just north of Wailuku town and south of Waiehu. Wailuku serves as the seat of County and State governments, with several agencies headquartered in the civic center area between Kaohu Street and Main Street. Wailuku also serves as a center for professional services including, medical, dental, legal, and design professions.

Neighborhood serving commercial establishments line North Market Street in the vicinity of the project. Two-story multi-family structures located further north of the project site include H&T Ogawas, 390 N. Market Street apartments, H&S Apartments, Happy Valley Apartments, and
Mokuhau Apartments. The Kahekili Terrace Housing Facility located further south of the project site includes multiple two- and three-story structures.

b. Potential Impacts and Proposed Mitigation Measures

The proposed project is an urban infill project and considered complementary to surrounding land uses. The regional character of Wailuku and the Happy Valley neighborhood will not be adversely impacted by the development of the Kahawai Condominiums.

2. Population

a. Existing Conditions

The population of the County of Maui has exhibited relatively strong growth over the past decade. The County’s resident population grew by 20.9 percent between 2000 and 2010, compared to a 12.3 percent increase in the State of Hawaii as a whole during the same time period. Maui County’s population increased from 128,094 residents in 2000 to 154,834 residents in 2010. Population on the island of Maui exhibited even stronger growth than the County as a whole, with a 22.8 percent population increase over the decade. Approximately 144,444 residents lived on the island of Maui in 2010 (U.S. Census Bureau, 2000 and 2010). Maui County’s resident population is projected to rise to 174,450 people in 2020 and to 199,550 people in 2030 (SMS, June 2006).

The proposed project is located within the Wailuku-Kahului Community Plan region. Just as Maui County and Maui Island’s populations have grown, the resident population of the Central Maui region has also increased. The estimated population of the Wailuku-Kahului region in 2000 was 41,503, which comprised 35.3 percent of the island’s population (SMS, June 2006). The population of the region in 2010 was approximately 54,400 residents (U.S. Census Bureau, 2010). The population of the Wailuku-Kahului region is projected to increase to approximately 60,900 people in 2020 and to 71,200 people in 2030 (SMS, June 2006).
b. Potential Impacts and Proposed Mitigation Measures

Given the size and scope of the proposed action, impact on population is expected to be minimal. The proposed project is not considered a direct population generator from a long-term perspective. Instead, the project is anticipated to accommodate demands for affordable housing for existing Maui residents. Any increase in population in the Wailuku-Kahului Community Plan region should be within expected growth parameters defined by migration and birth/death rates.

3. Economy and Labor Force

a. Existing Conditions

The Wailuku region is the island's center of governmental activity. Along with neighboring Kahului, the region encompasses a broad range of commercial, service, and public sector activities. In addition, the region is surrounded by approximately 32,000 acres of sugar cane. This vast expanse of agricultural land, managed by Hawaiian Commercial & Sugar Company (HC&S), are key contributors to the local economy.

There were approximately 65,934 jobs in Maui County in 2010 (State Department of Labor and Industrial Relations, 2012). Historic trends indicate that the largest proportion of jobs on the island are located in Central Maui. In 2000, jobs in the Wailuku-Kahului region accounted for approximately 44 percent of jobs in the island of Maui (SMS, 2006).

The State and County economies have been impacted by the nation’s recent economic recession, with the major industries of tourism, construction, and real estate being particularly hard hit due to, among other factors, reduction in discretionary income and tightening of the credit markets. Unemployment rates in the State and County peaked in the summer of 2009. Since that time, the unemployment rate has slowly declined. In December 2011, the seasonally unadjusted unemployment rate in Hawaii stood at 6.2 percent. The unemployment rate on the island of Maui was higher at 7.2 percent. However, this represents a slight improvement from one (1) year ago, when the seasonally unadjusted unemployment rate on the island was 7.3 percent in December 2010 (State Department of Labor and
b. Potential Impacts and Proposed Mitigation Measures

On a short-term basis, the project will support construction and construction-related employment. Accordingly, the project will have a beneficial impact on the local economy during the period of construction. From a long-term perspective, project residents will contribute to the local economy through the purchase of goods and services.

4. Housing

a. Existing Conditions

The average household size in the Wailuku-Kahului area in the year 2000 was 3.17 persons per household compared to an island wide average of 2.90. These numbers were expected to decrease to an average of 2.98 and 2.80, respectively, by the year 2010 (SMS, June 2006).

In 2010, Maui County’s housing supply totaled 70,379 units of which approximately 25 percent, or 17,900 units, were located in the Wailuku-Kahului Community Plan region. This accounts for the largest percentage of housing units on the island. By the year 2020, the number of households is expected to increase to 21,383; housing demand is projected to grow up to 23,774 units (SMS, June 2006).

Like communities across the state and nation, Maui County experienced significant fluctuations in home sale prices over the first decade of the 21st century. While home prices steadily increased through 2005, sale prices fell during the second half of the decade with the burst of the housing bubble and nation-wide recession. The median sales price for condominiums sold in Maui County in 2011 was $179,000.00 approximately 6 percent lower than the median condominium sales price of $189,500.00 in 2010. The condominium market in Central Maui is more affordable than the County as a whole and has remained more stable relative to resort areas such as Wailea/Makena and Kaanapali (Realtors Association of Maui, 2012).
b. Potential Impacts and Proposed Mitigation Measures

As noted previously, there is a need for affordable housing in Maui County. The proposed Kahawai Condominiums will increase the supply of permanent affordable housing in Central Maui by providing units affordable to families earning at or below 80 percent of AMI. Importantly, the units at the proposed project will remain affordable in perpetuity. As the local economy and housing market recovers, housing prices on Maui will increase again. The long-term affordability offered at Kahawai Condominiums will provide homeownership opportunities for families earning at or below 80 percent of AMI, with estimated sales price in the range of $187,500.00 to $243,500.00 based on 2009 AMI levels.

The County of Maui enacted a Residential Workforce Housing Policy Ordinance (Chapter 2.96, Maui County Code) in December 2006 to address the high cost of housing facing County resident workers and the critical shortage of affordable housing. The Ordinance requires a certain percentage of units in developments of five or more units to be affordable to income-qualified groups. The proposed project provides 100 percent of its units for affordable housing and, therefore, exceeds the Chapter 2.96 requirements for residential workforce housing units.

Although it is a commonly held belief that affordable housing developments result in lower neighboring property values, numerous studies found that this widely held preconceived notion is incorrect. Property values are based on the condition of the particular property for sale and other broad, complex forces, such as overall area development and prosperity. Academic, government, and privately-sponsored studies have found that the location of affordable housing has little or no effect on neighboring property values (Habitat for Humanity, 2011).

The belief that affordable housing will lead to declining property values is based on the assumption that one facility can affect a whole neighborhood and that affordable housing developments will be conspicuous, unattractive, poorly maintained, and poorly managed. While these assumptions are incorrect, it should also be noted that the proposed Kahawai Condominiums will remove blight rather than contribute to it. The project will transform
a vacant site into a residential development that adds to the neighborhood landscape.

C. PUBLIC SERVICES

1. Recreational Facilities

   a. Existing Conditions

   The Wailuku-Kahului region provides a full range of recreational opportunities, including shoreline and boating activities at the Kahului Harbor and adjoining beach parks, and individual and organized athletic activities at numerous County parks. The War Memorial Complex, for example, located along Kaahumanu Avenue, includes a gymnasium, swimming pool, tennis courts, youth baseball fields, football and soccer practice areas, the War Memorial Stadium, and a baseball stadium. Also found in the Wailuku-Kahului area are the Waikapu Community Center, Wailuku Community Center, Kahului Community Center, Kanaha Beach Park, and Keopuolani Park, a regional recreational facility.

   Mokuhau Park, a County-owned and operated facility, is located less than half a mile west of the proposed project site on Kahawai Street. The 2.4-acre park offers a baseball field, basketball court, and a multi-purpose field.

   b. Potential Impacts and Proposed Mitigation Measures

   The proposed project is not considered significant in terms of population generation, particularly because many buyers are expected to be current Maui residents. As such, the proposed project is not anticipated to place any significant new demands on recreational activities.

   One hundred (100) percent of the units will meet the affordable housing criteria of Chapter 2.96 Residential Workforce Housing Policy, Maui County Code (MCC). Pursuant to Section 18.16.320.1.5, the project is exempt from the assessment requirements for parks and playground.
2. **Police and Fire Services**

   a. **Existing Conditions**

   Police protection for the Wailuku-Kahului region is provided by the County Police Department headquartered in Wailuku on Mahalani Street. The region is served by the Department’s Wailuku Patrol Division.

   Fire prevention, suppression, and protection services for the Wailuku-Kahului region are provided by the County Department of Fire and Public Safety's Wailuku Station, located less than 0.5 mile from the project site and Kahului Station, located three (3) miles from the project site.

   b. **Potential Impacts and Proposed Mitigation Measures**

   Police and fire protection services are not expected to be adversely impacted by the proposed project. It is noted that this is an in-fill project, adjacent to existing residential areas in the Wailuku-Kahului urban core, and does not extend service area limits for emergency services.

3. **Medical Services**

   a. **Existing Conditions**

   Maui Memorial Medical Center, located on Mahalani Street, the only major medical facility on the island, services the Wailuku-Kahului region. Acute, general, and emergency care services are provided by the 231-bed facility. In addition, numerous privately operated medical/dental clinics and offices are located in the area to serve the region’s residents.

   b. **Potential Impacts and Proposed Mitigation Measures**

   Primary health care service for Central Maui will continue to be provided by the Maui Memorial Medical Center and existing private medical facilities in Central Maui. The proposed project is expected to service existing residents of Central Maui and is not anticipated to create a significant new demand for medical services.
4. **Solid Waste**

a. **Existing Conditions**

Single-family residential solid waste collection service is provided by the County of Maui. Residential solid waste collected by County crews is disposed at the County’s Central Maui Landfill, located 3.8 miles southeast of the Kahului Airport. In addition to County-collected refuse, the Central Maui Landfill accepts solid waste from private collection companies.

b. **Potential Impacts and Proposed Mitigation Measures**

A construction waste management plan will be developed in coordination with the County of Maui for the proper recycling and disposal of construction waste. Habitat operates the ReStore which accepts donations of new and slightly used construction materials and resells them to the public. Construction materials that can be resold will be taken to the ReStore. Solid waste collection and disposal for the multi-family units will be provided by a private collection company, Maui Disposal. The proposed project is expected to service existing residents of Central Maui and is not anticipated to significantly impact the long-term capacity of the Central Maui Landfill.

5. **Schools**

a. **Existing Conditions**

The Wailuku-Kahului region is served by the State Department of Education’s (DOE) public school system, as well as several privately operated schools accommodating elementary, intermediate, and high school students. Department of Education facilities in the Kahului area include Lihikai, Kahului, and Pomaikai Elementary Schools (Grades K-5), Maui Waena Intermediate School (Grades 6-8), and Maui High School (Grades 9-12). Existing facilities in the Wailuku area include Wailuku and Waihee Elementary Schools (Grades K-5), Iao Intermediate School (Grades 6-8), and Baldwin High School (Grades 9-12).
Waihee School (Grades K-5) is located approximately 3.0 miles to the north of the proposed project site, while Wailuku Elementary School (Grades K-5) is located approximately 0.6 mile to the south. Iao Intermediate and Baldwin High Schools are located approximately 0.5 and 0.3 mile to the south, respectively. The University of Hawaii-Maui College is located in Kahului along Kaahumanu Avenue and serves as the island’s primary higher education institution.

b. Potential Impacts and Proposed Mitigation Measures

The project involves the development of 16 one- and two-bedroom condominium units. The State Department of Education’s (DOE) estimated enrollment per multi-family unit in Central Maui indicates that the proposed project is anticipated to generate four (4) new public school students across all grade levels (State of Hawaii, Department of Education, 2010).

The project may be subject to DOE’s Central Maui School Impact Fee. Coordination with DOE will be undertaken to ensure that assessment policy provisions are appropriately addressed.

D. INFRASTRUCTURE

1. Roadways

a. Existing Conditions

The Wailuku-Kahului region is served by a roadway network that includes arterial, collector, and local roads. Major roadways include Kaahumanu Avenue, the principal linkage between Wailuku and Kahului, Lower Main/Kahului Beach Road, Hana Highway, and Puunene Avenue. State roadways in the region include Kahekili Highway and Waiehu Beach Road.

Kahawai Street is a local road that provides access to a residential subdivision in Happy Valley. Sidewalk and curb space are provided on the south side of Kahawai Street adjacent to Iao Stream but are not present along the north side of the street fronting the proposed project. Vehicles
are currently allowed to park along the southern side of Kahawai Street. Kahawai Street intersects with North Market Street at an unsignalized T-intersection to the east of the proposed project.

Lewa Place is a private road that intersects Kahawai Street and forms the western boundary of the project site. Lewa Place ends approximately 500 feet north of Kahawai Street.

North Market Street is an urban collector street that generally provides access between the Happy Valley area and the commercialized central areas in Wailuku. North Market Street is a two-way, two-lane roadway from its northern terminus to Vineyard Street. Between Vineyard Street and Main Street, North Market Street turns into a one-lane, one-way street for northbound traffic. Sidewalks and curbs are present on North Market Street and the posted speed limit is 20 mph in the vicinity of the project.

The County of Maui currently funds and provides public transportation through a Public Bus Transit System and a Bus-Commuter Service Program. These transit routes provide service in and between various Central, South, West, Haiku, and Upcountry Maui communities. The routes operate seven (7) days a week, including all holidays, for a nominal fee. The County of Maui Public Bus Transit System consists of twelve (12) bus routes. Wailuku Loop Routes 1 and 2 service the proposed project area. The nearest bus stops in the vicinity of the project site are approximately 0.2 mile walking distance to the north, near Piihana Terrace, and approximately 0.1 mile walking distance to the south, near Kahekili Terrace.

b. Potential Impacts and Proposed Mitigation Measures

The project may result in temporary construction-related traffic impacts during construction of the proposed project. This may include additional traffic generated by construction vehicles and equipment. Because volunteers will be used, the construction period is estimated to be three (3) years and the hours of construction will be limited to 8:30 a.m. to 4:30 p.m., Monday thru Saturday. Off-site parking for construction and volunteer-related personnel will be provided at Habitat’s home office.
located at 970 Lower Main Street in Wailuku. A van/bus will be used to transport construction and volunteer personnel to and from the project site.

When completed, access to the project site will be provided via Kahawai Street at the property's southern boundary. Austin, Tsutsumi & Associates, Inc. prepared a traffic assessment for the proposed project. See Appendix "F". From a long-term perspective, the proposed project is anticipated to generate 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour of traffic. The intersection of Kahawai Street and North Market Street will likely remain unsignalized as the project will have an estimated 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles during the evening peak hour. The proposed project is not anticipated to result in significant impacts to State highway facilities or County roadways in the region, including Kahekili Highway and Waiehu Beach Road.

Due to the location of employment areas, it is anticipated that the majority of trips generated will be headed away from Kahekili Highway and Waiehu Beach Road.

As previously mentioned, the Kahawai Condominiums will provide 20 parking spaces, including one (1) space for each one-bedroom unit and two (2) spaces for every two-bedroom unit. One (1) space will be reserved for handicap parking. Although the project will provide parking for residents, the project site is not large enough to accommodate guest parking. Guest parking will be available through on-street parking in the area, mainly on nearby Market Street.

2. **Wastewater**

   a. **Existing Conditions**

   Wastewater from the Wailuku-Kahului region is treated at the Wailuku-Kahului Wastewater Reclamation Facility (WKWWRF). The WKWWRF also receives flow from Kuau, Paia, Skill Village, and Spreckelsville. Currently, the WKWWRF has a design capacity of 7.9 MGD and average dry weather flow of 4.9 MGD as of March 2010. According to the County
Wastewater Reclamation Division, the total allocation, including projects already permitted, is 6.95 MGD. Effluent disposal from the WKWWRF is via eight (8) gravity injection wells. Solids from the WKWWRF are treated, processed and digested, dewatered and then composted at the Central Maui Landfill. There are 15 major wastewater pump stations which are part of the WKWWRF system. Refer Appendix “B”.

There is an existing 6-inch sewerline on Lewa Place to the west of the property which gravity flows towards Market Street and eventually to the WKWWRF. There is an existing sewer service lateral near the northwest corner of the property connecting to the 6-inch line. Refer to Appendix “B”.

b. Potential Impacts and Proposed Mitigation Measures

It is estimated the proposed project will generate approximately 10,200 gallons per day (gpd) of wastewater. The project will connect to the existing sewer lateral. The existing lateral and main line servicing the property is adequate to accommodate the proposed project.

Further, according to the County of Maui Wastewater Reclamation Division, the WKWWRF sewer assessment fee for multi-family projects is $1,165.35 per unit. The applicant will work with the County to comply with the assessment requirement prior to building permit and initiation of construction. Refer to Appendix “B”.

3. Water

a. Existing Conditions

Domestic water for the Wailuku-Kahului region is provided by the Department of Water Supply’s (DWS) Central Maui System. Water for the Central Maui System is provided by wells in Mokuhaau, Iao Valley, and Upper Waiehu. These well sources draw water from the basal lens referred to as the Iao Aquifer, which has an estimated sustainable yield of 20 million gallons per day (MGD).
Domestic water and fire protection is being provided by the County’s water system. The property is currently serviced by an existing ¾-inch water meter which is connected to an existing 8-inch waterline along Kahawai Street. There is an existing fire hydrant fronting the adjacent parcel approximately 40 feet away.

Domestic water and fire flow for this area are provided by the 3.0 million gallons (MG) Mokuhau tank and wells in Happy Valley at approximately elevation 360 feet mean sea level (msl). Refer to Appendix “B”.

b. Potential Impacts and Proposed Mitigation Measures

It is estimated that the average daily demand for the project is approximately 8,960 gpd. Fire flow demand for the project is 2,000 gallons per minute (gpm) for a two (2) hour duration and fire hydrants with a maximum spacing of 250 feet.

The existing 8-inch waterline along Kahawai Street and fire hydrant are adequate to meet fire flow requirements for the project. The existing ¾-inch meter will be replaced with a 1-1/2 inch meter which will be requested during the building permit process. A new reduced pressure backflow preventer will be installed. The Department of Water Supply (DWS) cannot currently guarantee any additional water for the property. Refer to Appendix “B”.

Pursuant to Chapter 14.12 Water Availability, MCC, prior to issuance of building permits, projects are required to identify a long-term water source for the project. However, residential workforce housing units pursuant to Chapter 2.96, MCC, are exempt from this requirement.

The proposed project will install low-flow water fixtures and utilize drought tolerant landscaping and installation of automated irrigation systems that prevent over watering, as much as possible, as water conservation measures.
As recommended by the DWS the following BMPs will be implemented:

1. Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the water.

2. Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work.

3. Retain ground cover until the last possible date.

4. Stabilize denuded areas by sodding or planting as soon as possible. Replanting should include soil amendments and temporary irrigation. Use high seeding rates to ensure rapid stand establishment.

5. Avoid fertilizers and biocides, or apply only during periods of low rainfall to minimize chemical run-off.

6. Keep run-off on site.

4. Drainage

a. Existing Conditions

Currently runoff from the project site sheet flows in the south to north direction towards the rear of the property and is generally contained by the existing boundary walls. It is estimated that the existing 50-year, 1-hour runoff from the project site is 0.31 cubic feet per second (cfs) and 261 cubic feet (cf) of runoff volume. A portion of the existing runoff is from an existing rock headwall and inlet at the southwest corner of the property which intercepts existing surface runoff from Kahawai Street. Refer to Appendix “B”.

b. Potential Impacts and Proposed Mitigation Measures

Post-development runoff is estimated to be 1.17 cfs and 629 cf of runoff volume, which is an increase of 0.86 cfs and 368 cf of runoff volume. The project site will be graded to maintain the existing runoff pattern with a majority of the runoff sheet flowing around the proposed building to the
rear of the property.

All onsite runoff will be collected by catch basins located within the interior parking and landscape areas and conveyed to an onsite subsurface drainage system, which will be located beneath the paved parking. The subsurface drainage system will have a storage capacity of 730 cf and consist of a perforated drainline embedded in crushed rock which will be wrapped with a layer of filter fabric. Surface runoff entering the perforated pipe will be allowed to infiltrate into the ground.

The proposed drainage system is expected to accommodate 100 percent of the pre- and post-development runoff from the property. During construction, previously stated BMPs are proposed to provide erosion control and minimize impacts on the environment. As such, the proposed project is not expected to have an adverse drainage impact on adjacent and downstream properties. Refer to Appendix “B”.

5. **Electrical, Telephone, and Cable Television Services**

a. **Existing Conditions**

There are overhead utility lines along North Market Street and Kahawai Street in the vicinity of the project site.

b. **Potential Impacts and Proposed Mitigation Measures**

Electrical, telephone, and cable television services for the project area will be coordinated with Maui Electric Company, Hawaiian Telcom, and Oceanic Time Warner Cable, respectively. It is anticipated that service capacity will be available, as required. Services to the condominiums will be installed from the existing overhead facilities. The proposed development will not have an adverse impact on service providers.

E. **CUMULATIVE AND SECONDARY IMPACTS**

The proposed project is an urban infill development limited in size and scope providing 16 affordable units for sale. The project does not involve a commitment to larger actions, nor
will it produce secondary impacts. The proposed project is not anticipated to pose significant impacts to the physical environment, socio-economic conditions, or public services, facilities, or infrastructure. The proposed project is anticipated to service existing residents and is not considered a direct population generator. In sum, the proposed action is not anticipated to have significant adverse cumulative or secondary impacts.
III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS
III. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

This section discusses the relationship between the proposed Kahawai Condominiums and State and County land use plans, policies, and controls for the Central Maui region.

A. STATE LAND USE DISTRICTS

Pursuant to Chapter 205, Hawaii Revised Statutes, all lands in the State have been placed into one (1) of four (4) major land use districts by the State Land Use Commission. These land use districts are designated "Urban", "Rural", "Agricultural", and "Conservation". The project site is located within the "Urban" district. The proposed project is a permitted use within the "Urban" district. See Figure 8.

B. CHAPTER 226, HRS, HAWAII STATE PLAN

Chapter 226, HRS, also known as the Hawaii State Plan, is a long-range comprehensive plan which serves as a guide for the future long-term development of the State by identifying goals, objectives, policies, and priorities, as well as implementation mechanisms. The proposed Kahawai Condominiums is in concert with the following goals of the Hawaii State Plan:

- *A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawaii's present and future generations.*

- *Physical, social and economic well-being for individuals and families in Hawaii that nourishes a sense of community responsibility, of caring and of participation in community life.*

1. Objectives and Policies of the Hawaii State Plan

The proposed project is in conformance with the following objectives and policies of the Hawaii State Plan:
**Figure 8** Proposed Habitat for Humanity Kahawai Condominiums
State Land Use District Map

Source: County of Maui, Planning Department, 2010
State Land Use Commission, 2010

Prepared for: Habitat for Humanity Maui, Inc.
Chapter 226-5, HRS, Objectives and Policies for Population

226-5(a), HRS: It shall be the objective in planning for the State’s population to guide population growth to be consistent with the achievement of physical, economic, and social objectives contained in this chapter.

226-5(b)(1), HRS: Manage population growth statewide in a manner that provides increased opportunities for Hawaii’s people to pursue their physical, social and economic aspirations while recognizing the unique needs of each county.

226-5(b)(3), HRS: Promote increased opportunities for Hawaii’s people to pursue their socio-economic aspirations throughout the islands.

226-6, HRS, Objectives and Policies for the Economy - in General

226-6(b)(6), HRS: Strive to achieve a level of construction activity responsive to, and consistent with, State growth objectives.

226-11, HRS, Objectives and Policies for the Physical Environment - Land-based, Shoreline and Marine Resources

226-11(b)(3), HRS: Take into account the physical attributes of areas when planning and designing activities and facilities.

226-11(b)(8), HRS: Pursue compatible relationships among activities, facilities and natural resources.

226-13, HRS, Objectives and Policies for the Physical Environment - Land, Air and Water Quality

226-13(b)(2), HRS: Promote the proper management of Hawaii’s land and water resources.

226-13(b)(6), HRS: Encourage design and construction practices that enhance the physical qualities of Hawaii’s communities.

226-13(b)(7), HRS: Encourage urban developments in close proximity to existing services and facilities.

226-19 Objectives and Policies for Socio-Cultural Advancement - Housing

226-19(a)(1), HRS: Greater opportunities for Hawaii’s people to secure reasonably priced, safe, sanitary, and livable homes, located in suitable environments that satisfactorily accommodate the needs and desires of families and individuals, through
collaboration and cooperation between government and nonprofit and for-profit developers to ensure that more affordable housing is made available to very low-, low-, and moderate-income segments of Hawaii's population.

\textbf{226-19(a)(2), HRS:} The orderly development of residential areas sensitive to community needs and other land uses.

\textbf{226-19(b)(1), HRS:} Effectively accommodate the housing needs of Hawaii’s people.

\textbf{226-19(b)(2), HRS:} Stimulate and promote feasible approaches that increase housing choices for low-income, moderate-income, and gap-group households.

\textbf{226-19(b)(3), HRS:} Increase homeownership, rental opportunities and choices in terms of quality, location, cost, densities, style and size of housing.

\textbf{226-19(b)(5), HRS:} Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas.

\textbf{226-19(b)(6), HRS:} Facilitate the use of available vacant, developable, and underutilized urban lands for housing.

\textbf{226-19(b)(7), HRS:} Foster a variety of lifestyles traditional to Hawaii through the design and maintenance of neighborhoods that reflect the culture and values of the community.

2. \textbf{Priority Guidelines of the Hawaii State Plan}

The proposed action is in keeping with the following priority guidelines of the Hawaii State Plan.

\textbf{Chapter 226-103, HRS, Economic Priority Guidelines:}

\textbf{226-103(1), HRS:} Seek a variety of means to increase the availability of investment capital for new and expanding enterprises.

A. \textbf{Encourage investments which:}

(i) Reflect long-term commitments to the State;

(ii) Rely on economic linkages within the local economy;

(iii) Diversify the economy;

(iv) Reinvest in the local economy;
(v) Are sensitive to community needs and priorities; and
(vi) Demonstrate a commitment to management opportunities to Hawaii residents.

Chapter 226-104, HRS, Population Growth and Land Resources Priority Guidelines

226-104(a)(1), HRS: Encourage planning and resource management to ensure that population growth rates throughout the State are consistent with available and planned resource capacities and reflect the needs and desires of Hawaii’s people.

226-104(b)(1), HRS: Encourage urban growth primarily to existing urban areas where adequate public facilities are already available or can be provided with reasonable public expenditures and away from areas where other important benefits are present, such as protection of important agricultural land or preservation of lifestyles.

226-104(b)(12), HRS: Utilize Hawaii’s limited land resources wisely, providing adequate land to accommodate projected population and economic growth needs while ensuring the protection of the environment and the availability of the shoreline conservation lands, and other limited resources for future generations.

Chapter 226-106, HRS, Affordable Housing Priority Guidelines

226-106(2) HRS: Encourage the use of alternative construction and development methods as a means of reducing production costs.

226-106(5) HRS: Encourage continued support for government or private housing programs that provide low interest mortgages to Hawaii’s people for the purchase of initial owner-occupied housing.

226-106(8), HRS: Give higher priority to the provision of quality housing that is affordable for Hawaii’s residents and less priority to development of housing intended primarily for individuals outside of Hawaii.

C. STATE FUNCTIONAL PLANS

The State Functional Plans implement the Hawaii State Plan by identifying needs, problems, and issues, and by recommending policies and priority actions which address the identified areas of concern. The proposed project is consistent with the following State Functional Plan:
1. **State Housing Functional Plan**

   **Comment:** The 16 condominium units provided by the proposed project will help to address a critical community need for affordable housing.

**D. MAUI COUNTY GENERAL PLAN**

As indicated by the Maui County Charter, the purpose of the general plan shall be to:

...indicate desired population and physical development patterns for each island and region within the county; shall address the unique problems and needs of each island and region; shall explain opportunities and the social, economic, and environmental consequences related to potential developments; and shall set forth the desired sequence, patterns and characteristics of future developments. The general plan shall identify objectives to be achieved, and priorities, policies, and implementing actions to be pursued with respect to population density; land use maps, land use regulations, transportation systems, public and community facility locations, water and sewage systems, visitor destinations, urban design, and other matters related to development.

Chapter 2.80B of the Maui County Code, relating to the General Plan and Community Plans, implements the foregoing Charter provision through enabling legislation which calls for a Countywide Policy Plan and a Maui Island Plan (MIP). The Countywide Policy Plan was adopted as Ordinance No. 3732 on March 24, 2010. The MIP is currently in the process of review and formulation by the Maui County Council.

With regard to the Countywide Policy Plan, Section 2.80B.030 of the Maui County Code states the following.

*The countywide policy plan shall provide broad policies and objectives which portray the desired direction of the County's future. The countywide policy plan shall include:*

*1. A vision for the County;*

*2. A statement of core themes or principles for the County; and*

*3. A list of countywide objectives and policies for population, land use, the environment, the economy, and housing.*
Core principles set forth in the Countywide Policy Plan are listed as follows:

1. Excellence in the stewardship of the natural environment and cultural resources;
2. Compassion for and understanding of others;
3. Respect for diversity;
4. Engagement and empowerment of Maui County residents;
5. Honor for all cultural traditions and histories;
6. Consideration of the contributions of past generations as well as the needs of future generations;
7. Commitment to self-sufficiency;
8. Wisdom and balance in decision making;
9. Thoughtful, island appropriate innovation; and
10. Nurturance of the health and well-being of our families and our communities.

Congruent with these core principles, the Countywide Policy Plan identifies goals, objectives, policies and implementing actions for pertinent functional planning categories, which are identified as follows:

1. Natural environment
2. Local cultures and traditions
3. Education
4. Social and healthcare services
5. Housing opportunities for residents
6. Local economy
7. Parks and public facilities
8. Transportation options
9. Physical infrastructure

10. Sustainable land use and growth management

11. Good governance

With respect to the proposed Kahawai Condominiums, the following goals, objectives, policies and implementing actions are illustrative of the project's compliance with the Countywide Policy Plan.

**EXPAND HOUSING OPPORTUNITIES FOR RESIDENTS**

**Goal:**

*Quality, island-appropriate housing will be available to all residents.*

**Objective:**

*Reduce the affordable housing deficit for residents.*

**Policies:**

- *Ensure that an adequate and permanent supply of affordable housing, both new and existing units, is made available for purchase or rental to our resident and/or workforce population, with special emphasis on providing housing for low- to moderate-income families, and ensure that all affordable housing remains affordable in perpetuity.*

- *Seek innovative ways to lower housing costs without compromising the quality of our island lifestyle.*

**Objective:**

*Increase the mix of housing types in towns and neighborhoods to promote sustainable land use planning, expand consumer choice, and protect the County's rural and small town character.*

**Policies:**

- *Encourage a mix of social, economic, and age groups within neighborhoods.*
• Promote infill housing in urban areas at scales that capitalize on existing infrastructure, lower development costs, and are consistent with existing or desired patterns of development.

• Develop workforce housing in proximity to job centers and transit facilities.

Objective:

Increase and maintain the affordable housing inventory.

Policies:

• Recognize housing as a basic human need, and work to fulfill that need.

• Develop public-private and nonprofit partnerships that facilitate the construction of quality affordable housing.

• Minimize the intrusion of housing on prime, productive, and potentially productive agricultural lands and regionally valuable agricultural lands.

• Encourage long-term residential use of existing and future housing to meet residential needs.

Objective:

Expand access to education related to housing options, homeownership, financing, and residential construction.

Policies:

• Expand access to information about opportunities for homeownership and self-help housing.

• Improve home buyers' education on all aspects of homeownership.

IMPROVE PHYSICAL INFRASTRUCTURE

Goal:

Maui County's physical infrastructure will be maintained in optimum condition and will provide for and effectively serve the needs of the County through clean and
sustainable technologies.

Objective:

Direct growth in a way that makes efficient use of existing infrastructure and to areas where there is available infrastructure capacity.

Policy:

• Promote land use patterns that can be provided with infrastructure and public facilities in a cost-effective manner.

PROMOTE SUSTAINABLE LAND USE AND GROWTH MANAGEMENT

Goal:

Community character, lifestyles, economies, and natural assets will be preserved by managing growth and using land in a sustainable manner.

Objective:

Improve land use management and implement a directed-growth strategy.

Policies:

• Encourage redevelopment and infill in existing communities on lands intended for urban use to protect productive farm land and open-space resources.

• Direct new development in and around communities with existing infrastructure and service capacity, and protect natural, scenic, shoreline, and cultural resources.

E. WAILUKU-KAHULUI COMMUNITY PLAN

The subject parcel is located in the Wailuku-Kahului Community Plan region which is one (1) of nine (9) Community Plan regions established in the County of Maui. Planning for each region is guided by the respective Community Plans, which are designed to implement the Maui County General Plan. Each Community Plan contains recommendations and standards that guide the sequencing, patterns, and characteristics of future development in the region.
The land use map for the Wailuku-Kahului Community Plan designates the property for "Business/Commercial (B)" use. See Figure 9. The Business/Commercial District allows for a mixture of retail, offices, residential, entertainment enterprises, and related accessory uses. The proposed project is a permitted use within the Business/Commercial District.

The Wailuku-Kahului Community Plan identified the lack of affordable housing as one of the area's major problems. As the cost of residential housing has dramatically increased in the past 10 to 15 years, the Community Plan recognizes that providing affordable housing opportunities for residents - specifically those earning below 80 percent of median income - need to be aggressively pursued.

The proposed action is in keeping with the following Wailuku-Kahului Community Plan goals, objectives, policies, and implementing actions:

**Goal - Housing**

*A sufficient supply and choice of attractive, sanitary and affordable housing accommodations for the broad cross section of residents, including the elderly.*

**Objectives and Policies**

- *Provide sufficient land areas for new residential growth which relax constraints on the housing market and afford variety in type, price and location of units. Opportunities for the provision of housing are presently constrained by a lack of expansion areas. This condition should be relieved by a choice of housing in a variety of locations, both rural and urban in character.*

- *Seek alternative residential growth areas within the planning region, with high priority given to the Wailuku and Kahului areas. This action should recognize that crucial issues of maintaining important agricultural lands, achieving efficient patterns of growth and providing adequate housing supply and choice of price and location must be addressed and resolved.*

**Implementing Actions**

- *Develop a comprehensive housing strategy for low and moderate income groups involving government and private industry cooperation that provides an adequate supply of housing for the various strata of income. This approach would combine the resources of Federal, State, County and private enterprise to improve the availability of rental and ownership housing*
Figure 9

Proposed Habitat for Humanity
Kahawai Condominiums
Wailuku-Kahului Community Plan Map

Prepared for: Habitat for Humanity Maui, Inc.
targeted to various need groups. Antispeculation and specification of a percentage of low and moderate income units in major projects are tools which should be considered as part of an overall housing program.

**Goal - Urban Design**

An attractive and functionally integrated urban environment that enhances neighborhood character, promotes quality design, defines a unified landscape planting and beautification theme along major public roads and highways, watercourses and at major public facilities, and recognizes the historic importance and traditions of the region.

**Objectives and Policies for the Wailuku - Kahului Region in General**

- Incorporate drought tolerant plant species and xeriscaping in future landscape planting.

**Objectives and Policies for Wailuku Town**

- Maintain the existing character of historic Wailuku Town.

**F. WAILUKU REDEVELOPMENT PLAN**

The project site is located within the Wailuku Redevelopment Area. The Wailuku Redevelopment Area Plan, adopted in 2000, provides the vision, direction, and plan of action for the revitalization of the area. Within the Wailuku Redevelopment Area, the site is designated within the “Commercial Mixed-Use” District, which permits multi-family dwelling units as a principal permitted use. The proposed Kahawai Condominiums is consistent with the following objectives of the Wailuku Redevelopment Area Plan:

**Land Use**

- Focus on infill development with an emphasis on adaptive reuse, development of vacant sites and redevelopment of dilapidated structures.

- Provide in-town housing that is scaled to the surrounding environment.

**Urban Design**

- Maintain the small, compact, pedestrian-oriented character by requiring new building construction and alterations to existing buildings to be compatible in scale and design character with surrounding developments.
• *Assure that new developments respect the area's topography and climate.*

G. **MAUI COUNTY ZONING**

Pursuant to the Wailuku Redevelopment Area Zoning and Development Code (WRAZD), as adopted by the Maui Redevelopment Agency, the property is zoned “Commercial Mixed-Use District” for which multi-family dwelling units are identified as a principal permitted use.

The development standards, as set forth in Section 30.04, WRAZD, for the subject property are:

<table>
<thead>
<tr>
<th>WRAZD Code Standard</th>
<th>Allowed/Required</th>
<th>Provided by Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Lot Area</td>
<td>4,500 sq.ft.</td>
<td>11,187 sq.ft.</td>
</tr>
<tr>
<td>Minimum Lot Width</td>
<td>45 feet</td>
<td>83.10 feet</td>
</tr>
<tr>
<td>Front, Rear, and Side Yard Setbacks</td>
<td>6 feet</td>
<td>6 feet</td>
</tr>
<tr>
<td>Maximum Height</td>
<td>3 stories/45 feet</td>
<td>36 feet</td>
</tr>
<tr>
<td>Parking</td>
<td>1 parking space/bedroom</td>
<td>20 parking spaces</td>
</tr>
</tbody>
</table>

Although the project site is not specifically delineated in the WRAZD Code with regards to height standards, the Department of Planning’s analysis determined the property would have a 45 foot height limit by applying the pattern used to determine height allowances when the WRAZD Code was created (County Department of Planning, 2010). The project’s height measures 36 feet, which is within the 45 foot height limit.

In accordance with the WRAZD, the proposed project is required to obtain approval from the Maui Redevelopment Agency. On February 24, 2012, the Maui Redevelopment Agency reviewed and approved the plans for the proposed project. On August 19, 2010, the Maui Redevelopment Agency approved three (3) requested variances that granted waivers from improvements to Kahawai Street, Lewa Place, and the use of wood windows, thereby, allowing the proposed project to move forward.

H. **HAWAII COASTAL ZONE MANAGEMENT PROGRAM**

The Hawaii Coastal Zone Management Program (HCZMP), as formalized in Chapter 205A, HRS, establishes objectives and policies for the preservation, protection, and restoration of
natural resources of Hawaii's coastal zone. The subject property is not within the County of Maui's Special Management Area. However, the applicability of coastal zone management considerations has been reviewed and assessed.

1. **Recreational Resources**

**Objective:**

*Provide coastal recreational opportunities accessible to the public.*

**Policies:**

a. Improve coordination and funding of coastal recreational 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 replacement 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 requiring 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 uses of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety 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; and

viii. Encouraging 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, and county authorities; and crediting such dedication against the requirements of Section 46-6, HRS.

Response: The project site is located inland, and to the west of the coastline approximately 1.75 miles from coastline. As such, the proposed action is not expected to impact coastal recreational opportunities or affect existing public access to the shoreline.

2. **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 resources.

Response: The proposed project is not anticipated to have an adverse effect on historic or cultural resources. An archaeological assessment survey was conducted for the proposed project which indicated the majority of the property has been previously impacted during land disturbances associated with previous development. Precautionary monitoring is recommended. Should any archaeological remains be encountered during construction, work in the vicinity will cease and the SHPD contacted to establish appropriate mitigation measures in accordance with Chapter 6E, HRS.
3. **Scenic and Open Space Resources**

**Objectives:**

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

d. Encourage those developments that are not coastal dependent to locate in inland areas.

**Response:** As indicated previously, the project is not located on or near the shoreline or within a coastal area. As such, the proposed project will not adversely impact coastal scenic and open space resources.

4. **Coastal Ecosystems**

**Objective:**

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

**Policies:**

a. Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

b. Improve the technical basis for natural resource management;
c. Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

d. 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

e. Promote water quantity and quality planning and management practices that reflect the tolerance of fresh water and marine ecosystems and maintain and enhance water quality through the development and implementation of point and non-point source water pollution control measures.

Response: The proposed action is not expected to adversely impact coastal ecosystems as the project site is approximately 1.75 miles away from the coast. Nonetheless, runoff will be mitigated through onsite drainage improvements. Drainage system improvements will be designed in accordance with applicable regulatory standards to ensure that there is no adverse effect on downstream properties.

In addition, appropriate erosion control measures and BMPs will be implemented to minimize the effects of stormwater runoff during construction of the project and to ensure that coastal ecosystems are not adversely impacted.

5. 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; and
c. Direct the location and expansion of coastal dependent developments to areas presently designated and used for such developments 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 effects are minimized; and

iii. The development is important to the State's economy.

**Response:** The proposed project will be a positive contribution to the local economy through the generation of affordable housing for Maui's residents and the creation of construction-related job opportunities. The proposed project is not contradictory to the objective and policies for economic uses.

6. **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 nonpoint source pollution hazards;

b. Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and nonpoint pollution hazards;

c. Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

d. Prevent coastal flooding from inland projects.

**Response:** The project site currently falls within Zone X (shaded), an area of minimal flooding. Drainage improvements will be designed in accordance with the Drainage Standards of the County of Maui to ensure that the project will not adversely affect downstream properties from the effects of flooding and erosion.
Adverse impacts to hazard-sensitive areas are not anticipated as the project site is not located within a flood hazard district and is not located near the shoreline.

As indicated previously, FEMA, DLNR, and County of Maui are currently in the process of updating the FIRMs for Maui County to incorporate new data regarding potential flooding resulting from hurricane events and levee failure. New preliminary FIRMs depict a change for the project site to Zones AE and AEF. Flood Zones AE and AEF are considered Special Flood Hazard Areas, which are described as areas subject to flooding by the one (1) percent annual chance flood. Although these maps are not effective with regards to regulatory compliance, the proposed project has been designed to accommodate changes that may be required should the preliminary maps be finalized. The ground floor level of the proposed structure is reserved exclusively for parking, so the condominium units will not be affected in a flood event.

7. Managing Development

Objective:

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

Policies:

a. Use, implement, and enforce existing law 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 and review process.

Response: Early consultation and public review are required as part of the environmental assessment process. Applicable State and County requirements will be adhered to in the design and construction of the proposed project.
8. Public Participation

Objective:

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

Policies:

a. Promote public involvement in coastal zone management processes;

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 issues, developments, and government activities; and

c. Organize workshops, policy dialogues, and site-specific mediations to respond to coastal issues and conflicts.

Response: Opportunities for agency and public review are provided as part of the notification review and comment process required for the environmental assessment process. On August 19, 2010, a public hearing was held by the Maui Redevelopment Agency (MRA) regarding variances for the proposed project. The project plans were reviewed and approved by the MRA on February 24, 2012.

In addition, a community meeting was held on December 7, 2010 at Living Way Church in Happy Valley. Fifteen (15) community members attended the meeting. A copy of the meeting summary is provided in Chapter X.

9. Beach Protection

Objective:

Protect beaches for public use and recreation.

Policies:

a. Locate new structures inland from the shoreline setback to conserve open space, minimize interference with natural shoreline processes, and 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.

Response: The project site is located upland, away from the shoreline approximately 1.75 miles away and is not anticipated to impact shoreline processes.

10. Marine Resources

Objective:

Promote the protection, use, and development of marine and coastal resources to assure their sustainability.

Policies:

a. Ensure that the use and development of marine and coastal resources are ecologically and environmentally sound and economically beneficial;

b. Coordinate the management of marine and coastal resources and activities to improve effectiveness and efficiency;

c. Assert and articulate the interests of the State as a partner with federal agencies in the sound management of ocean resources within the United States exclusive economic zone;

d. Promote research, study, and understanding of ocean processes, marine life, and other ocean resources in order to acquire and inventory information necessary to understand how ocean development activities relate to and impact upon ocean and coastal resources; and

e. Encourage research and development of new, innovative technologies for exploring, using, or protecting marine and coastal resources.

Response: As previously stated, the project is located inland, away from the ocean and is, therefore, not anticipated to have an impact on marine or coastal resources.
In addition to the foregoing objectives and policies, HRS Section 205A-30.5 Prohibitions, provides specifications for the limitation of lighting in coastal shoreline areas in relation to the granting of SMA permits:

_No special management area use permit or special management area minor permit shall be granted for structures that allow artificial light from floodlights, uplights, or spotlights used for decorative or aesthetic purposes when the light:_

1. Directly illuminates the shoreline and ocean waters; or

2. Is directed to travel across property boundaries toward the shoreline and ocean waters.

(b) Subsection (a) shall not apply to special management area use permits for structures with:

2. Artificial lighting provided by a government agency or its authorized users for government operations, security, public safety, or navigational needs; provided that a government agency or its authorized users shall make reasonable efforts to properly position or shield lights to minimize adverse impacts.

**Response:** The proposed project lighting design will specify the shielding of all lights and directional down lighting. The design considerations should mitigate light pollution and prevent lighting from traveling across property boundaries. As previously noted, the proposed project is not located adjacent to the shoreline.
IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED
IV. SUMMARY OF ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Assessment of construction-related impacts, noise and air quality impacts, and potential impacts on the physical and socio-economic environment, as well as an archaeological inventory survey were carried out as part of the environmental assessment documentation process. The proposed development will have limited, unavoidable construction-related impact on the environment, as described in Chapter II.

In the short term, construction associated with the proposed project will have a temporary impact on air quality from dust generation and discharge of exhaust from construction equipment during ground altering activities and site grading. Appropriate BMPs will be incorporated to mitigate adverse construction-related impacts, including but not limited to, watering of exposed surfaces and regular maintenance of construction equipment.

Construction of Kahawai Condominiums will also generate unavoidable short-term noise impacts. The use of properly maintained construction equipment will mitigate noise impacts caused by equipment. The incorporation of State Department of Health construction noise limits and curfew times are measures to mitigate noise impacts caused by construction activities.
V. ALTERNATIVES TO THE PROPOSED ACTION
V. ALTERNATIVES TO THE PROPOSED ACTION

A. PREFERRED ALTERNATIVE

The proposed development is an infill multi-family affordable housing project in the existing Happy Valley community. The project is consistent with the surrounding residential and urban type land uses. As an urban infill development, the proposed project will be served by existing infrastructure and will not extend County service areas.

The preferred alternative will provide much needed workforce housing in a location that is available and underused, and in proximity to similar land uses.

B. NO ACTION ALTERNATIVE

The “no action” alternative does not address the increasing need for affordable housing on Maui. As mentioned, the proposed project will be affordable to families earning at or below 80 percent of AMI. The site presents a beneficial opportunity to develop affordable housing surrounded by similar residential uses. If the “no action” alternative were implemented, the project site would continue to be underutilized as a vacant lot, surrounded by urban uses.

C. SINGLE-FAMILY RESIDENCE

Developing the property as a single-family residence, which is consistent with its former use, was considered. To develop the property as a single-family residence in accordance with the WRAZ&D Code and MCC, one (1) dwelling unit (i.e., no ohana unit) is permitted. This would provide housing for only one (1) family. Given the higher property costs in Maui relative to other areas of the nation, it is important for Habitat to best utilize the potential of the property. The underlying zoning designation for this property allows for multi-family uses, which enables Habitat to provide affordable housing to more than one family. As indicated earlier, the preferred alternative will provide housing for 16 families. If the single-family residence alternative were implemented, there would be significantly less affordable units available to families.
VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES
VI. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The proposed action will not entail a substantial commitment of public services or facilities. As an urban infill development, the Kahawai Condominiums will be served by existing infrastructure and will not extend County service areas. Development of the proposed project will involve a commitment of energy, labor, fiscal, and material resources. The use of these resources, when weighed against the expected benefit to be derived from the project, is not considered an adverse commitment.
VII. SIGNIFICANCE CRITERIA ASSESSMENT
VII. SIGNIFICANCE CRITERIA ASSESSMENT

The "Significance Criteria", defined in Section 12 of the Chapter 11-200 of the Hawaii Administrative Rules, were reviewed and analyzed to determine whether the proposed project will have significant impacts to the environment. The following criteria and analyses are provided.

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

   There are no known rare, threatened, or endangered species of flora, fauna, avifauna, or important habitats located within the project site. As mentioned previously, an archaeological assessment study for the project site concluded that the majority of the subject property has been previously impacted during prior land disturbances. No further archaeological work is recommended, however, precautionary monitoring may be warranted. Should archaeological features, cultural artifacts, or human burials be located during construction activities, work in the immediate area of the find shall be promptly halted and the find protected from further disturbance. The State Historic Preservation Division (SHPD) will be immediately contacted to determine the significance of the find and establish appropriate mitigative measures, as necessary.

2. **Curtails the range of beneficial uses of the environment.**

   The proposed action is an infill development, and the commitment of land resources will not curtail the range of beneficial uses of the environment. The proposed use of the property for affordable housing is compatible with surrounding urban uses.

3. **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 action does not conflict with the policies and guidelines of Chapter 344, HRS.
4. **Substantially affects the economic welfare, social welfare, and cultural practices of the community or State.**

The proposed action will have a beneficial effect on the local economy during construction. In the long term, the proposed project will support the local economy through the contribution of salaries, wages, and benefits, as well as through the purchases of goods and services from local merchants and service providers. The project will provide affordable housing to families earning at or below 80 percent of the average median income in Maui County; as such, the proposed project will be a social welfare benefit to the Central Maui area.

5. **Substantially affects public health.**

No adverse impact to public health or welfare is anticipated as a result of the proposed action.

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

The proposed Kahawai Condominiums’ 16 one- and two-bedroom units will provide permanent affordable housing in the Happy Valley neighborhood of Central Maui. However, the proposed project is not considered a direct population generator. Rather, the project is anticipated to service existing Maui residents. As an urban infill project, the Kahawai Condominiums will be served by existing infrastructure and will not extend County service areas.

The proposed project is designed to meet affordable housing needs for the island’s residents. The project is not anticipated to generate secondary impacts.

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

No substantial degradation of environmental quality resulting from the action is anticipated. Best Management Practices (BMPs) and appropriate erosion control measures will be utilized during the construction period. Drainage system improvements will be constructed in accordance with applicable regulatory design standards to ensure that surface runoff will not have an adverse effect on adjacent or downstream properties.

Any potential short-term impacts to air and noise quality during the construction
phase of the project, will be mitigated through employing BMPs. In the long term, the effects on air quality and ambient noise levels should be minimal.

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

   The proposed development is an infill project in an existing community and does not represent a commitment for larger actions. As a result, the project is not expected to result in cumulative impacts on the environment.

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

   No rare, threatened, or endangered species of flora, fauna, avifauna, or important habitats were identified on the property. The project will not substantially affect rare, threatened, or endangered species, or its habitat. The U. S. Fish and Wildlife Service commented that there are no documented observations pertaining to the occurrence of listed species or designated critical habitat within the vicinity of the proposed project. No further action pursuant to the Endangered Species Act is necessary.

10. **Detrimentally affects air or water quality or ambient noise levels.**

    Construction activities may pose a temporary short-term impact on air and noise quality; however, impacts will be mitigated through the use of BMPs. Dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions. Noise impacts will be mitigated by limiting construction to daylight work hours. Utilizing approved BMPs, significant impacts to water quality are not anticipated.

    In the long term, the proposed action is not anticipated to have a significant impact on air and water quality or ambient noise levels.

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

    According to the FEMA FIRMs currently in effect, the project site falls within Zone X, an area of minimal flooding. However, FEMA is currently in the process of updating the FIRMs for Maui County to incorporate new data regarding potential flooding resulting from hurricane events and levee failure. New preliminary FIRMs
depict a change for the project site to Zones AE and AEF. Flood Zones AE and AEF are considered Special Flood Hazard Areas, which are described as areas subject to flooding by the 1 percent annual chance flood. Although these maps are not effective with regards to regulatory compliance, the proposed project has been designed to accommodate changes that may be required should the preliminary maps be finalized. The ground floor level of the proposed structure is reserved exclusively for parking, so the liveable spaces of the condominium units will not be affected in a flood event. As such, flood events are not anticipated to adversely affect the project.

The project site is situated inland and is not anticipated to have any adverse impact upon coastal waters or resources, beaches, estuaries, or fresh water. The project site is located outside of the tsunami inundation zone. Drainage improvements will be designed to retain all runoff generated by the project. During construction, recommended BMPs will be implemented for erosion and sedimentation control to minimize potential impacts to water quality.

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

Iao Stream, in the vicinity of the proposed project, is identified as an exceptional scenic corridor in the Draft Maui Island Plan. The proposed development is surrounded by existing residential and commercial buildings and will not block established scenic vistas, viewplanes, or corridors. The project is located inland away from coastal and open space areas and will not substantially affect coastal scenic or open space resources.

13. **Requires substantial energy consumption.**

The proposed action will involve the short-term commitment of fuel for equipment, vehicles, and machinery during construction activities. However, this use is not anticipated to result in a substantial consumption of energy resources. In the long term, the project will create an additional demand for electricity. However, this demand will not be substantially or excessively more than the energy consumed by similar developments throughout the region.

In summary, the project site is situated in an existing urban community, in close proximity to services and commercial areas in the Wailuku region. This infill project will be served by existing infrastructure, and will not extend County service areas. The proposed development is not
anticipated to have a significant adverse impact on the physical environment. The site is suitable for
the development for multi-family housing and will help Maui County meet the housing needs of the
region. As such and in accordance with the significance criteria set forth in 11-200-12, HAR, a
finding of no significant impact (FONSI) is anticipated for the proposed project.
VIII. LIST OF PERMITS AND APPROVALS
VIII. LIST OF PERMITS AND APPROVALS

The following permits and approvals may be required prior to the implementation of the project:

**State of Hawaii, Department of Health**

1. Chapter 11-46, Community Noise Control, as applicable
2. Chapter 11-60.1-33, Fugitive Dust
3. National Pollution Discharge Elimination System (NPDES) Permit, as applicable

**County of Maui**

1. Construction permits (i.e. building and grading permits)
2. Maui Redevelopment Agency Design Review Approval
IX. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT, LETTERS RECEIVED, AND RESPONSES TO SUBSTANTIVE COMMENTS
IX. PARTIES CONSULTED DURING THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT, LETTERS RECEIVED, AND RESPONSES TO SUBSTANTIVE COMMENTS

1. Ranae Ganske-Cerizo, Soil Conservationist
   Natural Resources Conservation Service
   U.S. Department of Agriculture
   210 Imi Kala Street, Suite 209
   Wailuku, Hawaii 96793-2100

2. George Young
   Chief, Regulatory Branch
   U.S. Department of the Army
   U.S. Army Engineer District, Honolulu
   Regulatory Branch
   Building 230
   Fort Shafter, Hawaii 96858-5440

3. Gordon Furutani, Field Office Director
   U.S. Department of Housing and Urban Development
   500 Ala Moana Boulevard, Suite 3A
   Honolulu, Hawaii 96813-4918

4. Patrick Leonard
   Field Supervisor
   U.S. Fish and Wildlife Service
   300 Ala Moana Blvd., Rm. 3-122
   Box 50088
   Honolulu, Hawaii 96813

5. Russ K. Saito, State Comptroller
   Department of Accounting and General Services
   1151 Punchbowl Street, #426
   Honolulu, Hawaii 96813

6. Sandra Lee Kunimoto, Chair
   Department of Agriculture
   1428 South King Street
   Honolulu, Hawaii 96814-2512

7. Dan Davidson, Executive Director
   Hawaii Housing Finance and Development Corporation
   677 Queen Street
   Honolulu, Hawaii 96813

8. Theodore E. Liu, Director
   State of Hawaii
   Department of Business, Economic Development & Tourism
   P.O. Box 2359
   Honolulu, Hawaii 96804

9. Patricia Hamamoto, Superintendent
   State of Hawaii
   Department of Education
   P.O. Box 2360
   Honolulu, Hawaii 96804

10. Heidi Meeker
    Planning Section
    Office of Business Services
    Department of Education
    809 Eighth Avenue
    Honolulu, Hawaii 96816

11. Micah Kane, Chairman
    Department of Hawaiian Home Lands
    P.O. Box 1879
    Honolulu, Hawaii 96805

12. Chiyome Fukino, M.D., Director
    State of Hawaii
    Department of Health
    919 Ala Moana Blvd., Room 300
    Honolulu, Hawaii 96814
13. Alec Wong, P.E., Acting Chief
   **Clean Water Branch**
   State of Hawaii
   **Department of Health**
   919 Ala Moana Blvd., Room 300
   Honolulu, Hawaii 96814

14. Herbert Matsubayashi
   District Environmental Health Program Chief
   State of Hawaii
   **Department of Health**
   54 High Street
   Wailuku, Hawaii 96793

15. Laura Thielen, Chairperson
    State of Hawaii
    **Department of Land and Natural Resources**
    P. O. Box 621
    Honolulu, Hawaii 96809

16. Bryan Flower, Interim Administrator
    State of Hawaii
    **Department of Land and Natural Resources**
    **State Historic Preservation Division**
    601 Kamokila Blvd., Room 555
    Kapolei, Hawaii 96707

17. Hinano Rodrigues
    **Maui/Lanai Islands Burial Council**
    130 Mahalanai Street
    Wailuku, Hawaii 96793

18. Barry Fukunaga, Director
    State of Hawaii
    **Department of Transportation**
    869 Punchbowl Street
    Honolulu, Hawaii 96813

cc: Fred Cajigal

19. Katherine Kealoha, Director
    **Office Of Environmental Quality Control**
    235 S. Beretania Street, Suite 702
    Honolulu, Hawaii 96813

20. Clyde Namu'o
    **Office of Hawaiian Affairs**
    711 Kapiolani Boulevard, Suite 500
    Honolulu, Hawaii 96813

21. Mary Lou Kobayashi, Administrator
    State of Hawaii
    **Office of Planning**
    P.O. Box 2359
    Honolulu, Hawaii 96804

22. Rodney Maile, Interim Executive Officer
    State of Hawaii
    **State Land Use Commission**
    P.O. Box 2359
    Honolulu, Hawaii 96804

23. Neal Bal, Deputy Chief
    County of Maui
    **Department of Fire and Public Safety**
    200 Dairy Road
    Kahului, Hawaii 96732

24. Vanessa A. Medeiros, Director
    County of Maui
    **Department of Housing and Human Concerns**
    200 South High Street
    Wailuku, Hawaii 96793

25. Tamara Horcajo, Director
    County of Maui
    **Department of Parks and Recreation**
    700 Halia Nakoa Street, Unit 2
    Wailuku, Hawaii 96793

26. Jeffrey Hunt, Director
    County of Maui
    **Department of Planning**
    250 South High Street
    Wailuku, Hawaii 96793

27. Thomas Phillips, Chief
    County of Maui
    **Police Department**
    55 Mahalanai Street
    Wailuku, Hawaii 96793

28. Milton Arakawa, Director
    County of Maui
    **Department of Public Works**
    200 South High Street
    Wailuku, Hawaii 96793
29. Cheryl Okuma, Director
   County of Maui
   Department of Environmental Management
   One Main Plaza
   2200 Main Street, Suite 176
   Wailuku, Hawaii 96793

30. Donald Medeiros, Director
    County of Maui
    Department of Transportation
    200 South High Street
    Wailuku, Hawaii 96793

31. Jeffrey Eng, Director
    County of Maui
    Department of Water Supply
    200 South High Street
    Wailuku, Hawaii 96793

32. G. Riki Hokama, Council Chair
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

33. Danny Mateo, Council Vice Chair
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

34. Councilmember Michelle Anderson
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

35. Councilmember Gladys Baisa
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

36. Councilmember Jo Anne Johnson
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

37. Councilmember Bill Medeiros
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

38. Councilmember Michael J. Molina
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

39. Councilmember Joseph Pontanilla
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

40. Councilmember Mike Victorino
    Maui County Council
    200 South High Street
    Wailuku, Hawaii 96793

41. Hawaiian Telcom
    60 South Church Street
    Wailuku, Hawaii 96793

42. Neal Shinyama, Manager – Engineering
    Maui Electric Company, Ltd.
    P.O. Box 398
    Kahului, Hawaii 96733

43. Alu Like, Inc.
    1977 Kaohu Street
    Wailuku, Hawaii 96793
April 16, 2009

File No.: POH-2009-137

Rowena Dagdag-Andaya
Munekiyo & Hiraga, Inc.
305 High St., Suite 104
Wailuku, Hawai‘i 96793

Dear Ms. Dagdag-Andaya,

This letter is in response to your request dated April 7, 2009, for early consultation comments on the preparation of the Draft Environmental Assessment (DEA) for the Habitat Humanity Sponsored 16-Unit Wailuku Apartment Complex, located in TMK 234033002, Wailuku, Maui, Hawai‘i.

The U.S. Army Corps of Engineers (Corps) asserts jurisdiction over traditional navigable waters (TNWs) (e.g., Pacific Ocean), under Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 U.S.C. 403); wetlands adjacent to TNWs, non-navigable tributaries that have perennial flow or continuous seasonal flow, and wetlands directly abutting such tributaries. For other types of waters, including those that do not have relatively permanent flows, as well as any wetlands adjacent to such tributaries, we must determine jurisdiction on a case-by-case basis using a fact-specific analysis to assess the flow characteristics and functions of the tributary and its adjacent wetlands to determine if in combination they significantly affect the chemical, physical, and biological integrity of downstream navigable waters, particular emphasis being given to hydrological and ecological factors.

We recommend your DEA identify all streams (perennial, intermittent, or ephemeral) and wetlands on and in the immediate vicinity of the land parcel subject to development, characterize the hydrology and ecology of those features, and provide a description of all ground-disturbing activities associated with the project construction occurring on the project site. Please consider the aforementioned and that under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344), Department of Army (DA) authorization is required for activities that result in the discharge (placement) of dredge and/or fill material into waters of the U.S.

Thank you for the opportunity to comment. If you have any questions, please contact Ms. Meris Bantilan-Smith, of my Regulatory staff at 808-438-7701 (FAX: 808-438-4060) or by electronic mail at Meris.Bantilan-Smith@usace.army.mil. Please include File No. POH-2009-137 in any future correspondence regarding this project. Please be advised you can provide comments on your experience with the Corps' Honolulu District Regulatory Branch by accessing our web-based customer survey form at http://per2.nwp.usace.army.mil/survey.html.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch
George P. Young, P.E.
Chief, Regulatory Branch
Department of the Army
U.S. Army Corps of Engineers, Honolulu District
Fort Shafter, Hawaii 96858-5440

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui
Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui,
Hawaii, File No. POH-2009-137

Dear Mr. Young:

Thank you for your letter (File No. POH-2009-137), dated April 16, 2009,
providing early consultation comments on the subject project. On behalf of the applicant, Habitat for
Humanity Maui, Inc., we offer the following information in response to the comments
provided.

The Draft Environmental Assessment (EA) will identify and describe all streams and
wetlands in the vicinity of the project site. The Draft EA will also include a description of
any proposed ground-disturbing activities at the project site. We acknowledge that
Department of Army authorization is required for activities that result in the discharge of
dredge and/or fill material into waters of the United States.

We appreciate the input provided by your Department. A copy of your comment letter
will be included in the Draft EA for the proposed project. Should you have any
questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
    Stacy Otomo, Otomo Engineering, Inc.
April 24, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Subject: Early Consultation on the Habitat for Humanity
   Wailuku Apartment Complex, TMK:3-4-033:002

This is in response to your letter of April 7, 2009, requesting early comments on the plans for a
16-unit apartment building in Wailuku. The 2007 Legislature passed a bill establishing school
impact fees. The bill became Act 245 and is in the process of being implemented. Under this
new law, it is possible the Habitat for Humanity Apartments will be required to pay an impact
fee.

The Board of Education is expected to identify and adopt school impact districts for areas
requiring new or expanded facilities in the future. We are presently operating under the interim
language of the bill. Developers of all residential units within school impact districts will be
required to have a written agreement with the Department of Education prior to the issuance of a
building permit.

We currently do not know the amount of the impact fee generated for this project. If the
developers are interested in obtaining an early agreement or if you have any questions, please
contact Heidi Meeker of the Facilities Development Branch at (808) 377-8301.

Sincerely,

Diane Y. Kashiwar
Public Works Administrator

DYK:jmb

c: Bruce Anderson, CAS, Baldwin/Kekaulike/Maui Complex Areas

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER
Duane Y. Kashiwai  
Public Works Administrator  
Department of Education  
State of Hawaii  
P.O. Box 2360  
Honolulu, Hawaii 96804

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Kashiwai:

Thank you for your letter, dated April 24, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

We acknowledge that following the issuance of your letter, the Board of Education approved the designation of a Central Maui school impact district on November 18, 2010. We further acknowledge that as a residential developer, the applicant will be required to have a written agreement with the Department of Education prior to the issuance of a building permit. The applicant will coordinate with the Department’s Facilities Development Branch to comply with the requirements of the Central Maui school impact district.
We appreciate the input provided by your department. A copy of your Department's comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Subject: Proposed Apartment Complex Sponsored by Habitat for Humanity

Thank you for the opportunity to review the subject proposal. The Department of Hawaiian Home Lands has no comment to offer at this time. If you have any questions, please contact our Planning Office at (808) 620-9480.

Aloha and mahalo,

[Signature]
Micah A. Kane, Chairman
Hawaiian Homes Commission
March 28, 2012

Mr. Alapaki Nahale-a, Chairman  
Department of Hawaiian Home Land  
P.O. Box 1879  
Honolulu, Hawaii 96805

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui  
Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui,  
Hawaii

Dear Mr. Nahale-a:

Thank you for your Department’s letter of May 7, 2009, responding to our request for early consultation comments on the subject project.

We acknowledge that your Department had no comments and note that a copy of your letter will be included in the Draft Environmental Assessment (EA). Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama  
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
K:\DATA\HabitatKahawai\FIEC Responses\OHA.ecres.doc
Ms. Rowena Dagdag-Andaya  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawai‘i 96793  

Dear Ms. Dagdag-Andaya:

Subject: Proposed Apartment Complex Sponsored by Habitat for Humanity  
TMK: (2) 3-4-033:002

Thank you for the opportunity to comment on the proposed project. The following comments are offered:

The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules, Chapter 11-46 “Community Noise Control”. A noise permit may be required and should be obtained before the commencement of this project.

It is strongly recommended that the Standard Comments found at the Department’s website: http://hawaii.gov/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 or e-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski  
Acting District Environmental Health Program Chief
Dear Ms. Kitkowski:

Thank you for your letter, dated April 22, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

We acknowledge that noise created during the construction phase may exceed the maximum allowable levels set forth in Hawaii Administrative Rules, Chapter 11-46 “Community Noise Control.” The applicant will comply with Chapter 11-46 and obtain a noise permit, as applicable.

We have reviewed the standard comments on your Department’s website. We are enclosing a list of applicable comments, as well as the applicant’s response to each. See Exhibit “A”. 

March 28, 2012

Patti Kitkowski, District Environmental Health Program Chief State of Hawaii Department of Health Maui District Health Office 54 High Street Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii
We appreciate the input provided by your Department. A copy of your comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc. (w/enclosure)
    Stacy Otomo, Otomo Engineering, Inc. (w/enclosure)
REVIEW OF STANDARD COMMENTS RELATING TO STATE ENVIRONMENTAL HEALTH PROGRAMS

ENVIRONMENTAL PLANNING OFFICE

- Identify the waterbody type and class, as defined in Hawaii Administrative Rules Chapter 11-54 (http://www.state.hi.us/health/about/rules/11-54.pdf), of all potentially affected water bodies.

  **Response:**

  There are no streams or wetlands on the project site. Iao Stream is located across Kahawai Street from the project site. Adverse impacts to Iao Stream are not anticipated as a result of the proposed project. Appropriate construction best management practices (BMPs) and drainage improvements will be implemented to prevent runoff and mitigate impacts to Iao Stream.

- Identify any existing National Pollutant Discharge Elimination System (NPDES) permits and related connection permits (issued by permittees) that will govern the management of water that runs off or is discharged from the proposed project site or facility. Please include NPDES and other permit numbers; names of permittees, permitted facilities, and receiving waters (including waterbody type and class as in 1. above); diagrams showing drainage/discharge pathways and outfall locations; and note any permit conditions that may specifically apply to the proposed project.

  **Response:**

  There are no existing NPDES permits or related connection permits governing water quality management at the project site.

- Identify any planning documents, groups, and projects that include specific prescriptions for water quality management at the proposed project site and in the potentially affected waterbodies. Please note those prescriptions that may specifically apply to the proposed project.

  **Response:**

  There are no existing water quality actions being undertaken at the project site.
• Identify all potentially affected water bodies that appear on the current List of Impaired Waters in Hawaii Prepared under Clean Water Act.

**Response:**

There are no water bodies on the project site. Iao Stream is located across Kahawai Street from the project site. Iao Stream is identified as a medium priority on the current List of Impaired Waters in Hawaii. Adverse impacts to Iao Stream are not anticipated as a result of the proposed project.

• If the proposed project involves potentially affected water bodies that appear on the current List of Impaired Waters in Hawaii Prepared under Clean Water Act §303(d), identify and quantify expected changes in the following site and watershed conditions and characteristics:
  
  o surface permeability
  o hydrologic response of surface (timing, magnitude, and pathways)
  o receiving water hydrology runoff and discharge constituents
  o pollutant concentrations and loads in receiving waters
  o aquatic habitat quality and the integrity of aquatic biota

Where TMDLs are already established they include pollutant load allocations for the surrounding lands and point source discharges. In these cases, we suggest that the submittal specify how the proposed project would contribute to achieving the applicable load reductions.

Where TMDLs are yet to be established and implemented, a first step in achieving TMDL objectives is to prevent any project-related increases in pollutant loads. This is generally accomplished through the proper application of suitable best management practices in all phases of the project and adherence to any applicable ordinances, standards, and permit conditions. In these cases we suggest that the submittal specify how the proposed project would contribute to reducing the polluted discharge and runoff entering the receiving waters, including plans for additional pollutant load reduction practices in future management of the surrounding lands and drainage/discharge systems.

**Response:**

A Preliminary Engineering Report (PER) was prepared for the proposed project. The PER, presented in Appendix "B" of the Draft EA, describes the hydrological characteristics of the project site under both existing and with-project conditions. The Draft EA will discuss a program of BMPs to be implemented during construction to prevent the release of sedimentation in drainage flows across the process. From a long-term perspective, onsite drainage improvements will be constructed to retain project runoff. With the implementation of the foregoing mitigation measures, the proposed project is not expected to present impacts to Iao Stream.
We suggest that each submittal identify and analyze potential project impacts at a watershed scale by considering the potential contribution of the proposed project to cumulative, multi-project watershed effects on hydrology, water quality, and aquatic and riparian ecosystems. We also suggest that each submittal broadly evaluate project alternatives by identifying more than one engineering solution for proposed projects. In particular, we suggest the consideration of "alternative," "soft," and "green" engineering solutions for channel modifications that would provide a more environmentally friendly and aesthetically pleasing channel environment and minimize the destruction of natural landscapes.

Response:

With implementation of BMPs during construction and development of onsite drainage improvements, the proposed project is not expected to significantly adversely impact hydrology, water quality and aquatic and riparian ecosystems in vicinity of the project site. There are no channel modifications proposed as part of the project.

HAZARD EVALUATION AND EMERGENCY RESPONSE OFFICE

A Phase I Environmental Site Assessment (ESA) should be conducted for developments or redevelopments. If the investigation shows that a release of petroleum, hazardous substance, pollutants or contaminants occurred at the site, the site should be properly characterized through an approved Hawaii State Department of Health (DOH)/Hazard Evaluation and Emergency Response Office (HEER) soil and or groundwater sampling plan. If the site is found to be contaminated, then all removal and remedial actions to clean up hazardous substance or oil releases by past and present owners/tenants must comply with chapter 128D, Environmental Response Law, HRS, and Title 11, Chapter 451, HAR, State Contingency Plan.

Response:

A Phase I Environmental Site Assessment was prepared by Enpro Environmental (Enpro) in September 2007. Based on historical research and an onsite reconnaissance, there was no presence of a release of petroleum, hazardous substance, pollutants or contaminants identified on the project site. However, a pole-mounted transformer manufactured prior to 1979 is located on the southeast corner of the project site. Enpro recommended PCB testing of the transformer by Maui Electric Company (MECO).

CLEAN AIR BRANCH

A significant potential for fugitive dust emissions exists during all phases of construction and operations. Proposed activities that occur in proximity to existing residences, businesses, public areas or thoroughfares, exacerbate
potential dust problems. It is recommended that a dust control management plan be developed which identifies and addresses all activities that have a potential to generate fugitive dust. The plan, which does not require DOH approval, would help with recognizing and minimizing the dust problems from the proposed project.

Activities must comply with the provisions of Hawaii Administrative Rules, §11-60-1-33 on Fugitive Dust. In addition, for cases involving mixed land use, we strongly recommend that buffer zones be established, wherever possible, in order to alleviate potential nuisance problems.

The contractor should provide adequate measures to control the fugitive dust from the road areas and during the various phases of construction. Examples of measures that can be implemented to control dust include, but are not limited to, the following:

a) Planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;

b) Providing an adequate water source at the site prior to start-up of construction activities;

c) Landscaping and providing rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimizing dust from shoulders and access roads;

e) Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f) Controlling dust from debris being hauled away from the project site.

Response:

Best Management Practices will be implemented to minimize the potential for dust-related impacts from the construction of the proposed project. Project-related activities will comply with applicable provisions of Section 11-60-1.33, HAR.

CLEAN WATER BRANCH

The applicant will respond separately to the Clean Water Branch's comments received in a letter dated April 24, 2009.

SOLID AND HAZARDOUS WASTE BRANCH

- The state regulations for hazardous waste are in Chapters 11-260 to 11-280, Hawaii Administrative Rules (HAR). These rules apply to the identification, handling, transportation, storage and disposal of regulated hazardous waste. Generators, transporters and treatment, storage and disposal facilities of
hazardous waste must adhere to these requirements or be subject to fines and penalties.

Response:

The proposed project will comply with applicable requirements of HAR, Chapters 11-260 to 11-280.

- Generators of solid waste are required to ensure that their wastes are properly delivered to permitted solid waste management facilities. Managers of construction and demolition projects should require their waste contractors to submit disposal receipts and invoices to ensure proper disposal of wastes.

Response:

Construction waste for the project will be properly disposed of at an approved construction waste disposal facility. Following project construction, waste disposal services for the proposed Kahawai Condominiums will be provided by a private waste collection company.

- HRS Chapter 342G encourages the reduction of waste generation, reuse of discarded materials, and the recycling of solid waste. Businesses, property managers and developers, and government entities are highly encouraged to develop solid waste management plans to ensure proper handling of wastes. Solid waste management plans should also seek to maximize waste diversion and minimize disposal. Such plans should include designated areas to promote the collection of reusable and recyclable materials.

Response:

The applicant recognizes the benefits derived by responsible waste management and reduction measures. Solid waste management opportunities, such as designated recycling areas, will be evaluated.

**NOISE, RADIATION, AND INDOOR AIR QUALITY BRANCH**

- Project activities shall comply with Chapter 11-39 (Air Conditioning and Ventilating), Chapter 11-45 (Radiation Control) and 11-46 (Community Noise Control) of the Administrative Rules of the Department of Health.

Response:

The proposed project will comply with applicable requirements of HAR, Chapter 11-46, community noise control and Chapter 11-39 (Air Conditioning and Ventilating). HAR, Chapter 11-45 (Radiation Control) does not apply to the proposed project.
Ms. Rowena Dagdag-Andaya  
Planner  
Munekiyo & Hiraga, Inc.  
305 High Street, Suite 104  
Wailuku, Hawaii 96793  

Dear Ms. Dagdag-Andaya:  

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity  
Wailuku, Island of Maui, Hawaii  

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  

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).
2. 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 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.

3. For types of wastewater not listed in Item No. 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

4. You must also submit a copy of the NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.
5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification 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 (808) 586-4309.

Sincerely,

ALEC WONG, P.E., CHIEF
Clean Water Branch

JF:np
Alec Wong, P.E., Chief
State of Hawaii
Department of Health, Clean Water Branch
P.O. Box 3378
Honolulu, Hawaii 96801

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii, EMD/CWB 04108PJF.09

Dear Mr. Wong:

Thank you for your letter, dated April 24, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

1. We acknowledge that the project and its potential impacts to State waters must meet the antidegradation policy, designated uses, and water quality criteria.

2. We understand that a National Pollutant Discharge Elimination System (NPDES) permit is required for discharges of wastewater, including storm water runoff, into State surface waters. Coordination will be carried out with the Department of Health prior to project implementation to assess the applicability of the NPDES general permit.

3. We note that a NPDES individual permit may be required for types of wastewater discharge not covered under the NPDES general permit or wastewater discharging into Class 1 or Class AA waters. Again, coordination will be carried out with the Department of Health prior to project implementation to assess the applicability of the NPDES individual permit.

4. We acknowledge that a copy of the Notice of Intent (NOI) or NPDES permit application, as applicable, must be submitted to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD). Further, please be advised that SHPD provided early consultation comments on the subject project and concluded that "no historic properties affected". A copy of the letter is enclosed. See Exhibit “A”.
5. We understand that all discharges related to the project construction or operation, whether or not NPDES permit coverage and/or Section 401 Water Quality Certification are required, must comply with the State’s Water Quality Standards.

6. We have also reviewed the Clean Water Branch’s standard comments on the website provided. See Exhibit “B”.

We appreciate the input provided by your Department. A copy of your comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc. (w/enclosures).
    Stacy Otomo, Otomo Engineering, Inc. (w/enclosures)
May 21, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, HI 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: Section 106 (NHPA) Consultation and Chapter 6E-8 (HRS) Review
Habitat for Humanity - Proposed Apartment Complex
Located at 2024 Kahawai Street
County of Maui
U.S. Department of Housing and Urban Development
Wailuku, Island of Maui, Hawaii
TMK: (2) 3-4-033:002

The SHPD acknowledges receipt of the proposed construction of an apartment complex under funding from the County of Maui and the U.S. Department of Housing and Urban Development.

There are no existing structures located on the parcel.

We concur that the determination for the proposed undertaking is “no historic properties affected.”

Thank you for your time and attention. Should you have any questions regarding architectural concerns, please call Susan Tasaki, at (808) 692-8015.

Sincerely,

Nancy A. McMahon
Deputy State Historic Preservation Officer

c: U.S. Department of the Interior, National Park Service
Frank Hays, Director, Pacific West Region-Honolulu [Frank_Hays@nps.gov]
Melia Lane-Kamahele [Melia_Lane-Kamahele@nps.gov]
CLEAN WATER BRANCH

- Any project and its potential impacts to State waters must meet the State's: 1) Antidegradation policy, 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; 2) Designated uses, as determined by the classification of the receiving State waters; and 3) water quality criteria (Hawaii Administrative Rules (HAR), Chapter 11-54).

Response:

See response number 1 in letter.

- The Army Corps of Engineers should be contacted 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.

Response:

The Army Corps of Engineers has been contacted during the Early Consultation process for the proposed project.

- National Pollutant Discharge Elimination System (NPDES) permits are required 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, NPDES general permit coverage may be applied for by submitting a Notice of Intent (NOI) form: 1) storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi); 2) storm water associated with construction activities, including excavation, grading, clearing, demolition, uprooting of vegetation, equipment staging, and storage areas that result in the disturbance of equal to or greater than one (1) acre of total land area*; 3) treated effluent from leaking underground storage tank remedial activities; 4) once through cooling water less than one (1) million gallons per day; 5) hydrotesting water; 6) dewatering effluent; 7) treated effluent from petroleum

Exhibit “B”
Page 1
bulk stations and terminals; 8) treated effluent from well drilling activities; 9) treated effluent from recycled water distribution systems; 10) storm water and certain non-storm water from a small municipal separate storm sewer system; and 11) circulation water from decorative ponds or tanks. *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.

Response:

See response number 4 in letter.

- A separate NOI form for each type of discharge must be submitted 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.

Response:

See response number 4 in letter.

- For types of wastewater discharges not listed above or wastewater discharging into Class 1 or Class AA waters, you may need to obtain an NPDES individual permit. Class 1 waters include, but is not limited to, all State waters in natural reserves, preserves, sanctuaries, and refuges established by the Department of Land and Natural Resources (DLNR) under Hawaii Revised Statutes (HRS), Chapter 195, or similar reserves for the protection of aquatic life established under HRS, Chapter 195.

Response:

See response number 3 in letter.

- An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge or start of construction activities. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.
Response:
The applicant acknowledges that an NPDES individual permit application, if applicable, must be submitted at least 180 calendar days before the commencement of discharge or construction activities.

- You must also submit a copy of the NOI or NPDES permit application to the State DLNR, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

Response:
See response number 4 in letter.

- 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.

Response:
See response number 5 in letter.

- 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.

Response:
The applicant acknowledges that compliance with water quality and permitting requirements are subject to Chapter 11-54 and 11-55, HAR.
April 23, 2009

Munekiyo & Hiraga, Inc.
305 High Street Suite 104
Wailuku, Hawaii 96793

Attention: Ms. Rowena Dagdag-Andaya

Ladies and Gentlemen:

Subject: Early Consultation for Proposed Apartment Complex Sponsored by Habitat for Humanity

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, 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,

Morris M. Atta
Administrator
MEMORANDUM

TO: DLNR Agencies:
   x Div. of Aquatic Resources
   x Div. of Boating & Ocean Recreation
   x Engineering Division
   - Div. of Forestry & Wildlife
   - Div. of State Parks
   - Commission on Water Resource Management
   - Office of Conservation & Coastal Lands
   - Land Division

FROM: Morris M. Attia

SUBJECT: Early consultation on Proposed Apartment Complex
LOCATION: Wailuku, Maui, TMK: (2) 3-4-33:2
APPLICANT: Habitat for Humanity

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 20, 2009.

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: [Signature]
Date: 4/2/09
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/ Morris Atta
Ref.: Early Consultation for DEA for Proposed Apartment Complex
Maui.011

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone ___.

(X) Please note that the project site according to the Flood Insurance Rate Map (FIRM), is located in Zone C. The National Flood Insurance Program (NFIP) does not regulate developments within Zone C.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) 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 Sumitomo 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 Emle at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.

( ) 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 it can be included in the State Water Projects Plan Update.

( ) Additional Comments: ____________________________________________________________________________

( ) Other: _______________________________________________________________________________________

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: __________________________
ERIC T. HIRANO, CHIEF ENGINEER

Date: ____________________________
March 28, 2012

Russell Tsuji, Administrator  
State of Hawaii  
Department of Land and Natural Resources  
Land Division  
P.O. Box 621  
Honolulu, Hawaii 96809

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui  
Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui,  
Hawaii

Dear Mr. Tsuji:

Thank you for your Department’s letter, dated April 23, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided by the Engineering Division.

Since receiving your letter, we note that the Flood Insurance Rate Map (FIRM) designation for the property changed from Zone C to Zone X. Zone X denotes an area of minimal flooding and low flood risk. It is our understanding that the National Flood Insurance Program does not regulate developments within Zone X.

We further acknowledge that other than the comments from the Engineering Division, the Department of Land and Natural Resources has no other comments to offer.
We appreciate the input provided by your Department. A copy of your comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

[Signature]

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
May 21, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, HI 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: Section 106 (NHPA) Consultation and Chapter 6E-8 (HRS) Review
Habitat for Humanity - Proposed Apartment Complex
Located at 2024 Kahawai Street
County of Maui
U.S. Department of Housing and Urban Development
Wailuku, Island of Maui, Hawaii
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The SHPD acknowledges receipt of the proposed construction of an apartment complex under funding from the County of Maui and the U.S. Department of Housing and Urban Development.

There are no existing structures located on the parcel.

We concur that the determination for the proposed undertaking is "no historic properties affected."

Thank you for your time and attention. Should you have any questions regarding architectural concerns, please call Susan Tasaki, at (808) 692-8015.

Sincerely,

Nancy A. McMahon
Deputy State Historic Preservation Officer

c: U.S. Department of the Interior, National Park Service
   Frank Hays, Director, Pacific West Region-Honolulu [Frank_Hays@nps.gov]
   Melia Lane-Kamahele [Melia_Lane-Kamahele@nps.gov]
March 28, 2012

Pua Aiu
State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Boulevard, Room 555
Kapolei, Hawaii 96707

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii, Doc No. 0905ST11

Dear Ms. Aiu:

Thank you for your Department’s letter, dated May 21, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity, Maui, we acknowledge your determination that no historic properties will be affected by the proposed project.

We appreciate the input provided by your Department. A copy of your comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.

F:\DATA\HabitatKahawai\PFE\Response\SHPD\ecres.doc
Ms. Rowena Dagdag-Andaya
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

Subject: Habitat for Humanity, Maui
Early Consultation for Draft Environmental Assessment (DEA)
TMK: 3-4-033: 002

Thank you for providing the subject project for the State Department of Transportation’s (DOT) review and comments.

DOT understands that the subject project proposes to construct a 16-unit, three story apartment complex with approximately 19 parking stalls on an 11,186 square-foot parcel located at 2024 Kahawai Street in Wailuku.

DOT Highways Division Planning Branch, telephone number (808) 587-1830, submits the following comments:

1. The DEA should discuss and evaluate project impacts to the State highway facilities, namely Kahekili Highway and Waiehu Beach Road, such as but not limited to:
   a. Additional traffic generated by the project. If the project adversely impacts State highway facilities, a traffic assessment report must be prepared and submitted to the DOT Highways Division Planning Branch for review and approval.
   b. Construction vehicles and equipment that will be used at the job site. Please note that a permit is required from the Highways Division, Maui District Office, telephone number (808) 873-3538, to transport oversized equipment/materials and overweight loads on State highway facilities.
c. Inconvenience to the motoring public, bicyclists, pedestrians, residents, etc. during construction.

d. Hours that construction activity will be occurring.

2. Four copies of the DEA should be provided to DOT to facilitate review by the Highways Division.

If there are any other questions, please contact Mr. David Shimokawa of the DOT Statewide Transportation Planning Office at (808) 587-2356.

Very truly yours,

BRENNON T. MORIOKA, PH.D., P.E.
Director of Transportation

c: Katherine Kealoha, Office of Environmental Quality Control
Glenn Okimoto, Director  
State of Hawaii  
Department of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813  

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui  
Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui,  
Hawaii, STP 8.3234

Dear Mr. Okimoto:

Thank you for your Department's letter, dated April 29, 2009, providing early  
consultation comments on the subject project. On behalf of the applicant, Habitat for  
Humanity Maui, Inc., we offer the following information in response to the comments  
provided.

The June 21, 2011 Traffic Assessment for the Kahawai Condominiums, prepared by  
Austin Tsutsumi & Associates, states that the proposed project is anticipated to  
generate a total of 34 trips during the AM peak hour of traffic and 21 during the PM peak  
hour of traffic. Due to the location of the employment areas, it is anticipated that the  
majority of the trips will be headed away from Kahekili Highway and Waiehu Beach  
Road and is projected not to have a significant traffic impact to the State roadway  
system.
We appreciate the input provided by your Department. A copy of the Department's letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Per your Department's request, four (4) copies of the Draft EA will be provided to your Department. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cs:yp
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Keith Niiya, Austin, Tsutsumi & Associates, Inc.
May 26, 2009

Rowena Dagdag-Andaya
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

RE: Request for early input for the proposed apartment complex sponsored by Habitat for Humanity, Wailuku, Maui; TMK: (2) 3-4-033:002.

Aloha e Rowena Dagdag-Andaya,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter, dated April 7, 2009. Habitat for Humanity, Maui, proposes to develop a 16-unit, 3-story apartment complex in Wailuku, providing much needed affordable housing in the area. Funding will be provided by the County of Maui and the U.S. Department of Housing and Urban Development. OHA has no comments at this time, but looks forward to the opportunity to review the forthcoming Draft Environmental Assessment and accompanying Cultural Impact Assessment, the latter of which is required by Chapter 343, Hawaii Revised Statutes.

Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth by phone at (808) 594-1962 or e-mail her at heidig@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

C: OHA Maui CRC Office
March 28, 2012

Dr. Kamana’opono Crabbe, Chief Executive
Office of Hawaiian Affairs
711 Kapi’olani Boulevard, Suite 500
Honolulu, Hawaii 96813

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii, HRD09/4270

Dear Dr. Crabbe:

Thank you for your Department’s letter, dated May 7, 2009, responding to our request for early consultation comments on the subject project.

We acknowledge that your Department had no comments and note that a copy of your Department’s letter will be included in the Draft Environmental Assessment (EA). Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Keith Niiya, Austin, Tsutsumi & Associates, Inc.
June 29, 2009

Ms. Rowena Dagdag-Andaya
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity

The Department has reviewed your April 7, 2009 letter regarding the subject project. Based on our review, we have determined that the subject project would be exempt from Chapter 2.96, Maui County Code (MCC) on the basis of an affordable housing project with more than the residential workforce housing units (Section 2.96.030 B. 6. of Chapter 2.96, MCC). At the present time, the department has no additional comments to offer.

Please call Mr. Wayde Oshiro of our Housing Division at 270-7355 if you have any questions.

Sincerely,

LORI TSUHAKO, LSW, ACSW
Director of Housing and Human Concerns

cc: Housing Division
March 28, 2012

Jo-Ann T. Ridao, Director
County of Maui
Department of Housing and Human Concerns
200 Main Street, Suite 546
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Ms. Ridao:

Thank you for your Department's letter, dated June 29, 2009 providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we acknowledge that the proposed project is exempt from Chapter 2.96, Maui County Code (MCC) on the basis of an affordable housing project having more than the residential workforce housing units required.

We appreciate the input provided by your Department. A copy of your Department's comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
April 22, 2009

Munekiyo & Hiraga, Inc.
Rowena Dagdag-Andaya
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity

Dear Ms. Dagdag-Andaya:

The project is subject to the park assessment requirements of the subdivision ordinance, Maui County Code. However, there are provisions for waiving some or all of these requirements for qualified "affordable housing" projects.

Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development at 270-7387 to further discuss this matter.

Sincerely,

TAMARA HORCAJO
Director of Parks & Recreation

xc: Patrick T. Matsui, Chief of Parks Planning and Development

TH:PTM:do
March 28, 2012

Glenn Correa, Director
County of Maui
Department of Parks and Recreation
700 Hali‘a Nakoa Street, Unit 2
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Correa:

Thank you for your Department's letter, dated April 22, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we acknowledge that the proposed project may be subject to the park assessment requirements of the subdivision ordinance, Maui County Code. The applicant will coordinate with the Department of Parks and Recreation to determine whether some or all of the requirements may be waived for this proposed affordable housing project.

We appreciate the input provided by your Department. A copy of your Department's comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Ms. Rowena Dagdag-Andaya
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity

This is in response to your letter dated April 7, 2009, requesting comments on the above subject.

We have reviewed the information submitted. Please refer to the enclosed copy for our comments and/or recommendations. Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Wayne T. Ribao
for: Thomas M. Phillips
Chief of Police

Enclosure

c: Jeffrey Hunt, Maui County Dept. of Planning
RESPONSE TO A REQUEST FOR COMMENTS REGARDING A PROPOSED APARTMENT COMPLEX SPONSORED BY HABITAT FOR HUMANITY

This communication is submitted as a response to a request for comments by Munekiyo & Hiraga, Inc., Planner, Rowena Dagdag-Andaya, to assist in the facilitation of the Draft Environmental Assessment for the following project:

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity

TMK: (2) 3-4-033:002 (2024 Kahawai Street, Wailuku)

RESPONSE:

In review of the submitted documents, the focus, from the police perspective, would be upon the safety impacts upon pedestrian and vehicular movement during the construction phases and commencement of use of this project.

This area of Wailuku Town experiences moderate to heavy pedestrian and vehicular flow during the business day. There are residences and businesses in close proximity to this project and during the construction phases, extreme efforts should be made to minimize noise, dust & debris so not to inhibit those whose health and well being may be affected. Adequate traffic control devices and personnel should also be utilized to minimize the impacts to pedestrian and vehicular movement by the heavy equipment and vehicles traveling in and out of the area.

The proposed project has nineteen parking stalls on-site, but no visitor parking area. If visitors are required to park off-site (on street), roadway improvements, in compliance with codes and requirements, should also be completed to meet the need.

At this time it is difficult to foresee the impact these additional vehicles and pedestrians would have upon the current conditions. There should be considerations to given to the current conditions which involves already inundated two-lane, two-way flow roadways in the surrounding area with limited to no space for expansion.
Respectfully submitted for your review and approval.

[Signature]

Stephen T. Orikasa  E#716
Administrative Sergeant/Wailuku Patrol Division
04/13/09 @ 0945 Hours
Gary Yabuta, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Chief Yabuta:

Thank you for your Department’s letter, dated April 14, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

The applicant concurs that pedestrian and vehicular safety during the construction phase and long-term use of the project is important. Best Management Practices (BMPs) will be implemented during construction to mitigate potential noise and air quality impacts and associated impacts on residences and businesses in close proximity to the project site. Construction traffic to the site will be reduced by providing an area offsite for parking and transporting workers to the site by van. Minimal grading is proposed to limit the need for heavy equipment at the site.

The proposed project will provide 20 on-site parking spaces for residents, including one (1) space each for one-bedroom units and two (2) spaces for every two-bedroom unit. Due to the limitation in the size of the property, guest parking will be on-street.

A Traffic Assessment Report (TAR) was prepared for the proposed project and is included in the Draft Environmental Assessment (EA). The TAR concluded that the proposed project is anticipated to generate a total of 34 trips in the morning peak hour of traffic and 21 trips during the afternoon/evening peak hour. With only 28 vehicles exiting the site in the morning peak hour and eight (8) vehicles exiting in the afternoon/evening, the nearby intersection of Kahawai Street and North Market Street will likely remain unsignalized. Habitat supports efforts by the County of Maui to restrict...
street parking along Kahawai Street in the vicinity of the project site. Habitat believes that this action will significantly improve traffic conditions, particularly at the intersection of Market Street. The limitation of the size of the property prevents Habitat from providing guest parking. Guest to the project will need to seek available parking on Market Street.

We appreciate the input provided by your Department. A copy of your Department's comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Keith Niiya, Austin, Tsutsumi & Associates, Inc.
Ms. Rowena Dagdag-Andaya  
MUNEKIYO & HIRAGA, INC.  
305 High Street, Suite 104  
Wailuku, Maui, Hawaii 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: EARLY CONSULTATION FOR PREPARATION OF DRAFT ENVIRONMENTAL ASSESSMENT FOR PROPOSED APARTMENT COMPLEX SPONSORED BY HABITAT FOR HUMANITY; TMK (2) 3-4-033:022

We reviewed your request for early consultation and have the following comments:

1. Any street trees or landscaping planting along the property frontages shall be provided with root barriers.

2. The plans submitted for this project do not adequately show sufficient detail to determine whether the project is compliant with Building and Housing Codes.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.  
Director of Public Works

MMA:MMM:is  
xo: Highways Division  
Engineering Division  
S:\LUCA\CZM\Prop_Api_Habitat_for_Humanity_ec_34033002_is.wpd
March 28, 2012

David Goode, Director
County of Maui
Department of Public Works
200 South High Street, Room No. 434
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Goode:

Thank you for your Department’s letter, dated April 22, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

1. We acknowledge that any street trees or landscape planting along the property frontages shall be provided with root barriers.

2. The Draft Environmental Assessment (EA) will include project plans for the proposed project. Furthermore, building permit plans will be submitted for review during the building permit process.
We appreciate the input provided by your Department. A copy of your Department’s comment letter will be included in the Draft EA for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Jim Niess, Maui Architectural Group

F:\DATA\Habitat\Kahawai\MPEIC Response\DPW,ecres.doc
Ms. Rowena Dagdag-Andaya
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: APARTMENT COMPLEX
SPONSORED BY HABITAT FOR HUMANITY
EARLY CONSULTATION
TMK (2) 3-4-033:002, WAILUKU

We reviewed the subject application and have the following comments:

1. Solid Waste Division comments:
   a. Include a plan for construction waste recycling, reuse and disposal

2. Wastewater Reclamation Division (WWRD) comments:
   a. Although wastewater system capacity is currently available as of 4/24/2009, the developer should be informed that wastewater system capacity cannot be ensured until the issuance of the building permit.
   b. Wastewater contribution calculations are required before building permit is issued.
   c. Developer shall pay assessment fees for treatment plant expansion costs in accordance with ordinance setting forth such fees.
   d. Developer is required to fund any necessary off-site improvements to collection system and wastewater pump stations.
   e. Show or list minimum slope of new sewer laterals.
   f. Plans should show the installation of a single service lateral and advanced riser, if one does not exist.
   g. Plans should show the installation of a property sewer service manhole near the property prior to connection to the County sewer.
   h. Plans should show the existing sewer system in vicinity of the subject project.
i. Non-contact cooling water and condensate should not drain to the wastewater system.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl K. Okuma

Cheryl K. Okuma, Director
Dear Mr. Ginoza:

Thank you for your Department's letter, dated April 24, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1.a. A plan for construction waste recycling, reuse and disposal will be coordinated with the Department of Environmental Management (DEM) Solid Waste Division prior to the initiation of construction. In addition, the proposed project will utilize Habitat's ReStore, located at 970 Lower Main Street in Wailuku, as appropriate. The ReStore accepts donations of new and slightly used construction and remodeling materials and resells these items to the general public at a reduced rate.

2.a. Habitat acknowledges that wastewater system capacity cannot be ensured until the issuance of the building permit and that wastewater contribution calculations are required before a building permit is issued.

   b. Refer to No. 2.a. above.

   c. Habitat will coordinate with the DEM to determine the applicability of wastewater assessment fees for the proposed project. Chapter 14.35.080 establishes that affordable housing units are exempt from wastewater assessment fees for facility expansion for the Wailuku/Kahului Wastewater Treatment System.
d. Habitat acknowledges the requirement to fund any necessary off-site improvements to the collection system and wastewater pump stations as required by the proposed project.

e. Please note there is an existing sewer lateral on the property connected to the existing 6-inch sewerline on Lewa Street. However, plans submitted for building permit review will show or list the minimum slope of any new sewer laterals.

f. There is a single service lateral on the property.

g. If required, the building plans will show the installation of a property sewer manhole.

h. The building plans will show the existing sewer system in the vicinity of the proposed project.

i. Habitat acknowledges that non-contact cooling water and condensate should not drain to the wastewater system.

We appreciate the input provided by your Department. A copy of your Department’s comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
    Jim Niess, Maui Architectural Group
    Stacy Otomo, Otomo Engineering, Inc.
June 10, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 South High Street, Suite 104
Wailuku HI 96793

Re: Proposed Apartment Complex Sponsored by Habitat for Humanity
TMK: 3-4-033:002

Dear Ms. Dagdag-Andaya:

Thank you for the opportunity to comment on this early consultation for preparing an Environmental Assessment (EA).

Source Availability and Consumption
The project area is served by the Central Maui System. The main sources of water for this system are the designated lao aquifer, Waihee aquifer, the lao tunnel and Iao-Waikapu Ditch from the designated Na Wai Eha. New source development projects include Maui Lani Wells, Waikapu South well and the proposed Waiale Surface Water Treatment Plant. The subject property is served by a 3/4-inch meter. Based on system per unit standards, demand for the apartment complex would be 8,960 gallons per day. There is currently no additional source available to accommodate new demand according to system standards on the Central Maui System. The Department may delay issuance of additional or larger meter, if needed, until new sources are on line. Domestic and irrigation calculations will be required in the building permit process to determine meter adequacy.

System Infrastructure
The property is fronted by an 8-inch waterline and two fire hydrants about 55 and 188 feet west of the property and one fire hydrant about 255 feet east of the property. A 24-inch transmission line runs along Kahawai Street. Fire flow calculations prepared by a certified engineer or architect will be required in the building permit process. A backflow preventer will be required, if not already
present on site.

Conservation
A water conservation checklist for condominiums is attached for reference. We recommend that the following conservation measures be included in the EA and implemented:

**Eliminate Single-Pass Cooling:** Single-pass, water-cooled systems should be eliminated per Maui County Code Subsection 14.21.20. Although prohibited by code, single-pass water cooling is still manufactured into some models of air conditioners, freezers, and commercial refrigerators.

**Maintain Fixtures to Prevent Leaks:** A simple, regular program of repair and maintenance can prevent the loss of hundreds or even thousands of gallons a day. The applicant should establish a regular maintenance program.

**Use Climate-adapted Plants:** Native plants that are adapted to the Plant Zone 4 should be used for all landscaping purposes. Native and climate-adapted plants conserve water and protect the watershed from degradation due to invasive alien species.

**Prevent Over-Watering By Automated Systems:** Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evapo-transpiration rates at the site. As an alternative, provide the more automated, soil-moisture sensors on controllers.

Pollution Prevention
In order to protect the underlying lao aquifer and the lao Stream, we recommend that the following best management practices be included in the EA and implemented during construction to minimize infiltration and runoff from all construction and vehicle operations:

1. Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the water.
2. Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work.
3. Retain ground cover until the last possible date.
4. Stabilize denuded areas by sodding or planting as soon as possible. Replanting should include soil amendments and temporary irrigation. Use high seeding rates to ensure rapid stand establishment.
5. Avoid fertilizers and biocides, or apply only during periods of low rainfall to minimize chemical run-off.
6. Keep run-off on site.

Should you have any questions regarding system improvements for this project, please contact our engineering division at 270-7835. For questions on water resources, please contact our Water Resources and Planning Division at 244-8550.

Sincerely,

Jeffrey K. Eng, Director

emb
c: engineering division

attachments:
A Checklist of Water Conservation Ideas for Condominiums
Plant Brochure: “Saving Water in the Yard”

C:\EA EIS SLUD\Apartment_Complex Habitat for Humanity pre EA.wpd
Saving Water in The Yard
What and How to Plant in Your Area

1. Wet Windward Areas
2. Cool Dry Upper Elevations
3. Warm to Hot Low Elevations
4. Wetter Low Areas Near Mountains
5. Windward Coastal Salt Spray Zones

Tips From The Maui County Department of Water Supply
By Water All Things Find Life

Plant Zone Map Adapted From The Maui County Planting Plan
# Zone-specific Native and Polynesian plants for Maui County

**Zone 1**

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<th>TYPE</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
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<td>10'</td>
<td>1,000' to 3,000'</td>
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<td>ko'oko'olau</td>
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<td>Cordyline fruticosa</td>
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<tr>
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<td>Charpentiera obovata</td>
<td></td>
<td>15'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tr</td>
<td>Cordia subcordata</td>
<td>kou</td>
<td>30'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Hibiscus furcellatus</td>
<td>t'akohala, hau-hele</td>
<td>8'</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Tr</td>
<td>Metrosideros polymorpha var. macrophylla</td>
<td>oh'i'a lehua</td>
<td>25'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Morinda citrifolia</td>
<td>indian mulberry, noni</td>
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<td>15'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Pandanus tectorius</td>
<td>hala, puhala (HAILELIST)</td>
<td>35'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>V</td>
<td>Alyxia oliviformis</td>
<td>maile</td>
<td></td>
<td></td>
<td>sea to 6,000'</td>
<td>Medium to Wet</td>
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Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Zone: 2</th>
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</thead>
</table>

**TYPE:**  
- **F** Fern  
- **G** Grass  
- **Gr** Ground Cover  
- **Sh** Shrub  
- **P** Palm  
- **S** Sedge  
- **Tr** Tree  
- **V** Vine

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Psilotum nudum</td>
<td>moa, moa kula</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>F</td>
<td>Sadleria cyatheoides</td>
<td>'ama'u, ama'uma'u</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>G</td>
<td>Eragrostis monticola</td>
<td>kalarialo</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Ipomoea tuboides</td>
<td>Hawaiian moon flower, 'ula</td>
<td>1'</td>
<td>10'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Peperomia leptostachya</td>
<td>'ala'ala-wai-nui</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Plumbago zeylanica</td>
<td>'ille'e</td>
<td>1'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gr-Sh</td>
<td>Hibiscus calyphyllus</td>
<td>ma'o hau hele, Rock's hibiscus</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr-Sh</td>
<td>Ipomea tuboides</td>
<td>Hawaiian moon flower, 'ula</td>
<td>1'</td>
<td>10'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Argemone glauca var. decipiens</td>
<td>pua kala</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Artemisia maulensis var. diffusa</td>
<td>Maui wormwood, 'ahunahuna</td>
<td>2'</td>
<td>3'</td>
<td>1,000' to higher</td>
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<tr>
<td>Sh</td>
<td>Chenopodium ohianse</td>
<td>'ohe'ane, 'awoewo</td>
<td>6'</td>
<td></td>
<td>sea to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Dianella sandwicensis</td>
<td>'uki</td>
<td>2'</td>
<td>2'</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Ipomea tuboides</td>
<td>Hawaiian moon flower, 'ula</td>
<td>1'</td>
<td>10'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Lepidium eriophorum</td>
<td>'ulei, 'eluhe</td>
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<tr>
<td>Sh</td>
<td>Senna gaudichaudii</td>
<td>koloana</td>
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<td>5'</td>
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<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Styphelia tamaiaelae</td>
<td>pukiawe</td>
<td>8'</td>
<td>8'</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Vitex rotundifolia</td>
<td>pohinahina</td>
<td>3'</td>
<td>4'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Myoporum sandwicense</td>
<td>naio, false sandalwood</td>
<td>10'</td>
<td>10'</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Nototrichum sandwicense</td>
<td>kula'i</td>
<td>8'</td>
<td>8'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Dodonaea viscosa</td>
<td>'alai</td>
<td>6'</td>
<td>6'</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Tr</td>
<td>Acacia koa</td>
<td>koa</td>
<td>50' - 100'</td>
<td>40' - 80'</td>
<td>1,500' to 4,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Charpentiera obovata</td>
<td>15'</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Tr</td>
<td>Erythrina sandwicensis</td>
<td>wiluwi</td>
<td>20'</td>
<td>20'</td>
<td>sea to 1,000'</td>
<td>Dry</td>
</tr>
<tr>
<td>Tr</td>
<td>Metrosideros polymorpha var. macrophylla</td>
<td>ohia lehua</td>
<td>25'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
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</table>
## Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr</td>
<td>Nestegis sandwicensis</td>
<td>olopua</td>
<td>15'</td>
<td>15'</td>
<td>1,000' to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Pleomele auwahiensis</td>
<td>halapepe</td>
<td>20'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tr</td>
<td>Rauvolfia sandwicensis</td>
<td>hao</td>
<td>20'</td>
<td>15'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Santalum ellipticum</td>
<td>coastal sandalwood, 'il-ahi</td>
<td>8'</td>
<td>8'</td>
<td>sea to 3,000'</td>
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</tr>
<tr>
<td>Tr</td>
<td>Sophora chrysophylla</td>
<td>mamane</td>
<td>15'</td>
<td>15'</td>
<td>1,000' to 3,000'</td>
<td>Medium</td>
</tr>
<tr>
<td>V</td>
<td>Alyxia oliviformis</td>
<td>maile</td>
<td></td>
<td></td>
<td>sea to 6,000'</td>
<td>Medium to Wet</td>
</tr>
</tbody>
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Zone-specific Native and Polynesian plants for Maui County

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</thead>
<tbody>
<tr>
<td>F</td>
<td>Psilotum nudum</td>
<td>moa, moa kula</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>G</td>
<td>Colubrina asiatica</td>
<td>'anapanapa</td>
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<td>10'</td>
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<td>G</td>
<td>Eragrostis monticola</td>
<td>kalamalo</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>G</td>
<td>Eragrostis variabilis</td>
<td>'emo-loa</td>
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<td>2'</td>
<td>sea to 3,000'</td>
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<tr>
<td>G</td>
<td>Fimbristylis cymosa ssp. spathacea</td>
<td>mau'u'ak'aki fimbristylis</td>
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<td>1'</td>
<td>sea to 1,000'</td>
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<td>Gr</td>
<td>Boerhavia repens</td>
<td>alena</td>
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<td>Chamaesyce celastroides var. laehiensis</td>
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<td>Cressa truxillensis</td>
<td>cressa</td>
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<tr>
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<td>hinahina ku kahakai</td>
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<td>2'</td>
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<tr>
<td>Gr</td>
<td>Ipomoea tuboides</td>
<td>Hawaiian moon flower, 'uala</td>
<td>1'</td>
<td>10'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Jacquemontia ovalifolia ssp. sandwicensis</td>
<td>pa'u o hi'aka</td>
<td>0.5'</td>
<td>6'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td>Gr</td>
<td>Lipochaeta integrifolia</td>
<td>nehe</td>
<td>1'</td>
<td>5'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Peperomia leptostachya</td>
<td>'ala'ala-wai-nui</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Plumbago zeylanica</td>
<td>'iie'e</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Sesuvium portulacastrum</td>
<td>'akulikuli, sea-purslane</td>
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<td>Dry to Wet</td>
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<tr>
<td>Gr</td>
<td>Sida fallax</td>
<td>'ilima</td>
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<tr>
<td>Gr</td>
<td>Tephrosia purpurea var. purpurea</td>
<td>'auhuhu</td>
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<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Hibiscus calyphyllus</td>
<td>ma'o hau hele, Rock's hibiscus</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Lipochaeta rockii</td>
<td>nehe</td>
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<td>2'</td>
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<td>Dry to Medium</td>
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<td>Gr - Sh</td>
<td>Lipochaeta succulenta</td>
<td>nehe</td>
<td>2'</td>
<td>5'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Lycium sandwicense</td>
<td>'ohe-lo-kai, 'ae'ae</td>
<td>2'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>P</td>
<td>Cocos nucifera</td>
<td>coconut, niu</td>
<td>100'</td>
<td>30'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>P</td>
<td>Pritchardia hillebrandii</td>
<td>lo'ulu, fan palm</td>
<td>25'</td>
<td>15'</td>
<td>sea to 1,000'</td>
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</tr>
<tr>
<td>S</td>
<td>Manscus javanicus</td>
<td>marsh cypress, 'ahu'awa</td>
<td>0.5'</td>
<td>0.5'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
</tbody>
</table>
# Zone-specific Native and Polynesian plants for Maui County

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<thead>
<tr>
<th>Type</th>
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<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh</td>
<td>Argemone glauca var. decipiens</td>
<td>pua kala</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Bidens mauenis</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Bidens menziesii ssp. menziesii</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Bidens micrantha ssp. micrantha</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Chenopodium oahuense</td>
<td>'aheahe, aweoweo</td>
<td>6'</td>
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</tr>
<tr>
<td>Sh</td>
<td>Dianella sandwicensis</td>
<td>'uki</td>
<td>2'</td>
<td>2'</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Gossypium tomentosum</td>
<td>mao, Hawaiian cotton</td>
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<td>8'</td>
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<tr>
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<td>Hedyotis spp.</td>
<td>au, pilo</td>
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<tr>
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<td>Lipochaeta lavarum</td>
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<td>Sh</td>
<td>Osteomeles anthyllidifolia</td>
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<td>naupaka, naupaka-kahakai</td>
<td>6'</td>
<td>8'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Senna gaudichaudii</td>
<td>kolomana</td>
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<td>5'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
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<td>'akia, beach solanum</td>
<td>3'</td>
<td>3'</td>
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<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Styphelia tameiameiae</td>
<td>pukiawe</td>
<td>6'</td>
<td>6'</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Vitex rotundifolia</td>
<td>pohinahina</td>
<td>3'</td>
<td>4'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
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<td>'akia, Molokai osmanthus</td>
<td>8'</td>
<td>8'</td>
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<tr>
<td>Sh-Tr</td>
<td>Broussonetia papyrifera</td>
<td>wauke, paper mulberry</td>
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<td>6'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Myoporum sandwicense</td>
<td>naio, false sandalwood</td>
<td>10'</td>
<td>10'</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Nototrichium sandwicense</td>
<td>kulu'</td>
<td>8'</td>
<td>8'</td>
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<td>Dry to Medium</td>
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<tr>
<td>Sh-Tr</td>
<td>Dodonaea viscosa</td>
<td>'aali'i</td>
<td>8'</td>
<td>8'</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Tr</td>
<td>Aleurites moluccana</td>
<td>candlenut, kukui</td>
<td>50'</td>
<td>50'</td>
<td>sea to 3,000'</td>
<td>Medium to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Calophyllum inophyllum</td>
<td>kamani, alexandrian laurel</td>
<td>60'</td>
<td>40'</td>
<td>sea to 3,000'</td>
<td>Medium to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Canthium odoratum</td>
<td>Alahe'e, 'ohe'e, walahe'e</td>
<td>12'</td>
<td>8'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Cordia subcordata</td>
<td>kou</td>
<td>30'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Diospyros sandwicensis</td>
<td>lama</td>
<td>12'</td>
<td>15'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Erythrina sandwicensis</td>
<td>williwill</td>
<td>20'</td>
<td>20'</td>
<td>sea to 1,000'</td>
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</tr>
<tr>
<td>Tr</td>
<td>Metrosideros polymorpha var. macrophylla</td>
<td>ohi'a lehua</td>
<td>25'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
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### Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr</td>
<td>Morinda citrifolia</td>
<td>Indian mulberry, noni</td>
<td>20'</td>
<td>15'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Nesoluma polynesiucum</td>
<td>keahi</td>
<td>15'</td>
<td>15'</td>
<td>sea to 3,000'</td>
<td>Dry</td>
</tr>
<tr>
<td>Tr</td>
<td>Nestegis sandwicensis</td>
<td>olopu</td>
<td>15'</td>
<td>15'</td>
<td>1,000' to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Pandanus tectorius</td>
<td>hala, puhala (HALELIST)</td>
<td>35'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Pleomele auwahiensis</td>
<td>halapepe</td>
<td>20'</td>
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<td></td>
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<tr>
<td>Tr</td>
<td>Rauvolia sandwicensis</td>
<td>hao</td>
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<td>15'</td>
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<td>Dry to Medium</td>
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<tr>
<td>Tr</td>
<td>Reynoldsia sandwicensis</td>
<td>'ohe makai</td>
<td>20'</td>
<td>20'</td>
<td>1,000' to 3,000'</td>
<td>Dry</td>
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<tr>
<td>Tr</td>
<td>Santalum ellipticum</td>
<td>coastal sandalwood, 'ili-ahi</td>
<td>8'</td>
<td>8'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Thespisia populnea</td>
<td>milo</td>
<td>30'</td>
<td>30'</td>
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# Zone-specific Native and Polynesian plants for Maui County

## Zone 4

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<th>Type</th>
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<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Psilotum nudum</td>
<td>moa, moa kula</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
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</tr>
<tr>
<td>F</td>
<td>Sadleria cyatheoides</td>
<td>ama' u, ama' uma' u</td>
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<td></td>
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</tr>
<tr>
<td>G</td>
<td>Colubrina asiatica</td>
<td>'anapanapa</td>
<td>3'</td>
<td>10'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>G</td>
<td>Eragrostis monticola</td>
<td>kalamalo</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>G</td>
<td>Eragrostis variabilis</td>
<td>'emo-loa</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>G</td>
<td>Limnophylla cymosa ssp. spathacea</td>
<td>mau'u 'ak' 'aki limnophylla</td>
<td>0.5'</td>
<td>1'</td>
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</tr>
<tr>
<td>Gr</td>
<td>Chamaesyce celastroides var. laehiensis</td>
<td>'akoko</td>
<td>2'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Ipomoea tubolides</td>
<td>Hawaiian moon flower, 'uala</td>
<td>1'</td>
<td>10'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Jacquemontia ovalifolia ssp. sandwicensis</td>
<td>pa'u o hi'iaka</td>
<td>0.5'</td>
<td>6'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Lipochaeta integrifolia</td>
<td>nehe</td>
<td>1'</td>
<td>5'</td>
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<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Peperomia leptostachya</td>
<td>'ala'ala-wai-nui</td>
<td>1'</td>
<td>1'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Plumbago zeylanica</td>
<td>'ilie'e</td>
<td>1'</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Gr</td>
<td>Sida fallax</td>
<td>'ilima</td>
<td>0.5'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr</td>
<td>Tephrosia purpurea var. purpurea</td>
<td>'ahu'ahu</td>
<td>2'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Hibiscus calyphyllus</td>
<td>ma'o hau hele, Rock's hibiscus</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Lipochaeta rockii</td>
<td>nehe</td>
<td>2'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Gr - Sh</td>
<td>Lipochaeta succulenta</td>
<td>nehe</td>
<td>2'</td>
<td>5'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>P</td>
<td>Cocos nucifera</td>
<td>coconut, niu</td>
<td>100'</td>
<td>30'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>P</td>
<td>Pritchardia arecina</td>
<td>lo'o'ulu, hawane</td>
<td>40'</td>
<td>10'</td>
<td>1,000' to 3,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>P</td>
<td>Pritchardia forbesiana</td>
<td>lo'o'ulu</td>
<td>15'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>Pritchardia hillebrandii</td>
<td>lo'o'ulu, fan palm</td>
<td>25'</td>
<td>15'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>S</td>
<td>Mariscus javanicus</td>
<td>marsh cypress, 'ahu'awa</td>
<td>0.5'</td>
<td>0.5'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Argemone glauca var. decipiens</td>
<td>pua kala</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Artemisia austromontana</td>
<td>'ahinahina</td>
<td>2'</td>
<td>3'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
</tbody>
</table>
### Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh</td>
<td>Artemisia mauiensis var. diffusa</td>
<td>Maui wormwood, ‘ahinahina</td>
<td>2'</td>
<td>3’</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Bidens hillebrandiana ssp. hillebrandiana</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Sh</td>
<td>Bidens menziesii ssp. menziesii</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Bidens micrantha ssp. micrantha</td>
<td>ko'oko'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Cordyline fruticosa</td>
<td>ti, ki</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sh</td>
<td>Dianella sandwicensis</td>
<td>'uki</td>
<td>2'</td>
<td>2’</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Lipochaeta lavarum</td>
<td>nehe</td>
<td>3'</td>
<td>3’</td>
<td>sea to 3,000'</td>
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<tr>
<td>Sh</td>
<td>Osteomeles anthyllidifolia</td>
<td>ule'i, eluehe</td>
<td>4’</td>
<td>6’</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Scaevola sericea</td>
<td>naupaka, naupaka-kahakai</td>
<td>6’</td>
<td>8’</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Solanum nelsonii</td>
<td>'akia, beach solanum</td>
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<td>3’</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Styphelia tameameiae</td>
<td>pukiawe</td>
<td>6’</td>
<td>6’</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh</td>
<td>Vifex rotundifolia</td>
<td>pohinahina</td>
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<td>4’</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
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<td>Wikstroemia uva-ursi kauaiensis</td>
<td>'akia, Molokai osmanthus</td>
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<tr>
<td>Sh - Tr</td>
<td>Broussonetia papyrifera</td>
<td>wauke, paper mulberry</td>
<td>8’</td>
<td>6’</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh - Tr</td>
<td>Myoporum sandwicense</td>
<td>naio, false sandalwood</td>
<td>10’</td>
<td>10’</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh - Tr</td>
<td>Nototrichium sandwicense</td>
<td>kulu‘i</td>
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<td>8’</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Sh-Tr</td>
<td>Dodonaea viscosa</td>
<td>'a‘ali‘i</td>
<td>6’</td>
<td>8’</td>
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<tr>
<td>Tr</td>
<td>Acacia koa</td>
<td>koa</td>
<td>50' - 100'</td>
<td>40' - 80'</td>
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<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Aleurites moluccana</td>
<td>candlenut, kukui</td>
<td>50’</td>
<td>50’</td>
<td>sea to 3,000'</td>
<td>Medium to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Calophyllum inophyllum</td>
<td>kamani, alexandrian laurel</td>
<td>60’</td>
<td>40’</td>
<td>sea to 3,000'</td>
<td>Medium to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Canthium odoratum</td>
<td>Alahe'e, 'ohe'e, walahe'e</td>
<td>12’</td>
<td>8’</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
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<td>Charpentiera obovata</td>
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<tr>
<td>Tr</td>
<td>Cordia subcordata</td>
<td>kou</td>
<td>30’</td>
<td>25’</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
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<tr>
<td>Tr</td>
<td>Diospyros sandwicense</td>
<td>fama</td>
<td>12’</td>
<td>15’</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Hibiscus furcellatus</td>
<td>'akiohala, hau-hele</td>
<td>8’</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Tr</td>
<td>Metrosideros polymorpha var. macrophylla</td>
<td>ohì'a lehua</td>
<td>25’</td>
<td>25’</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Morinda citrifolia</td>
<td>indian mulberry, noni</td>
<td>20’</td>
<td>15’</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
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### Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
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<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tr</td>
<td>Nestegis sandwicensis</td>
<td>olopua</td>
<td>15'</td>
<td>15'</td>
<td>1,000' to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Pandanus tectorius</td>
<td>hala, puhala (HALELIST)</td>
<td>35'</td>
<td>25'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>Tr</td>
<td>Pleomele auwahiensis</td>
<td>halapepe</td>
<td>20'</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Rauvolfia sandwicensis</td>
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<td>15'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Santalum ellipticum</td>
<td>coastal sandalwood, 'ili-ahi</td>
<td>8'</td>
<td>8'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Sophora chrysophylla</td>
<td>mamane</td>
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<td>15'</td>
<td>1,000' to 3,000'</td>
<td>Medium</td>
</tr>
<tr>
<td>Tr</td>
<td>Thespesia populnea</td>
<td>milo</td>
<td>30'</td>
<td>30'</td>
<td>sea to 3,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td>V</td>
<td>Alyxia oliviformis</td>
<td>maile</td>
<td></td>
<td></td>
<td>sea to 6,000'</td>
<td>Medium to Wet</td>
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## Zone-specific Native and Polynesian plants for Maui County

### Zone 5

<table>
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<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F</strong></td>
<td>Colubrina asiatica</td>
<td>'anapanapa</td>
<td>3'</td>
<td>10'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>Eragrostis variabilis</td>
<td>'emo-loa</td>
<td>1'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td>Fimbristylis cymosa ssp. spathacea</td>
<td>mau'u'aki'aki fimbristylis</td>
<td>0.5'</td>
<td>1'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Boerhavia repens</td>
<td>alena</td>
<td>0.5'</td>
<td>4'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td><strong>Gr</strong></td>
<td>Chamaesyce celastroides var. laeliensis</td>
<td>'akoko</td>
<td>2'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td><strong>Gr</strong></td>
<td>Cressa truxillensis</td>
<td>cressa</td>
<td>0.5'</td>
<td>1'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Heliotropium anomalum var. argenteum</td>
<td>hinahina ku kahakai</td>
<td>1'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Jacquemontia ovalifolia ssp. sandwicensis</td>
<td>pa'u o hila'aka</td>
<td>0.5'</td>
<td>6'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Lipochaeta integrifolia</td>
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<td>1'</td>
<td>5'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Sesuvium portulacastrum</td>
<td>'akulikuli, sea-purslane</td>
<td>0.5'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td><strong>Gr</strong></td>
<td>Sida fallax</td>
<td>'ilima</td>
<td>0.5'</td>
<td>3'</td>
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<tr>
<td><strong>Gr</strong></td>
<td>Teprosia purpurea var. purpurea</td>
<td>'ahu'hu</td>
<td>2'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr - Sh</strong></td>
<td>Hibiscus calyphyllus</td>
<td>ma'o hau hele, Rock's hibiscus</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Gr - Sh</strong></td>
<td>Lycium sandwicense</td>
<td>'ohe-o-kai, 'ae'ae</td>
<td>2'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>Cocos nucifera</td>
<td>coconut, niu</td>
<td>100'</td>
<td>30'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>Pritchardia hillebrandii</td>
<td>lo'ulu, fan palm</td>
<td>25'</td>
<td>15'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td>Mariscus javanicus</td>
<td>marsh cypress, 'ahu'awa</td>
<td>0.5'</td>
<td>0.5'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Argemone glauca var. decipiens</td>
<td>pua kala</td>
<td>3'</td>
<td>2'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Artemisia australis</td>
<td>'alinahina</td>
<td>2'</td>
<td>3'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Bidens hillebrandiana ssp. hillebrandiana</td>
<td>ko'oko'o'olau</td>
<td>1'</td>
<td>2'</td>
<td>sea to 1,000'</td>
<td>Dry to Wet</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Bidens mauliensis</td>
<td>ko'oko'o'olau</td>
<td>1'</td>
<td>3'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Chenopodium oahuense</td>
<td>'ahahea, 'aweoweo</td>
<td>6'</td>
<td></td>
<td>sea to higher</td>
<td>Dry to Medium</td>
</tr>
<tr>
<td><strong>Sh</strong></td>
<td>Dianella sandwicensis</td>
<td>'uki</td>
<td>2'</td>
<td>2'</td>
<td>1,000' to higher</td>
<td>Dry to Medium</td>
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<tr>
<td><strong>Sh</strong></td>
<td>Gossypium tomentosum</td>
<td>mao, Hawaiian cotton</td>
<td>5'</td>
<td>8'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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</table>
## Zone-specific Native and Polynesian plants for Maui County

<table>
<thead>
<tr>
<th>Type</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Height</th>
<th>Spread</th>
<th>Elevation</th>
<th>Water req.</th>
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<tbody>
<tr>
<td>Sh</td>
<td>Hedyotis spp.</td>
<td>au, pilo</td>
<td>3'</td>
<td>2'</td>
<td>1,000' to 3,000'</td>
<td>Dry to Wet</td>
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<tr>
<td>Sh</td>
<td>Lipochaeta lavarum</td>
<td>nehe</td>
<td>3'</td>
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<tr>
<td>Sh</td>
<td>Osteomeles anthyllidifolia</td>
<td>'ulei, eluhe</td>
<td>4'</td>
<td>6'</td>
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<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Scaevola sericea</td>
<td>naupaka, naupaka-kahakai</td>
<td>6'</td>
<td>8'</td>
<td>sea to 1,000'</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Senna gaudichaudii</td>
<td>kolomana</td>
<td>5'</td>
<td>5'</td>
<td>sea to 3,000'</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh</td>
<td>Solanum nelsonii</td>
<td>'akia, beach solanum</td>
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<td>3'</td>
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<tr>
<td>Sh</td>
<td>Vitex rotundifolia</td>
<td>pohinahina</td>
<td>3'</td>
<td>4'</td>
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<tr>
<td>Sh</td>
<td>Wikstroemia uva-ursi kauaiensis kauaiensis</td>
<td>akia, Molokai osmanthus</td>
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<tr>
<td>Sh-Tr</td>
<td>Myoporum sandwicense</td>
<td>naio, false sandalwood</td>
<td>10'</td>
<td>10'</td>
<td>sea to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Sh-Tr</td>
<td>Dodonaea viscosa</td>
<td>'a'alii</td>
<td>6'</td>
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<td>sea to higher</td>
<td>Dry to Medium</td>
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<tr>
<td>Tr</td>
<td>Aleurites moluccana</td>
<td>candlenut, kukui</td>
<td>50'</td>
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<td>Calophyllum inophyllum</td>
<td>kamani, alexandrian laurel</td>
<td>60'</td>
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<td>sea to 3,000'</td>
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<tr>
<td>Tr</td>
<td>Cordia subcordata</td>
<td>kou</td>
<td>30'</td>
<td>25'</td>
<td>sea to 1,000'</td>
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<tr>
<td>Tr</td>
<td>Hibiscus furcellatus</td>
<td>akohala, hau-hele</td>
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<td>Tr</td>
<td>Morinda citrifolia</td>
<td>indian mulberry, noni</td>
<td>20'</td>
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<td>Tr</td>
<td>Pandanus tectorius</td>
<td>hala, puhala (HALELIST)</td>
<td>35'</td>
<td>25'</td>
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<td>Dry to Wet</td>
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<tr>
<td>Tr</td>
<td>Thespesia populnea</td>
<td>milo</td>
<td>30'</td>
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<td>sea to 3,000'</td>
<td>Dry to Wet</td>
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<td>V</td>
<td>Ipomoea pes-caprae</td>
<td>beach morning glory, pohuehue</td>
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<td>Common name</td>
<td>Scientific name</td>
<td>Plant family</td>
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<td>black wattle</td>
<td>Acacia mearnsii</td>
<td>Mimosaceae</td>
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<td>blackberry</td>
<td>Rubus argutus</td>
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<td>blue gum</td>
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<td>bocconia</td>
<td>Bocconia frutescens</td>
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<td>broad-leaved cordia</td>
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<td>broom edge, yellow bluestem</td>
<td>Andropogon virginicus</td>
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<td>buffalograss</td>
<td>Cenchrus ciliaris</td>
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<td>butterfly bush, smoke bush</td>
<td>Buddleia madagascariensis</td>
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<td>cats claw, Mysore thorn, wait-a-bit</td>
<td>Caesalpinia decapetala</td>
<td>Caesalpiniaceae</td>
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<td>common velvet grass, Yorkshire fog</td>
<td>Holcus lanatus</td>
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<td>fire tree, faya tree</td>
<td>Myrica faya</td>
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<td>ivy gourd, scarlet-fruited gourd</td>
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<td>juniper berry</td>
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<td>fogwood, bloodwood tree</td>
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<td>melaleuca</td>
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<td>Miconia calvenscens</td>
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<td>Rubiaceae</td>
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<td>strawberry guava</td>
<td>Grevillea robusta</td>
<td>Proteaceae</td>
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<td>Psidium cattleianum</td>
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<td>sweet vernal grass</td>
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<tr>
<td>tree of heaven</td>
<td>Allanthus altissima</td>
<td>Sinarubaceae</td>
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<tr>
<td>trumpet tree, guarumo</td>
<td>Cecropia obtusifolia</td>
<td>Cecropiaceae</td>
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<tr>
<td>white ginger</td>
<td>Hedychium coronarium</td>
<td>Zingiberaceae</td>
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<td>white moho</td>
<td>Helicarpus popayanensis</td>
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<tr>
<td>yellow ginger</td>
<td>Hedychium flavescens</td>
<td>Zingiberaceae</td>
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</table>
**Common name** | **Scientific name** | **Plant family**
--- | --- | ---
Jasminum fluminense | Oleaceae
Arthrostema ciliatum | Melastomataceae
Dissois rotundifolia | Melastomataceae
Engernon karvinskianus | Asteraceae
Eucalyptus robusta | Myrtaceae
Hedychium gardnerianum | Zingiberaceae
Juncus planifolius | Juncaceae
Lophostemon confertus | Myrtaceae
Medinilla cumingi | Melastomataceae
Medinilla magnifica | Melastomataceae
Medinilla venosa | Melastomataceae
Melastoma candidum | Melastomataceae
Melinis minutiflora | Poaceae
Olea europaea | Oleaceae
Oxyspora paniculata | Melastomataceae
Panicum maximum | Poaceae
Paspalum urvillei | Poaceae
Passiflora edulis | Passifloraceae
Phormium tenax | Agavaceae
Pinus taeda | Pinaceae
Prosopis pallida | Fabaceae
Protologue glomerata | Melastomataceae
Rhodomyrtus tomentosa | Myrtaceae
Schefflera actinophylla | Araliaceae
Syzygium jambos | Myrtaceae
Australian blackwood | Acacia melanoxylon
Australian tree fern | Cyathea cooperi
Baggar's fern, Spanish needle | Bidens pilosa
California grass | Brachiaria mutica
Chinese banyan, Maylanan banyan | Ficus microcarpa
Chinese violet | Asystasia gangetica
Christmasberry, Brazilian pepper | Schinus terebinthifolius
Formosan koa | Acacia confusa
German ivy | Senecio mikanioides
Japanese honeysuckle | Lonicera japonica
Koster's curse | Clerodendrum hirta
Lantana | Lantana camara
Mauritius hemp | Furcraea foetida
Mexican ash, tropical ash | Fraxinus uhdei
Mexican tulip poppy | Hunnemania fumariifolia
Mules foot, Madagascar tree fern | Angiopteris evecta
New Zealand laurel, karakaraniu | Corynocarpus laevigatus
New Zealand tea | Leptospermum scoparium
Pampas grass | Cortaderia jubata
Panama rubber tree, Mexican rubber tree | Castilla elstica
Shoebutton ardisia | Ardisia elliptica
Banana poka | Passiflora mollissima
Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival. When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porous soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large. Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, its canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round. Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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1 K. Nagata, P.6
2 K. Nagata, P.9
3 Nagata, P.9
Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which perform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost. A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes. Well-drained soil is one of the most important things when planting natives as you will see in the next section.

Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

<table>
<thead>
<tr>
<th>WATER REQUIREMENT</th>
<th>WATERING FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>3x / week</td>
</tr>
<tr>
<td>Moderate</td>
<td>2x / week</td>
</tr>
<tr>
<td>Light</td>
<td>1x / week</td>
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</tbody>
</table>

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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4 Nagata, p. 6

5 Nagata, p. 8

6 Nagata, p. 8
Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.\textsuperscript{7}

**Fertilizer**

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.\textsuperscript{8}

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii’s varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

\textsuperscript{7} Bornhorst, p. 19-20

\textsuperscript{8} Nagata, p. 6
Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thorough and helpful books is Heidi Bornhorst’s book, *Growing Native Hawaiian Plants*. The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a $\frac{1}{2}$, $\frac{1}{2}$ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting.

Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from $\frac{1}{2}$ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trimm off some of the leaves to compensate for the loss.9

Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

9 Bornhorst, p.20-21
coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.
The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

**Mulch**

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii’s hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.¹⁰ Macadamia nut hulls are also easy to find and can make a nice mulch.¹¹

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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¹⁰ Bornhorst, p. 24

¹¹ Nagata, p. 7
ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

**Zone 1:** Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

**Zone 2:** Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

**Zone 3:** Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

**Zone 4:** Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

**Zone 5:** Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and function.
PLACES TO SEE NATIVES ON MAUI:
The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

1. Hoolawa Farms  
   P O Box 731  
   Haiku HI 96708  
   575-5099

2. The Hawaiian Collection  
   1127 Manu Street  
   Kula HI 96790  
   878-1701

3. Kula Botanical Gardens  
   RR4, Box 228  
   Kula HI 96790  
   878-1715

4. Maui Botanical Gardens  
   Kanaloa Avenue, Kahului  
   across from stadium  
   249-2798

5. Kula Forest Reserve  
   access road at the end of Waipoli Rd  
   Call the Maui District Office  
   984-8100

6. Wailea Point, Private Condominium residence  
   4000 Wailea Alanui, Kihei  
   public access points at Four Seasons Resort or Polo Beach  
   875-9557

7. Kahanu Gardens, National Tropical Botanical Garden  
   Alau Place, Hana HI 96713  
   248-8912

8. Kahului Library Courtyard  
   20 School Street  
   Kahului HI 96732  
   873-3097
PLACES TO BUY NATIVE PLANTS ON MAUl

1. Ho'olawa Farms
   Anna Palomino
   P O Box 731
   Haiku HI 96708
   575-5099

   * The largest and best collection of natives in the state. They will deliver, but worth the drive to go and see! Will propagate upon request

2. Kahanu Gardens
   National Tropical Botanical Garden
   Alau Place, Hana
   248-8912

3. Kihana Nursery
   1708 South Kihei Road
   Kihei HI 96753
   879-1165

4. Kihei Garden and Landscape
   Waiko Road, Wailuku
   P O Box 1058
   Puunene HI 96784
   244-3804

5. Kula Ace Hardware and Nursery
   3600 Lower Kula Road
   Kula HI 96790
   876-0734

   * many natives in stock
   * get most of their plants from Ho'olawa Farms
   * they take special requests

6. Kulamanu Farms - Ann Carter
   Kula HI 96790
   878-1801

7. Maui Nui Botanical Gardens
   Kanaloa Avenue
   (Across from stadium)
   Kahului HI 96732
   249-2798

8. Native Gardenscapes
   Robin McMillan
   1330 Lower Kimo Drive
   Kula HI 96790
   870-1421

   * grows native plants and installs landscapes including irrigation.

9. Native Hawaiian Tree Source
   1630 Pi'ilolo Road
   Makawao HI 96768
   572-6180

10. Native Nursery, LLC
    Jonathan Keyser
    250-3341

11. New Moon Enterprises - Pat Bily
    47 Kahoea Place
    Kula HI 96790
    878-2441

12. Waiakoa Tree Farm - Kua Rogoff
    Pukalani HI 96768
    Cell - 264-4166
March 28, 2012

David Taylor, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Taylor:

Thank you for your Department's letter, dated June 10, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

**Source Availability and Consumption**

We acknowledge that the property is served by a ¾-inch meter and that the demand for the proposed project would be 8,960 gallons per day. We understand that there is no additional source available to accommodate new demand on the Central Maui System and issuance of an additional or larger meter, if needed, may be delayed. We further acknowledge that domestic and irrigation calculations will be required in the building permit process to determine meter adequacy.

**System Infrastructure**

We thank you for the information on the waterline and fire hydrant infrastructure fronting the property. The applicant will submit fire flow calculations during the building permit process. The applicant will also install a backflow preventer at the site if one is not already present.

**Conservation**

The Draft Environmental Assessment (EA) will address conservation measures for the proposed project.
Pollution Prevention

The Draft EA will discuss best management practices to be implemented during the construction period to protect the underlying lao aquifer and lao Stream.

We appreciate the input provided by your Department. A copy of your Department's comment letter will be included in the Draft EA for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
Jim Niess, Maui Architectural Group
Stacy Otomo, Otomo Engineering, Inc.
April 9, 2009

Munekiyo & Hiraga, Inc.
305 High St., Suite 104
Wailuku, HI 96793

ATTN: Rowena Dagdag-Andaya, Planner

SUBJECT: Proposed Apartment Complex Sponsored by Habitat for Humanity
TMK: (2) 3-4-033:002 at 2024 Kahawai Street in Wailuku

Dear Rowena,

Thank you for allowing us to review and comment on the Early Consultation Request for the Draft Environmental Assessment (EA) Permit for the subject project. Your plans have been received and put on file.

Hawaiian Telcom, Inc. has no comment, nor do we require any additional information at this time.

We look forward to receiving the Environmental Assessment. Should you require further assistance, please call Tom Hutchison at 242-5107.

Sincerely,

[Signature]

Lynette Yoshida
Network Engineering Manager

LY/TH/sbv

CC: Engineer
BICS File # 0904-026 (3080)
March 28, 2012

Tom Hutchison
Hawaiian Telcom
60 South Church Street
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Hutchison:

Thank you for Hawaiian Telcom’s letter of April 9, 2009, responding to our request for early consultation comment for the proposed Habitat for Humanity Kahawai Condominiums project. We acknowledge that Hawaiian Telcom had no comments and note that a copy of your letter will be included in the Draft Environmental Assessment (EA). Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.

K:\DATA\Habitat\KHawái\MIEC Response\HawiTel email.doc
April 13, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag-Andaya,

Subject: Proposed Apartment Complex Sponsored by Habitat for Humanity
2024 Kahawai St.
Wailuku, Maui Hawaii
Tax Map Key: (2) 3-4-033:002

Thank you for allowing us to comment on the subject project.

In reviewing our records and information received, Maui Electric Company (MECO) has no objections to the proposed project at this time.

Should you have any questions or concerns, please call me at 871-2340.

Sincerely,

Ray Okazaki
Staff Engineer
March 28, 2012

Ray Okazaki
Maui Electric Company, Ltd.
P.O. Box 398
Kahului, Hawaii 96733-6898

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Okazaki:

Thank you for your letter of April 13, 2009, responding to our request for early consultation comments on the proposed Habitat for Humanity Kahawai Condominiums project. We acknowledge that MECO had no comments and note that a copy of your letter will be included in the Draft Environmental Assessment (EA). Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui, Inc.
The Structure and Design Committee met to conduct a preliminary review of a proposed Condominium Project by Habitat for Humanity on subject property identified as (TMK) (2) 3-4-033.002 at Kahawai Street in Wailuku.

The Committee has no objections to the construction of an apartment building however, we need a summary fact sheet of information relating to the proposed project in addition to the location maps provided. The Committee has additionally requested the following information so that they can provide meaningful comments and recommendations.

1. It is not clear whether this is a 3 story building plus parking or a 2 story building plus parking? Provide clarification.

2. 19 parking stalls for 16 units appear inadequate to meet the parking code. Please provide clarification.

3. Please specify what variances you may be requesting.

4. Please explain, how it is possible that you are doing a multi-family development where volunteers are providing the labor?

5. Who is the project architect and other project related professionals?

The Committee appreciates this opportunity to provide early comments upon receipt of additional information. As the project evolves, we look forward to providing a comprehensive review of the project along with recommendations that may be incorporated as the project evolves.

Sincerely,

WAILUKU MAIN STREET ASSOCIATION, INC.
-Tri-Isle Main Street Resource Center-

August S. Percha, Chair
Structure & Design Committee

Jocelyn A. Perreira, Executive Director
Tri-Isle Main Street Program Coordinator
March 28, 2012

Joycelyn A. Perreira, Executive Director
Wailuku Main Street Association, Inc.
Tri-Isle Main Street Resource Center
1942 Main Street, Unit 101
Wailuku, Hawaii 96793

SUBJECT: Early Consultation for the Proposed Habitat for Humanity Maui Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Ms. Perreira:

Thank you for your letter, dated April 21, 2009, providing early consultation comments on the subject project. On behalf of the applicant, Habitat for Humanity Maui, Inc., we offer the following information in response to the comments provided.

1. The proposed Kahawai Condominiums will be three (3) stories and include two (2) stories of residential development over ground floor parking. The maximum building height will be 36 feet.

2. The proposed project will provide 20 parking spaces, including one space each for one-bedroom units and two spaces for every two-bedroom unit. This is consistent with Chapter 19.36A.130, Residential mixed use development parking requirements, of the Wailuku Redevelopment Area Zoning and Development Code.

3. The following variances were granted by the Maui Redevelopment Agency at its regular meeting of August 19, 2010 and include:

   • To allow a waiver from improvements to Kahawai Street (MCC Title 16.26.3304.1, Improvements to Public Streets);

   • To allow a waiver from improvements to Lewa Place (MCC Title 16.26.3304.1, Improvements to Public Streets); and
To allow a waiver of the design guidelines for the use of wood windows (Design Guidelines).

4. Habitat of Humanity Maui, Inc. relies on volunteer labor provided by unit owners and community volunteers, in order to reduce the cost of construction so the housing remain affordable. However, the initial site work will be contracted with a licensed contractor.

5. Maui Architectural Group is the project architect. Austin, Tsutsumi & Associates, Inc. is the project’s traffic engineer and Otomo Engineering, Inc. is the civil engineer. Xamanek Researches, LLC conducted the archaeological inventory survey of the project site.

We appreciate the input provided by your organization. A copy of your comment letter will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate
X. COMMUNITY MEETING
X. COMMUNITY MEETING

To obtain broad community input into the proposed Kahawai Condominiums project, Habitat engaged in a community outreach process. Approximately 165 neighboring households in Happy Valley between Market Street and Mokuhaau Park were invited to a community meeting held on December 7, 2010 at the Living Way Church on North Market Street. The meeting invitation contained a description of the proposed project, as well as regional and property location maps and a site plan.
**MEETING MEMORANDUM**

**Date of Meeting:** December 7, 2010

**From:** Kivette Koeppe, Senior Associate

**Meeting Location:** Living Way Church, 399 North Market Street, Wailuku, HI 96793

**Subject:** Summary of Community Meeting – Habitat for Humanity Maui, Kahawai Condominium Project

**Participants:** Sherri Dodson, Executive Director, Habitat for Humanity  
Darryl Banks, President, Habitat for Humanity (Board of Directors)  
David Lundquist, Maui Architectural Group (Architect)  
Gwen Hiraga, Munekiyo & Hiraga, Inc. (MHI)  
Kivette Koeppe, MHI

See Attached Sign-in Sheet

Habitat for Humanity, Maui (Habitat) voluntarily held a community meeting in Happy Valley, Wailuku to introduce the project to the community. Meeting notices were mailed to property owners on November 17, 2010. Fifteen (15) members of the community attended the meeting. Refer to attached Attendance Sheet.

Habitat provided a brief presentation introducing the project and variances recently granted by the Maui Redevelopment Agency (MRA). The presentation ended prematurely to directly address questions from the community. The following is a summary of the observations and questions received by community members and response provided by the project team:

1. Clarification was requested with regards to the project design, specifically on-site parking, setbacks, and building height.

   **Response:** The project has been designed to meet Maui County Code requirements regarding parking, setbacks, and building height. Twenty (20) parking stalls will be provided on the property to accommodate residents. The building height will be less than 40 feet.
2. Several comments were made regarding Kahawai Street. Under present conditions, traffic and pedestrian safety are compromised due to several factors: (1) on-street parking allowed along Kahawai Street on the opposite side of the project; (2) the presence of the building on the corner of Kahawai and North Market Streets that protrudes onto Kahawai Street; and, (3) people speed regardless of the set limit or presence of speed bumps. Several residents commented that the County should be required to improve Kahawai Street to make it safer for the community.

**Response:** It was noted that the Traffic Impact Study was prepared for the proposed project. The County maintains control over the on-street parking allowance provided on Kahawai Street. Assistance was offered to approach the County on behalf of the community to request parking be eliminated from both sides of Kahawai Street. It was also noted that the project will be required to meet the County's sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

3. A question was asked regarding parking provisions for construction personnel.

**Response:** Parking for construction personnel will be provided at an off-site location (i.e., Habitat's main office on Lower Main Street) in Wailuku.

4. A statement was given that the water pressure for the neighborhood is unusually low for many households. A question was asked as to whether a new waterline would be constructed in relation to the proposed project so as not to further affect their water pressure.

**Response:** A water meter currently exists on the property, so a new water line is not proposed. Habitat will provide upgrades to this meter, if required by the County during the building permit review process. Assistance was offered to approach the County on behalf of the community regarding the low water pressure.

5. Questions were asked regarding how the project would affect current drainage conditions, and if the project would affect the existing drainage inlet located on the property near the corner of Kahawai Street and Lewa Place.

**Response:** All increases in runoff will be maintained on the property post construction. The existing drainage inlet will remain and be improved, if required by the County during the building permit review process.

6. Clarification was asked regarding grading.

**Response:** Information was provided that retaining walls and backfilling would occur near the back of the property.
7. Comments were noted that Lewa Place is a narrow roadway with no outlet, and the residents prefer the narrow design. Clarification was requested with regards to any plans to widen Lewa Place.

Response: It was explained that Lewa Place is a county road and that the Maui County Code requires widening Lewa Place. The project team previously consulted with the Fire Department, who agreed that widening would not be necessary to accommodate their trucks. Habitat sought a variance from the MRA regarding widening Lewa Place. The variance was granted at the MRA's August 19, 2010 meeting. As such, there are no plans to widen Lewa Place.

8. Concern was noted regarding a potential increase in pedestrian traffic on Lewa Place from the stairwell near the northwestern corner of the proposed building.

Response: It was clarified that a concrete wall will separate the proposed project from Lewa Place. Pedestrians exiting this stairwell will be directed along the wall on the property towards Kahawai Street.

The proposed stairwell accommodates the need for an alternative escape route in an emergency event and is required by the Maui County Code. A gate will be installed along the wall in the location of the stairwell to provide an emergency exit onto Lewa Place and can be one-way directional.

9. A question was asked as to whether the project would negatively impact their property taxes.

Response: It was noted that Habitat is proposing lower income affordable units for which the value will be well below appraised value. Also, Habitat will service the mortgage for the units.

10. A follow-up question was asked regarding Habitat not having control on the value and re-sales, and whether there will be covenants and enforcement of covenants.

Response: Habitat will improve restrictions on the sales of the units. Habitat can foreclose on the mortgages if it becomes necessary. Buyers are provided with ongoing classes regarding home maintenance and mortgage counseling.

Covenants have not yet been prepared. The project will have a resident manager who will be responsible for enforcement of covenants.

11. Questions were asked regarding the type of clientele serviced by Habitat since their mission is to provide housing to low income groups. Several concerns were noted and information was requested regarding Habitat's control mechanisms to ensure residents of Kahawai Condominiums would not negatively impact the neighborhood.
Response: Habitat indicated their clients include kapuna, disabled persons, and low income families. Habitat considers their clientele "partner families." Applicants go through a rigorous screening and counseling process. Habitat provides financial counseling for their families both before and after they obtain their own home. This relationship and service are made possible because Habitat services the mortgage, meaning partner families make their mortgage payments directly to Habitat. This allows Habitat to monitor the mortgage and continue working with families as different financial needs arise. Also, Habitat places restrictive covenants on the units, which are enforced by an on-site resident manager.

12. Several questions were asked related to the anticipated development timeline of the project.

Response: It is anticipated that the building permit process will take one (1) year. Once all approvals are obtained, construction is anticipated to be completed within a year and a half.

13. Several questions were asked relative to Habitat's mechanism for application as a candidate for consideration of the proposed project.

14. A resident expressed support for the project.

It was noted that Habitat's contact information was provided on the meeting invitation.

This concluded the community meeting.

KK:yp
Attachment
cc: Sherri Dodson, Habitat for Humanity
## Attendance Sheet

**Proposed Kahawai Condominiums**
**Community Meeting**
**Living Way Church**
**December 7, 2010**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
<th>Address</th>
<th>Telephone</th>
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<tbody>
<tr>
<td>Regina Gabacungan</td>
<td></td>
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<tr>
<td>Sylvia Kawashima</td>
<td></td>
<td></td>
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<tr>
<td>Yasuo Tanouchi</td>
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<tr>
<td>Glenn Nukai</td>
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<tr>
<td>Dawn Nukai</td>
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<tr>
<td>S. Stanley Okamoto</td>
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<td></td>
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<tr>
<td>Lawrence Makuakane</td>
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<tr>
<td>Greg De Acruz</td>
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<tr>
<td>Linny Langford</td>
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<td>Quile Teale</td>
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<tr>
<td>Kathleen Hill</td>
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<tr>
<td>Jim D. Phoenix</td>
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# HABITAT FOR HUMANITY, MAUI

## Proposed Kahawai Condominiums
Community Meeting

## Living Way Church
December 7, 2010

### Attendance Sheet

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<tr>
<th>Name</th>
<th>Organization</th>
<th>Address</th>
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<tbody>
<tr>
<td>Christian &amp; Joe Heeley</td>
<td>Resident</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warren Shimabuku</td>
<td>Resident</td>
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Aloha! Welcome to the public meeting for the proposed Kahawai Condominiums. We encourage all interested individuals and organizations to comment on the project.

To submit this comment form at tonight’s meeting, please deposit into the Comment Box. To submit this comment form by mail, please fold and staple, and affix proper postage (see reverse side for guide). We ask that written comments be submitted by December 23, 2010. For more information on the project, please contact Kivette Koepp at Munekiyo & Hiraga, Inc. by phone at (808)244-2015, or by email at planning@mhplanning.com.

Name: Jacke Agealog
Address: 2034 Kahawai St (Leina St)

Phone: ____________________________ Email: ____________________________

Comments: I attended the meeting last night with my husband. Here are my concerns:
1) Expansion of Leina Pl. → Towards the end (dead end) Leina Pl. is actually an easement through our property. It is not a private nor county Road. Therefore, without our approval nothing should be done to the area fronting our house.
2) Leina Pl. is a dead end road. We along with our neighbors do not want more vehical nor foot traffic going through this area as it is a private area. We want to maintain our privacy. With more traffic through our area there is a high chance of increased theft as was the case years prior to gating the area off. Your plans said that the exit door (on your plans) exiting onto Leina can be an emergency only exit where the usage would be less. That we hope that if your project does go through this would be the case with that exit.
3) Your project does help several needy families; however did you consider how it will impact the community regarding land tax. The community is made up of many elderly people on fixed incomes. With land tax increasing will these long time elderly residence be able to stay in the homes? This is the same thing that happened in Waialae. We hope that
4) How will you guys control the amount of added traffic in the area. Right now, it is a dangerous area especially if the cars parked along the Kiew. With more residence there will be more cars parked, and it will be more dangerous as we are currently driving on a single lane.
March 28, 2012

Jodee Agsalog
2034 Kahawai Street
Wailuku, Hawaii 96793

SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Ms. Agsalog:

Thank you for attending the community meeting on December 7, 2010, regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. We understand your concerns regarding Lewa Place and acknowledge that work related to the proposed project will not occur on the road fronting your property without your approval. The project team previously consulted with the Fire Department, who agreed that widening of Lewa Place would not be required to accommodate their trucks. Habitat sought a variance from the Maui Redevelopment Agency (MRA) regarding widening Lewa Place. The variance was granted at the MRA’s August 19, 2010 meeting. As such, there are no plans to widen Lewa Place.

2. We understand your concern regarding potential increased pedestrian traffic on Lewa Place and reduced privacy for you and your neighbors. Habitat will implement measures to minimize pedestrian traffic along Lewa Place by directing pedestrians to the project’s main entrance on Kahawai Street. A concrete wall will separate the proposed project from Lewa Place. There is a planned stairwell at the northwest corner of the proposed building, near Lewa Place. However, this stairwell is intended to serve as an alternative escape route in an emergency, as is required by the Maui County Code. Pedestrians exiting this stairwell will be directed along the wall on the property towards Kahawai Street. In addition, a gate will be installed along the wall in the location of the stairwell to provide an emergency exit onto Lewa Place and will be one-directional, for emergency exit use only.

Regarding increased vehicular traffic on Lewa Place, it is noted that the project’s
driveway entrance will be on Kahawai Street. As such, project residents, who will be provided parking on-site, will not need to drive onto Lewa Place to enter the Kahawai Condominiums.

3. We acknowledge your concern regarding property taxes in the community. In particular, we understand that there are many seniors living on fixed incomes in the community who would be challenged by higher property taxes. It is noted that Habitat is proposing affordable owner-occupied housing units for lower income households. For this reason, the proposed project is not anticipated to result in higher property values and property taxes for the surrounding community.

4. We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment Report has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.

Regarding parking, it is noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. It is also noted that the project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

[Signature]

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui
COMMENT FORM

PROPOSED KAHAWAI CONDOMINIUMS

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Name: HOWELL CHING  Address: 2132 KAHAWAI ST, AILA

Phone:  Email: howell.hi@gmail.com

Comments: concerned with lowering property value so many low income housing in the area. Kahului Terrace, Piilani, Mokuana Apartments and now this 14 unit condo.

Traffic on Kahawai is already heavy and worried there might be even more congestion near the Kahawai/LOWER MAIN STOP. Also parking on the river side of Kahawai should be banned as only one lane can be used at times.
Return Address
Howell Ching
2132 Kahawai Street
Wailuku, HI 96793

Munekiyo & Hiraga, Inc.
Attention: Kivette Koepple
305 High Street, Suite 104
Wailuku, Hawaii 96793
March 28, 2012

Howell Ching  
2132 Kahawai Street  
Wailuku, Hawaii 96793

SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033.002, Wailuku, Maui, Hawaii

Dear Mr. Ching:

Thank you for attending the community meeting on December 7, 2010, regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. We acknowledge your concern regarding lower property values in the community, particularly given that there are several other affordable housing developments in the neighborhood. Unlike several of the other affordable housing developments, the proposed Kahawai Condominiums will be home ownership units rather than rental units. In addition, although it is a commonly held belief that affordable housing developments result in lower neighboring property values, numerous studies found that this is incorrect. Property values are based on the condition of the particular property for sale and other broad, complex forces, such as overall area development and prosperity. Furthermore, it is noted that the proposed Kahawai Condominiums will transform a vacant site into an owner-occupied residential development that adds to the neighborhood landscape.

2. We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment Report has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.
Regarding parking, it is noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. It is also noted that the project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui
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Name: Glenn - Dallon Mukai  Address: 2110 Kuamoo Pl., Wailuku
Phone: 244-7187  Email: Spiikette@hawaii.rr.com
Comments: Please see attachment (7 pages)
Return Address

Glenn & Dawn Mukai
2110 Kuamoo Place
Wailuku, Hawaii 96793

Munekiyo & Hiraga, Inc.
Attention: Kivette Koepppe
305 High Street, Suite 104
Wailuku, Hawaii 96793
Happy Valley residents attended an information hearing held by Habitat for Humanity ("Habitat") on December 7, 2010 at 5:30 p.m., at the Living Way Church, 399 N. Market Street, Happy Valley, Wailuku, expressed their comments or concerns regarding the proposed Kahawai Condominiums Project ("Project") that will be located at 2024 Kahawai Street, Wailuku. 2024 Kahawai Street is located between Market and Makua Streets in Happy Valley.

We offer these following comments and concerns that will and may affect the health, safety and welfare of the current residents in Happy Valley and proposed residents of the project.

**PARKING FOR PROJECT.**

Habitat will provide twenty (20) on-site parking stalls for their residents in their sixteen unit project to meet the minimum requirements for a project of this size. One parking stall will be assigned to each of the twelve 1-bedroom units and two parking stalls will be assigned to each of the four 2-bedroom units. There are no on-site parking stall(s) for the guest(s) or visitor(s) to the Project. Habitat stated they have no control on where any guests’ or residents’ excess vehicles will park.

Additional vehicles from the project residents or their guests will likely be parked along Kahawai Street. It can impede the flow of traffic of vehicle(s) heading in the Market Street direction and causing these vehicles to travel longer in the on-coming traffic lane.

Habitat stated there have been occasions in other of their projects where family members or others have moved in the unit with the existing owner(s). This appears to indicate there will be insufficient amount of on-site parking spaces allocated for this Project and more parking spaces should be required its guests and residents.

**PROJECT VEHICLES**

The amount of vehicles from the Project will increase traffic, cause possible traffic congestion on Kahawai Street especially in the Market Street direction and may greatly increase the possibility of traffic accidents.

**LIGHT, NOISE, ETC. INTRUSION INTO THE NEIGHBORHOOD**

The Project will be a three story structure, slightly less than forty feet in height, making the tallest structure in the neighborhood. There will be 12 one bedroom units and 4 two bedroom
units on the second and third levels and 20 parking stalls for residents on the bottom level. The Project will tower above the existing residences.

There are concerns that security lights and lights from the parking area and other areas in the Project will intrude into those nearby residences.

Any noise (whether man made, electronic, mechanical, etc.) generated from the Project or its individual units will travel a great distance throughout the neighborhood through any opening in their structure. The Project will be built at levels above the existing neighboring residences thus noises will travel a great distance throughout the neighborhood.

Loud noises travel a very long distances in Happy Valley. Case in point, we can clearly hear the music and entertainment from the Maui Arts and Cultural Center when performances are held at their open air amphitheater as well as crowd noises from the War Memorial Stadium. When we first heard the music from Maui Arts and Cultural Center, we was under the impression my immediate neighbor was having a party and playing his entertainment system at an unacceptable high decibel levels which was clearly disturbing the peace and quiet of the neighborhood.

Habitat stated they are in the process of drafting covenants for the owners of the Project that will address quiet times and other matters as well as having a resident manager on property. It appears that counseling of any condominium unit property owner(s) for the any violation(s) of any covenants will be the norm for Habitat, which appears will not resolve any on-going problems. The County of Maui nor the State of Hawaii have enacted any noise level ordinances or laws to cover these situations.

**WATER PRESSURE AND FIRE HYDRANT**

Residents in Happy Valley expressed they have been experiencing lower water pressure to their home, as houses in the neighborhood are being renovated and/or built. Habitat should be required to install a larger water line on Kahawai Street to insure the existing residences’ water pressure does not get affected as well as to adequately support its 16 units. Habitat stated there is the existing (residential) water meter on the property and if the county requires a larger water line and or water meter to support the Project’s water needs, Habitat will have to comply.

There are two (621 and 461) fire hydrants on Kahawai Street between Makua and Market Streets that are approximately 130 feet apart with the nearest fire hydrant located approximately 116 feet away from the Market Street side of the Project’s boundary. A fire hydrant should be installed at that location since it will be a high density area with the Uchida’s rentals and the Project’s 16 units.
Residents inquired if a fire hydrant will be installed for the Project since property owners in some area were required to pay for the installation of a fire hydrant to meet current code or for the safety of the neighborhood. Habitat stated they do not believe they will be required to install a fire hydrant for the Project since they will be installing a sprinkler system within their Project.

SEWER

Many of the sewer lines are old, substandard, clogging and failing. The sewer lines are being very slowly replaced in the surrounding area by the County. Habitat will be connecting to the existing sewer system and is not aware what and if any impact the Project's discharge will have on the existing sewer system.

DRAINAGE

There is an existing public drainage located on the Lewe Place and Kahawai Street corner of the Project. Habitat stated they may reconfigure and place a grating on existing public drainage and it should not affect or alter the current use or runoff into the drainage from the neighborhood.

Habitat stated that they will develop their own on-site drainage system and there will be absolutely no runoff from the Project site.

BACKFILL OF PROJECT

The Project area has a hallow tile wall on three sides of its property that was constructed many years ago by its previous owner. Habitat indicated they will backfill the property by at least two to three feet. There is the question if the construction of the wall meets current code to qualify as retaining walls since the property will be backfilled. It can be a major problem to the neighboring properties should any of the walls loses its integrity during or after the Project is completed since neighboring properties are at a lower level than the Project area.

PROPERTY TAXES AND VALUES

There is a concern the Project may impact the neighborhood property valuation and taxes. Any fluctuation in property taxes or values of their property will have an adverse effect on the property owners in the surrounding area, who many are retirees on fixed income.

PROJECT DRIVEWAY ENTRANCE

There are vehicles parked directly across Kahawai Street from the Project's proposed driveway entrance. Vehicles exiting from the Project heading toward Market Street will be within the
oncoming traffic lane for approximately 23 feet or more before their entire vehicle can be safely in their lane of travel.

RECREATION AND OR PLAY AREA FOR PROJECT RESIDENTS AND CHILDREN.

There are no common area set aside where any residents or their children to play or socialize. It appears that the resident’s children only semi-safe play area in the immediate area will be on Lewe Place which is located adjacent to the project which may impact those five residences located on Lewe Place.

KAHAWAI STREET SUBSTANDARD AND DANGEROUS.

Kahawai Street is the main traffic thoroughfare utilized by residents in the area. Trucks, vans, mini-vans, SUV, school buses, and other assorted vehicles have parked along the lao Stream side of Kahawai Street.

Currently vehicles traveling on Kahawai Street (between Makua and Market Streets where the project area will be located) toward Market Street are forced to straddle or drive left of the roadway center line (driving within the oncoming traffic lane), due to the width of their lane of travel and vehicles parked along the lao Stream side of the roadway.

Project residents and or their guests parking their vehicles on Kahawai Street will increase the length of a vehicle must travel in the oncoming traffic lane which increases the driver’s chances for a head-on collision.

I have witnessed many near misses of head on collisions, cars forced off the road, and children playing or riding bicycles barely escaping from being plowed into by vehicles that straddles or are forced to drive left of the center line of the Kahawai Street between Market and Makua Streets.

Police have been called on numerous occasions and they have not or have been very slow to respond due to impeding traffic by the parked vehicles being classified as a low priority. Police have indicated any person seen driving their vehicle, straddling, or driving left of the center line of the roadway can and may be issued a moving violation citation even if they are forced to do so by the parked vehicles along the street.

Police patrol officers recommended that the residents have the County Council enact an ordinance to make the area between Makua and Market Streets a “no parking zone” to alleviate this dangerous situation.
KAHAWAI STREET ENTRANCE FROM MARKET STREET IS DANGEROUS.

Habitat, as well as the current residents in the area, concurred that the entrance from Market Street into Kahawai Street is a very dangerous area. Habitat stated no improvements can be done to widen the street or its entrance, improve the traffic view for drivers, etc. until the current owner of the property (Uchida family) sell and/or the property is developed then the property will be subject to the current codes.

The Kahawai Street entrance from Market Street measures approximately 23 feet with a concrete/stone wall on the Piihana side and a sidewalk on the Iao Stream side of the street. The Uchida’s building is located on the Piihana side of the street entrance approximately two feet from the concrete/rock wall.

It takes approximately ten seconds of driving from Kahawai Street entrance from Market Street to the Project’s driveway entrance.

Vehicles exiting from the Project will not be able to see these vehicles entering Kahawai Street due to Uchida’s building (located at this corner of Kahawai and Market Street) blocking or limiting their view of the vehicles turning onto Kahawai Street from Market Street coming from the Piihana direction.

Vehicles turning onto Kahawai Street from Market Street, coming from Piihana direction, must drive into the oncoming (Iao Stream side) lane for approximately 50 feet before their entire vehicles are safely in its lane of travel. This is due to the sharp turn and narrowness of the entrance to Kahawai Street.

Vehicles exiting the Project and vehicles entering Kahawai Street from the Piihana direction are both forced to travel in oncoming traffic lanes before they can safely get into their own lane of travel. Vehicles leaving the Project and vehicles entering Kahawai Street simultaneously have approximately five seconds of drive time before their vehicles meet.

Renters of the Uchida’s property have, on many occasions, sent someone onto Kahawai Street to stop traffic, so their vehicles (parked on Uchida’s property) can safely exit onto Kahawai Street.

Vehicles turning onto Kahawai Street from Market Street have near misses on pedestrians walking on the project side of the Kahawai Street to Market Street. Pedestrians have caused traffic to back up on Market Street, since vehicles can’t turn onto Kahawai Street until the pedestrians clear the area.
PROJECT'S CROSSWALK

Habitat indicated they will place a crosswalk in front of the Project for its residents to safely cross to the Iao Stream side of Kahawai Street where the sidewalk is located.

Habitat indicated residents in their Project may include a wide variety of people (ie: elderly persons, kapunas, former homeless people, individual that may be physical or mental challenge, etc.). An elevator will be installed at the Project to meet ADA requirements.

The recent Market Street renovation project installed an ADA compliant sidewalk along Market Street which crosses Kahawai Street.

The proposed Project crosswalk should be constructed in such a manner that it will be ADA compliant. The existing sidewalk on Kahawai Street that the Project residents will be utilizing has an uneven surface, showing its age, and in need of repair. The sidewalk should be reconstructed to make it ADA compliant with special emphasis at the Market Street entrance where the width of the existing sidewalk is barely wide enough for one person. The Project should be required to, or contribute monies for, the reconstruction of the sidewalk to insure the health, safe, and welfare of their residents.

The location of exact placement of the proposed sidewalk may be critical to traffic and pedestrians. If located Makua Street side of the Project’s entrance, it can cause vehicles to be stopped while straddling or in the oncoming traffic lane of travel when residents utilize the crosswalk. If the crosswalk is located on the Market Street side of the project driveway, the pedestrians utilizing the sidewalk will have to contend with the vehicles coming out of the Uchida’s parking area and vehicles entering from Market Street from the Piihana direction, since those drivers will only seconds to be aware of anyone presence in the crosswalk.

CONSTRUCTION EQUIPMENT AND LABOR FOR THE PROJECT

Habitat stated that the Project will take approximately one year to complete and is aware there are limited or no area outside of the Project area for parking for their laborers or equipment. Habitat intends to transport all their workers and equipment to the project site daily.

WAIVERS

Property owners within five hundred feet of the Project should have been informed and mailed notification of any pending waivers for the Project so they could have been afforded a chance to comment on the waiver application.

Habitat stated they obtained waivers for sidewalks, curbs, and lane widening of Lewe Place, etc. from Redevelopment committee since property owners of Lewe Place indicated they prefer to
have it as is. Property owners on Lewe Place attending the Habitat information meeting were surprised and stated they were not contacted or informed of the waivers applications.

Habitat also stated they will be required to make those waived required improvements sidewalk, curbs, etc. if and when all the property owners on Kahawai Street do those improvements fronting their property. That appears to be unrealistic since those residential property owners do not own the properties in question that fronts their private residences along Kahawai Street.

Mahalo for allowing us and those attending the meeting to submit our oral and written comments and concerns and including it as part of your required report in your application process for a permit for the Kahawai Condominium Project.

**********************************
Glenn and Dawn Mukai
2110 Kuamoo Place
Wailuku, Hawaii 96793

SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. and Mrs. Mukai:

Thank you for attending the community meeting on December 7, 2010, regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. **Parking for Project**

   We acknowledge your concerns regarding parking at the proposed project. The project has been designed to meet the Wailuku Redevelopment Area Zoning and Development Code requirements regarding parking. Twenty (20) parking spaces will be provided on the property to accommodate residents. One (1) space will be provided for each one-bedroom unit and two (2) spaces will be provided for each two-bedroom unit.

   Although we are unable to address all of your concerns, the project will provide parking for residents. The project site is not large enough to accommodate guest parking. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of street parking along Kahawai Street will improve traffic conditions in the neighborhood. Regarding the potential for family members or others to move in with existing homeowners at the Kahawai Condominiums, thereby creating the need for more parking, covenants for the project will include a restriction that only one (1) family may occupy each unit.
2. **Project Vehicles**

We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment Report has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour. It is further noted that the County maintains control over the on-street parking provided on Kahawai Street. The project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

3. **Light, Noise, etc. Intrusion into the Neighborhood**

We acknowledge your concerns regarding the height of the proposed project. The proposed project will be three (3) stories and 36-feet in height. This is lower than the maximum height of 45-feet allowed by the Wailuku Redevelopment Area Zoning and Development Code. We note that there are existing two-story residences and buildings in the vicinity of the project. The Kahekili Terrace Housing Facility, located further south of the project site, includes multiple two- and three-story structures. The project has been designed to be compatible with the existing neighborhood surroundings.

Nevertheless, the applicant understands your concern about additional noise and light intrusion and its potential impact to you and other residents in the neighborhood. Habitat strives to be a good neighbor in every community it works in and will implement measures to minimize light intrusion and noise impacts. Security lighting and lighting in the parking areas will be shielded to face downward facing to minimize the impacts of light intrusion. We acknowledge the unique circumstances present in Happy Valley that result in noises traveling a long distance. There will be covenants for owners at the Kahawai Condominiums that address quiet times and other matters. A resident manager will reside on the property to enforce these covenants. Habitat has found that such covenants have been successful in minimizing problems between new and existing residents at other projects on Maui.
4. **Water Pressure and Fire Hydrant**

We acknowledge your concern regarding low water pressure in the community. The County of Maui, Department of Water Supply owns and operates the Central Maui Water System that services the community. Discussions with the County of Maui indicated that low water pressure may be due to old pipes that service Happy Valley. A water meter currently exists on the property, so a new water line is not proposed to serve the project. Habitat will provide upgrades to this meter, if required by the County during the building permit review process.

We thank you for the information on the existing fire hydrants in the neighborhood. Regarding fire hydrants, the County of Maui determines the need for new fire hydrants. Habitat has consulted with the Maui County Fire Department and Department of Water Supply during the early consultation process for the Draft Environmental Assessment (EA) for the project. Preliminarily, neither department has indicated a need for a new fire hydrant. Habitat will comply with all applicable fire safety standards. During the building permit process, the Fire Prevention Bureau will review the project plans to ensure that all standards have been met prior to construction.

5. **Sewer**

A Preliminary Engineering Report has been prepared for the proposed project, which estimates the project’s anticipated wastewater contribution will be 10,200 gallons per day (gpd). The proposed project will connect to the existing 6-inch sewerline through an existing sewer lateral on the property. Habitat will develop the proposed Kahawai Condominiums in compliance with all County standards. Habitat will provide wastewater contribution calculations when applying for the building permit for the proposed project. In addition, Habitat will fund any necessary off-site improvements to the collection system and wastewater pump stations that are required for the proposed project.

6. **Drainage**

There is an existing drainage inlet located on the property near the corner of Kahawai Street and Lewa Place. This drainage inlet will remain and be improved, if required by the County during the building permit review process. In addition, all increases in runoff attributed to new impervious surfaces will be maintained on the property through an onsite subsurface drainage system, which will be located beneath the paved parking.
7. **Backfill of Project**

According to the engineering study prepared for the project grading required for the proposed project will be mainly contained within the limits of the building pad. Grades around the perimeter of the project site will remain the same as the existing and will not affect the existing boundary walls or the adjacent properties.

8. **Property Taxes and Values**

We acknowledge your concern regarding property taxes in the community. It is noted that Habitat is proposing affordable housing units for sale to lower income households. For this reason, the proposed project is not anticipated to result in higher property values or property taxes for the surrounding community.

At the same time, the proposed project is not anticipated to negatively impact property values in the neighborhood. Although it is a commonly held belief that affordable housing developments result in lower neighboring property values, numerous studies found that this is incorrect. Property values are based on the condition of the particular property for sale and other broad, complex forces, such as overall area development and prosperity. It is noted that the proposed Kahawai Condominiums will transform a vacant site into an owner-occupied residential development that adds to the neighborhood landscape.

9. **Project Driveway Entrance**

As previously mentioned, the project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic. As previously mentioned, a request is currently pending with the County Council to eliminate parking from both sides of Kahawai Street in the vicinity of the project. Habitat believes this will significantly improve traffic conditions near the project’s driveway entrance and at the intersection of Kahawai Street and Market Street.

10. **Recreation and/or Play Area for Project Residents and Children**

Although there is no common area proposed within the project, Mokuhau Park, a County owned and operated facility, is located about half a mile west of the proposed project site on Kahawai Street. The 2.4-acre park offers a baseball field, a basketball court, and a multi-purpose field. The park would be a short walk for residents and children.
11. **Kahawai Street Substandard and Dangerous**

We understand your concerns regarding safety on Kahawai Street, a street utilized by many residents in the area. As previously mentioned, Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment Report was prepared for the proposed project to assess potential traffic impacts related to the project (see Response No. 2 above). In addition and as previously noted, Habitat supports efforts by the County of Maui to prohibit street parking on Kahawai Street in the vicinity of the project and Market Street. Habitat believes this measure will significantly improve traffic safety in the area, as vehicles will have access to the entire width of the lane and not have to cross the center line and drive within the oncoming traffic lane.

12. **Kahawai Street Entrance from Market Street is Dangerous**

Habitat shares your concern regarding safety at Kahawai Street and Market Street. As noted in your comments, Habitat does not have the ability to widen Kahawai Street, a County roadway, at its intersection with Market Street. However, Habitat is committed to addressing traffic and safety issues. As mentioned above, the project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project. In addition and as previously noted, Habitat supports efforts by the County of Maui to prohibit parking on both sides of Kahawai Street in the vicinity of the project and Market Street. The removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street.

As mentioned previously, a Traffic Assessment Report was prepared for the proposed project. The report estimated that the project would have 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.

13. **Project’s Crosswalk**

Habitat will work with the County of Maui to install a crosswalk in front of the project site to allow pedestrians to safely cross Kahawai Street. The crosswalk will be compliant with the Americans with Disabilities Act (ADA) and County of Maui standards.
14. **Construction Equipment and Labor for the Project**

As noted in your comments, parking for laborers during the construction phase will be provided at an alternate location to minimize traffic impacts to the neighborhood. Off-site parking for construction and volunteer-related personnel will be provided at Habitat’s home office located at 970 Lower Main Street in Wailuku. A van/bus will be used to transport construction and volunteer personnel to and from the project site. In addition, Habitat notes that construction-related equipment will not be parked on the street. With volunteers doing most of the construction it is now estimated that construction will take three (3) years to complete.

15. **Waivers**

County regulations governing variance applications require that a notice of application be mailed to all owners and lessees adjacent to and across the street from the subject property. Habitat did mail a notice of application to property owners adjacent to and across the street from the project site in compliance with County regulations. In addition, Sherri Dodson, Executive Director of Habitat, knocked on the doors of other residents in the neighborhood to notify them of the Maui Redevelopment Agency (MRA) hearing at which the variances were to be discussed.

The MRA did approve variances from improvements (i.e., sidewalks) to Kahawai Street and Lewa Place. Typically Habitat would have been required to improve those two (2) roads, but the variances were granted, in part, because the improvements would have been uncharacteristic of the neighborhood. There currently are no sidewalks along the north side of Kahawai Street.

To obtain broad community input into the proposed Kahawai Condominiums project beyond the MRA hearing, Habitat engaged in a separate community outreach process. Approximately 165 neighboring households between Market Street and Mokuhau Park were invited to the community meeting held on December 7, 2010.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui
COMMENT FORM

PROPOSED KAHAWAI CONDOMINIUMS

Aloha! Welcome to the public meeting for the proposed Kahawai Condominiums. We encourage all interested individuals and organizations to comment on the project.

To submit this comment form at tonight's meeting, please deposit into the Comment Box. To submit this comment form by mail, please fold and staple, and affix proper postage (see reverse side for guide). We ask that written comments be submitted by December 23, 2010. For more information on the project, please contact Kivette Koepple at Munekiyo & Hiraga, Inc. by phone at (808)244-2015, or by email at planning@mhplanning.com.

Name: Nanyuki Bradomo  Address: 274 Hakua St. Wailuku

Phone: 244-0250  Email: ____________________________

Comments: As a long time resident in Happy Valley, I have experienced following changes in our neighborhood over the years:

1. Lower water pressure
2. Sewage problems
3. Parking (i.e. illegal parking)
4. Traffic issues
5. Increase in drug and burglaries

I believe Habitat’s project will contribute to increase these problems in our neighborhood.
SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Uradomo:

Thank you for attending the community meeting on December 7, 2010, regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. We acknowledge your concern regarding low water pressure in the community. The County of Maui, Department of Water Supply owns and operates the Central Maui Water System that services the community. Discussions with the County of Maui indicated that low water pressure may be due to old pipes that service Happy Valley. A water meter currently exists on the property, so a new water line is not proposed to serve the project. Habitat will provide upgrades to this meter, if required, by the County during the building permit review process.

2. We acknowledge your concern regarding sewage problems in the neighborhood. Habitat will develop the proposed Kahawai Condominiums in compliance with all County standards, including those that relate to wastewater infrastructure. Habitat will provide wastewater contribution calculations when applying for the building permit for the proposed project. In addition, Habitat will fund any necessary off-site improvements to the collection system and wastewater pump stations that are required for the proposed project.

3. Regarding parking concerns, it is noted that the project has been designed to meet the Wailuku Redevelopment Area Zoning and Development Code requirements regarding parking. Twenty (20) parking spaces will be provided on the property to accommodate residents. One (1) space will be provided for each one-bedroom unit and two (2) spaces will be provided for each two-bedroom unit.
4. We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment Report has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour. It is further noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. The project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

5. Habitat clients, considered “partner families”, include kupuna, disabled persons, and low-income families. Applicants go through a rigorous screening and counseling process. In addition, Habitat places restrictive covenants on the units, which are enforced by an on-site resident manager. These restrictive covenants will include the prohibition of drug use. Habitat does not believe that the new homeowners at the proposed Kahawai Condominiums will create problems associated with drug use and burglaries in the community.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui
Proposed KAHAWAI CONDOMINIUM PROJECT

Name: Bruce Torda Mona Monces-Torda  Address: 2120 Kuamoo Place, Wailuku, HI

Phone: 986-8628  Email: kaylamoo@yahoo.com

Happy Valley Residents attended a hearing held by Habitat for Humanity (Habitat) on December 7, 2010 at 5:30 p.m., at the Living Way Church, 399 Market N Market Street, Happy Valley, Wailuku, expressed some of their concerns and input regarding the proposed Kahawai Condominium Project (Project) that will be located at 2024 Kahawai Street, Wailuku, HI. This location is between Market and Makua Street, on Kahawai Street in Happy Valley.

I want to voice the following concerns and comments that I feel will impact areas of our health, safety, and all residents of Happy Valley and proposed residents of the project.

PARKING FOR PROJECT

There will be 20 (twenty) on-site parking stalls for residents of the sixteen unit project, meeting the minimum requirements for this project site. For each of the twelve 1 (one) bedroom unit, one parking stall will be provided. For each of the 4 (four) 2 bedroom units, two stalls will be provided. No guest(s) or visitor(s) on-site parking stalls will be provided. My understanding is that Habitat has no control on where guests or visitors or extra vehicles owned by residents will park. As such, any additional vehicles from the project site will definitely park on Kahawai Street. This is a concern in terms of safety because of the existing design of Kahawai Street which, unlike other new neighborhoods built within the last three decades. As it stands, cars parked on the Iao Stream side of Kahawai Street pose a safety hazard as it creates a traffic flow problem on Kahawai and North Market Street. On numerous occasions, I’ve witnessed renters from the Uchida’s residence directing traffic in order for other renters to enable them to come out from their parking stalls onto Kahawai Street. This has often slowed traffic on both streets mentioned. To this end, there will be insufficient on-site parking spaces allocated for this Project. Even if more on-site parking is provided, traffic on Kahawai Street and Market Street will be impeded beyond a reasonable doubt.

Lighting, Noise, ETC.

The structure will be a three stories, just less than forty feet in height. Given the amount of total units, this Project will be the tallest structure in our neighborhood.

As a resident, I know that the overall lighting will have an impact; intrusion to adjacent homes and further out. The lighting will be a nuisance being that it’s a tall structure and will have to abide by the 2006 NEC (National Electrical Code) regarding lighting for such a structure. Case in point, the two story Kahelili Terrace Housing has lighting that is intrusive to those who have living room picture windows facing the Housing.

There are many original residents in Happy Valley. Although I grew up here the first eight years of my life, my father was a lifetime resident. In my early years, I can remember the quiet neighborhood Happy Valley once was. I moved back to Happy Valley 18 years ago when I finished my home. What struck me was the noise that never was, if you will. As a disabled person being home every day since day one when I moved back into the neighborhood, the first thing I noticed about Happy Valley was the amount of noise that resonates into the valley. As one of my physicians stated: Happy Valley is a Vortex. because you live down inside the valley. With the West Maui Mountains in your backyard, all the pollutants converge right into the valley... With the advent of growth on Maui such as Waiehu Beach Terrace, all the more so it dawned on me how much noise resonates into the valley. With my disability, I have observed noise coming from MACC amphitheater when concerts are played, the crowd noise from football games at War Memorial Football Stadium, cars and Class 8 trucks traveling on Market street, the laughter of people from anywhere in the valley in the early morning hours when people party. Often you don’t know where the party is but you know it’s there somewhere in Happy Valley because the noise IS loud! Cars having a hard...
time starting with their bose alternator belts squealing once started, roosters crowing all night long and the list can go on and on.

Any noise, mechanical, electrical, etc. generated from the project, even if it's from an individual unit will travel directly into our neighborhood and have an impact since the units will tower over current existing homes and carry over a long distance. Another case in point is just one scream from Kahekii Terrace Housing can be heard as far as Mokuhau Park. I've experienced this personally. On a day with just light winds, I've heard the sound of hydraulic pumps from trash trucks coming from the once base-yard of Maui Disposal. That excludes the picking up of the trash and when the forks on the hydraulic pivot to empty the trash bin and the operator begins shaking the can to make sure all the trash goes into the top hopper. When the latter happens, EVERYONE in Happy Valley can hear it.

I believe Habitat did state that they are in the process of drafting covenants for the owners of the Project that will address the problem of noise; quiet times and having a resident manager on property to enforce, if you will, this and other matters. It burdens me that The County of Maui and the State of Hawaii haven't enacted any noise level ordinances or laws to cover this. To this end, can it be guaranteed that noises, whether mechanical, electrical, and other noise pollution from the Project will be strictly controlled in lieu of the fact that Condo residences will eventually come to know that our neighborhood isn't one comparable to other neighborhoods where there is a Neighborhood Association to enforce rules made up by them? It is my opinion that we like it that there is no Neighborhood Association to enforce rules on us. However, we don't want any more added noise as our neighborhood is already one that has to contend with the current noise situation that I've noticed has grown louder ever since I moved back into this neighborhood. As a 100% permanent disabled person, I have had to sacrifice staying at a hotel on many occasions just to enjoy the luxury of peace and quiet. I'm living solely on 100% SSD to say the least. I'm not trying to overstate the noise we deal with. I sustained closed brain injury and my stay at the hotel is for MY peace and quiet to enjoy. Conversely, having stated the potential as well as existing noise problems, I'm speaking in behalf of all my neighbors and residents of Happy Valley.

DRAINAGE

On Kahawai Street and the northeast corner of Lewe Place is an existing drainage. Habitat stated to the effect that they may have to reconstruct and place a grating(?) on that existing public drainage and it should not affect or alter the current use into the drainage from the neighborhood.

Habitat did state that they will have their own on-site drainage so that there will be no run-off from the Project Site.

SEWER

Many of our sewer lines are old, made of sub-par material(s) compared to new ones recently placed on Market Street. Habitat is planning to connect the Project's sewer lateral to the sub-standard existing sewer system. Habitat affirmed that the existing sewer system is sufficient to handle sewage coming from the project. I question the integrity of this.

BACKFILL OF PROJECT

From the front elevation with all grub cleared, the Project site is extremely low. Habitat stated backfilling is absolutely necessary. The previous owner built hollow block wall several years ago. Since backfilling is needed, beyond a reasonable doubt the existing hollow block wall on three sides of the property has no integrity to hold the weight of backfill. I would think at least 4 feet of backfill would be needed for the Project. There would be severe consequences for the surrounding neighbors should the hollow block wall fail or loses its integrity since the surrounding neighbors would be at a lower level. There is a question whether that 3 sided hollow block wall is engineered to hold backfill while a compactor or roller is used while in the beginning stage of the project. This is something to be examined and scrutinized.

PROPERTY TAXES AND LAND VALUES
Was the Project site zoned for residential property or was it changed to accommodate the green light to build a Condominium? This is of great concern for existing owners especially those in the direct vicinity. Should there be any change in property taxes and property value because of the Kahawai Condominium Project, property owners within the area will be affected adversely. Many are retirees living on fixed income.

RECREATION FOR RESIDENTS

Nowhere in the rendering and information I saw addressed recreation area(s) set aside for children to play although Habitat, to my recollection stated this project is geared for kapunas, former homeless ones, low income people couples who qualify, physically/mentally impaired, and etc.. I would think that there certainly will be children who, by nature, want to play outdoors. I would think that there will be occupants of the units with at least a child.

KAHAWAI STREET

Kahawai Street is the main roadway residents and others use to commute in the area. Trucks, Vans, School Buses, SUV, and other means of transportation park along side the lao Stream side of this street. Because of this, vehicles have often had to cross over the center line in order to pass through this street. This is problematic between Makua Street and Market Street. First and foremost, Kahawai Street is not conducive for the current traffic flow. It's highly problematic with the cars parked directly across the Project site.

Kahawai Street is sub-standard and built long ago when it was a time when families owned only one car. Fast forward to now, where the Project site is, according to the rendering, I foresee more problems on Kahawai Street. As stated earlier regarding the amount of parking stalls for each unit, with no guest parking, where will guests park? There is the likelihood that for some condo owners, they will own more than one car. Coming in and out of the Project is a risk. Parking on the lao Stream side of Kahawai Street will, for a certainty cause side-swipe collisions because of the reduced turning radius coming into and coming out of the Project. To reiterate, I have seen cars having to cross over the center line to get to Market Street coming from Makua Street and vice-versa. If you as a driver crosses the center line because of the narrow road and you hit an on coming car, you are wrong. Often, I have had to stop behind a parked car if I'm headed down from Makua Street to the Stop Sign before Market Street. Conversely, if I'm turning into Kahawai Street from Market Street, I often encounter a car that's already coming down from mauka (mountain side) of Kahawai Street and I have to drive towards or on the narrow shoulder of Kahawai Street since the car is already headed towards me to avoid an accident even though I would be in the right. It's a Catch-22 situation if I'm already headed up on Kahawai Street with a car already coming down from Makua Street (and cars are parked adjacent to the sidewalk on the lao Stream side of Kahawai Street) where I have to not only go on the right shoulder to avoid a collision but avoid a bike rider or pedestrian who chose to walk on the right shoulder instead of on the sidewalk. As a side note, if you cross any center line while driving you can be cited for a moving violation according to one patrol officer I spoke to.

With vehicles parked on the lao Stream side of the Project, my estimate coming out of the Project onto Kahawai headed to Market Street is approximately 26 feet more or less before the entire vehicle is parallel in the right side lane. This is based on an experiment with my F-150 Ford Truck as different vehicles have different wheel bases. Residents of Uchida's property have had to often direct traffic on Kahawai Street to allow residents from that property to go onto the lao Stream side of Kahawai Street, thus blocking traffic and causing a back up on Market Street.

Even if a NO PARKING ZONE were to be enacted, this still doesn't solve the parking problem. It will only solve one segment of the whole picture the turning radius to come out of the Project. Coming into the Project presents a different problem.

ENTRY TO KAHAWAI STREET FROM MARKET STREET
Turning onto Kahawai Street from Market Street presents a segment of different problems related to the Project. For all intent and purposes, both Habitat and the residents who attended the meeting on December 7th, 2010 came to the same consensus that entry from Market Street to Kahawai Street is dangerous, particularly coming from the Piihana or Waiehe side of Market Street on to Kahawai Street. It was stated that no improvements can be done to widen this section or do anything to improve view for drivers until the current owners (Uchida family) sells the property. Another solution would be if the current owners decide to make improvements. If the Uchida Family sells the property and the new owners decide to make any improvements or develop the property, only then can the property be subject to abide by the current landcodes particularly the set back. This would greatly improve visibility. If I heard correctly, if the owners decided to sell, there is the possibility that Habitat may have an interest in obtaining that property. Correct me if I am wrong.

Vehicles coming from Piihana Side turning into Kahawai Street have to swing towards oncoming traffic in order to turn into Kahawai Street. From there, I timed that point to the Project site and took approximately 12 seconds. I have no idea how fast I was traveling, however. It's not recommended that one swings towards the oncoming traffic disregardess if there's no cars coming the opposite direction. It's possible to make the turn into Kahawai Street without doing this, but you'd still end up in the oncoming lane (lao Stream side) of vehicles coming down from Makua Street. As such, this still poses potential problems of collisions.

Another problem exists when pedestrians cross from the either direction from Uchida's side of Market Street to the bridge on Market Street. This is the norm of crossing a street legally but when pedestrians who turn into Kahawai Street and walk opposite of the provided existing sidewalk, this is potential life and death situation. I personally have had near misses driving my vehicle when people choose this path instead of the safe path of simply walking on the sidewalk on the lao Stream side of Kahawai Street. In addition to this hazard, the driver who turns into Kahawai Street from Market Street has to either stop or slow down causing a traffic back up on Market Street particularly during school hours or Pau Hana times.

A sidewalk would be placed in front of the Project for its residents to safely cross to the lao Stream side of Kahawai Street on to the current sidewalk.

As a side note, I would like to see a new sidewalk on the lao Stream side of Kahawai Street ADA compliant with Habitat footing the bill. Putting a sidewalk on the Project site is too dangerous and would put a burden on everyone who owns a home on that side of Kahawai Street.

**CONSTRUCTION EQUIPMENT AND LABOR FOR THE PROJECT**

Per Habitat, the Project would take approximately one year to complete. They acknowledged there are none or limited access to the Project area for parking of their workers and equipment and intends to transport all their workers and equipment to the project site daily.

**WAIVERS**

When a project or business is proposed in a residential area, it is my understanding that property owners within a 500 (five hundred) feet of the Project be informed of any pending waivers so that people within that specified distance could have the chance to comment on the waiver application. This was not the case as property owners on Lewe Place attending the meeting were not contacted or informed of the waiver applications. If I heard correctly, Habitat obtained waivers for sidewalks, curbs, and lane widening of Lewe Place (which I found out was actually not a private road) since the property owners of Lewe Place indicated they prefer to have it as it is. To reiterate, this was not the case; those from Lewe Place were taken aback, not informed or contacted regarding the waivers applications.

What I do not understand is improvements for sidewalks, curbs, and etc. Fronting property owners on Kahawai Street. Something to the effect was mentioned that Habitat will be required to make the waived improvements as stated in this paragraph when and if all the property owners on Kahawai Street do those improvements fronting their property. Who owns the property fronting their property ???? I think Habitat
stated that if one owner starts improvements fronting their property then up the line all would be required to follow through, then Habitat will be required to make the waived requirement improvements sidewalk, curbs, etc. This doesn’t add up to me. Again who owns the property fronting the owner’s property or properties fronting Kahawai Street? To put it simply: I know where I own my property up to the two property pins in the front elevation of my property. Why would I be required to improve outside my two pins of my front elevation when I don’t own the property outside of my front elevation at my expense?

Thank you for allowing us to voice our concerns over the proposed Project.

**Addendum: Fire Hydrant**

There are two fire hydrants on Kahului St from Makua St to Market. These two are, I believe, your Amet, from Market St side to the project, the closest fire hydrant is too far away. It is advised that Habitat installs one to accommodate any situation.
SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. and Mrs. Torda:

Thank you for attending the community meeting on December 7, 2010, regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. **Parking for Project**

We appreciate receiving your comments on parking and safety on Kahawai Street. It is noted that the project has been designed to meet the Wailuku Redevelopment Area Zoning and Development Code (WRAZDC) requirements regarding parking. Twenty (20) parking spaces will be provided on the property to accommodate residents. One (1) space will be provided for each one-bedroom unit and two (2) spaces will be provided for each two-bedroom unit.

Although we are unable to address all of your concerns, the project will provide parking for residents. The project site is not large enough to accommodate guest parking. The County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. Vehicles will have access to the entire width of the lane and not have to cross the center line and drive within the oncoming traffic lane.

Regarding traffic, A Traffic Assessment Report has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles
exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour. The project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

2. **Light, Noise, etc.**

We acknowledge your concerns regarding the height of the proposed project. The proposed project will be three (3) stories and 36-feet in height. This is lower than the maximum height of 45-feet allowed by the WRAZDC. In addition, there are existing two-story residences and buildings in the vicinity of the project. The Kahekili Terrace Housing Facility, located further south of the project site, includes multiple two- and three-story structures. The project has been designed to be compatible with the existing neighborhood surroundings.

The applicant acknowledges your concern about additional noise and light intrusion and its potential impact to you and other residents in the neighborhood. Habitat strives to be a good neighbor in every community it works in and will implement measures to minimize light intrusion and noise impacts. Security lighting and lighting in the parking areas will be shielded to face downward so as to not travel across neighboring properties. We acknowledge the unique circumstances present in Happy Valley that results in noise traveling a long distance. There will be covenants for owners at the Kahawai Condominiums that address quiet times and other matters. A resident manager will reside on the property to enforce these covenants. Habitat has found that such covenants have been successful in minimizing problems between new and existing residents at other projects on Maui.

3. **Drainage**

There is an existing drainage inlet located on the property near the corner of Kahawai Street and Lewa Place. This drainage inlet will remain and be improved, if required by the County, during the building permit review process. In addition, all increases in runoff attributed to increases in impervious surfaces will be maintained on the property through an onsite subsurface drainage system, which will be located beneath the paved parking.
4. **Sewer**

A Preliminary Engineering Report has been prepared for the proposed project, which estimates the project's anticipated wastewater contribution will be 10,200 gallons per day (gpd). The proposed project will connect to the existing 6-inch sewerline though an existing sewer lateral on the property. Habitat will develop the proposed Kahawai Condominiums in compliance with all County standards. Habitat will provide wastewater contribution calculations when applying for the building permit for the proposed project. In addition, Habitat will fund any necessary off-site improvements to the collection system and wastewater pump stations that are required for the proposed project.

5. **Backfill of Project**

According to the engineering study prepared for the project, grading required for the proposed project will be mainly contained within the limits of the building pad. Grades around the perimeter of the project site will remain the same as the existing and will not affect the existing boundary walls or the adjacent properties.

6. **Property Taxes and Values**

The project site is zoned "Commercial Mixed-Use District" by the Wailuku Redevelopment Area Zoning and Development Code. Multi-family dwelling units are identified as a principal permitted use in this zone. As such, Habitat did not apply for a Change in Zoning for the proposed project.

We acknowledge your concern regarding property taxes in the community. It is noted that Habitat is proposing affordable housing units for sale to lower income households. For this reason, the proposed project is not anticipated to result in higher property values or property taxes for the surrounding community.

At the same time, the proposed project is not anticipated to negatively impact property values in the neighborhood. Although it is a commonly held belief that affordable housing developments result in lower neighboring property values, numerous studies found that this is incorrect. Property values are based on the condition of the particular property for sale and other broad, complex forces, such as overall area development and prosperity. It is noted that the proposed Kahawai Condominiums will transform a vacant site into an owner-occupied residential development that adds to the neighborhood landscape.
7. **Recreation for Residents**

As noted in your comments, families with children may reside at the proposed project. Although common area is not provided within the project, Mokuhaun Park, a County owned and operated facility, is located less than half a mile west of the proposed project site on Kahawai Street. The 2.4-acre park offers a baseball field, a basketball court, and a multi-purpose field. The park would be a short walk for residents and children.

8. **Kahawai Street**

We understand your concerns regarding safety on Kahawai Street, a street utilized by many residents in the area. Habitat shares your concerns regarding safety for residents in the community as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. As previously mentioned, parking will be provided for residents. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes this measure will significantly improve traffic safety in the area, as vehicles will have access to the entire width of the lane and not have to cross the center line and drive within the oncoming traffic lane. As you note in your comments, this is just one approach to address the traffic and parking concerns. The project will be required to meet the County's sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic. In addition, Habitat will work with the County of Maui to install a crosswalk in front of the project site to provide for safe pedestrian crossing on Kahawai Street.

In compliance with the WRAZDC, the project will provide 20 parking spaces for residents. The project site is not large enough to accommodate guest parking.

In addition, a Traffic Assessment Report has been prepared for the proposed project. The report projected that the project will have an estimated 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.
9. **Entry to Kahawai Street from Market Street**

Habitat shares your concern regarding safety at Kahawai Street and Market Street. As noted in your comments, Habitat does not have the ability to widen Kahawai Street, a County roadway, at its intersection with Market Street. The property at the corner of the intersection is owned by the Uchida family. At this time, Habitat has no plans to purchase the Uchida property, if it became available for sale.

Despite the limitations to widening Kahawai Street at Market Street, Habitat is committed to addressing traffic and safety issues. As mentioned above, the project will be required to meet the County's sight distance requirements relative to ingress and egress from the project.

As stated previously, Habitat will work with the County of Maui to install a crosswalk in front of the project site to allow pedestrians to safely cross Kahawai Street. The crosswalk will be compliant with the Americans with Disabilities Act (ADA) and County of Maui standards.

We note your request that Habitat provide a new ADA compliant sidewalk on the Iao Stream side of Kahawai Street. As a nonprofit whose mission is to provide housing to those in the lower income, Habitat does not have the resources to fulfill your request.

10. **Construction Equipment and Labor for the Project**

As noted in your comments, parking for workers during the construction phase will be provided at an alternate location to minimize traffic impacts to the neighborhood. Off-site parking for construction and volunteer-related personnel will be provided at Habitat's home office located at 970 Lower Main Street in Wailuku. A van/bus will be used to transport construction and volunteer personnel to and from the project site. In addition, the applicant notes that construction-related equipment will not be parked on the street. With volunteers doing most of the construction it is now estimated that construction will take three (3) years to complete.

11. **Waivers**

County regulations governing variance applications require that a notice of application be mailed to all owners and lessees adjacent to and across the street from the subject property. Habitat did mail a notice of application to property
owners adjacent to and across the street from the project site in compliance with County regulations. In addition, Sherri Dodson, Executive Director of Habitat, knocked on the doors of other residents in the neighborhood to notify them of the Maui Redevelopment Agency (MRA) hearing at which the variances were to be discussed.

The MRA did approve variances from improvements (i.e., sidewalks) to Kahawai Street and Lewa Place. Typically Habitat would have been required to improve those two roads, but the variances were granted, in part, because the improvements would have been uncharacteristic of the neighborhood. There currently are no sidewalks along the north side of Kahawai Street.

To obtain broad community input into the proposed Kahawai Condominiums project beyond the MRA hearing, Habitat engaged in a separate community outreach process. Approximately 165 neighboring households between Market Street and Mokuhau Park were invited to the community meeting held on December 7, 2010. The meeting invitation contained a description of the proposed project, as well as regional and property location maps and a site plan.

12. **Fire Hydrant**

We thank you for the information on the existing fire hydrants in the neighborhood. Regarding fire hydrants, the County of Maui determines the need for new fire hydrants. Habitat has consulted with the Maui County Fire Department and Department of Water Supply during the Early Consultation process for the Draft Environmental Assessment for the project. Preliminarily, neither department has indicated a need for a new fire hydrant. Habitat will comply with all applicable fire safety standards. During the building permit process, the Fire Prevention Bureau will review the project plans to ensure that all standards have been met prior to construction.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at (808) 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

cc: Sherri Dodson, Habitat for Humanity Maui

K:\DATA\Habitat\KahawaiMPEC\Response\Torda.cs.doc
Attached please find our comments on the Proposed Kahawai Condominiums. We hope that you will address all of our comments when making your final decision on this project.

Sincerely,

Mr. and Mrs. Melvyn Kawashima
Residents of Makua Street

Sylvia T. Kawashima
Owner
Kilohana Sales and Services
kilohanasales@aol.com
Comments on the Proposed Kahawai Condominiums

1. It is an understanding that the construction of this condominium project will be done by Habitat for Humanity and that the construction will be done by volunteers whenever possible. Which bring up the questions: 1) If this work is done by volunteers how long will this project last and will the work be done continuously? 2) What of the heavy equipment to be used? Where will the equipment be parked when not in use? Hopefully the equipment will not be parked on street where there is hardly enough parking for the residents in this area.

2. What if any offsite improvements; such water and fire protection, sewer and electrical improvement? And what kind of traffic control will there be when these improvements are done?

3. Pedestrian traffic on Kahawai Street increased in recent years, what kind of Pedestrian safety improvements will there be whether it done by this project or the County of Maui because of this project. Sight distance will be a concern where exiting the project area, this is a concern.

4. Has there been any traffic study along N. Market and Kahawai Street? Has there been any kind of study made when the traffic was at its peak? This may not directly be a concern for this project but it should be Someone’s, i.e. the County of Maui. If this project is supposed to be something to improve the area then there should be improvements made to the area and not only to the project site. And a project such as this should not be done just because of the sponsorship of a charitable organization without considering the public’s opinions.

5. Are there ADA units planned for this project? If so, how many? Aren’t these units supposed be on the ground level for easy access and safety reasons? How many handicap parking stalls?

Submitted By: Mel & Sylvia Kawashima
Residents - Makua Street, Wailuku
Melvyn and Sylvia Kawashima
(via e-mail kilohanasales@aol.com)

SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. and Mrs. Kawashima:

Thank you for attending the community meeting on December 7, 2010 regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. As noted in your comments, construction of the project will involve work by volunteers. As such, the Kahawai Condominiums are anticipated to be completed in three (3) years. Construction will occur Monday through Saturday, excluding holidays, from 8:30 a.m. to 4:30 p.m.

Parking for workers during the construction phase will be provided at an alternate location to minimize traffic impacts to the neighborhood. Off-site parking for construction and volunteer-related personnel will be provided at Habitat’s home office located at 970 Lower Main Street in Wailuku. A van/bus will be used to transport construction and volunteer personnel to and from the project site.

The project is being designed to limit grading to the area of the building pad while the grades around the perimeter of the project site will remain the same as the existing. The use of heavy equipment is expected to be limited to the initial site work which will be contracted with a licensed contractor.

2. The proposed project currently does not include off-site improvements. As an infill project, infrastructure connections are readily available at the property and there is an existing water meter on the site that will be replaced with a 1-1/2 inch meter. If the County determines that off-site improvements are required, Habitat will fund those improvements. For example, as necessary, Habitat will fund any necessary off-site improvements to the wastewater collection system and wastewater pump stations that are required for the proposed project. Traffic mitigation measures will be implemented if off-site improvements are necessary to minimize impacts for drivers, pedestrians, and bicyclists in the vicinity.
3. Habitat shares your concern for pedestrian safety for residents in the community, as well as the future residents of the Kahawai Condominiums, who will also be walking in the neighborhood. Habitat will coordinate with the County of Maui to install a crosswalk in front of the project site to allow pedestrians to safely cross Kahawai Street. The crosswalk will be compliant with the Americans with Disabilities Act (ADA) and County of Maui standards.

The project will also be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

4. A Traffic Assessment Report has been prepared for the proposed project which analyzed peak hours of traffic in the morning and afternoon. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour. The traffic assessment did not recommend any traffic improvements.

It is further noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. As mentioned previously, the project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

5. The project will be ADA compliant. An elevator will be provided to allow for access to the second and third levels. In addition, all units within the project will be ADA adaptable. One (1) of the project’s 20 parking stalls will be reserved for handicap parking.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui

K:\DATA\Habitat\Kahawai\MF\EC\Responses\Kawashima.comments.doc
Alloha! Welcome to the public meeting for the proposed Kahawai Condominiums. We encourage all interested individuals and organizations to comment on the project.

To submit this comment form at tonight's meeting, please deposit into the Comment Box. To submit this comment form by mail, please fold and staple, and affix proper postage (see reverse side for guide). We ask that written comments be submitted by December 23, 2010. For more information on the project, please contact Kivette Koepe at Munekiyo & Hiraga, Inc. by phone at (808)244-2015, or by email at planning@mhplanning.com.

Name: Yasan Taqushi
Address: 377 Konahena St
Waikouiti 96793

Phone: 2445717 Email:

Comments: 
Re: Kahawai Condo, Project: Height of building not compatible to location. Parking of vehicle on south side of Kahawai St. Slow down traffic, slow. Traffic heading south on Market St turning right from Kahawai St. Resident of condo will change the life style of present home owners. Property surrounding condo will go down in value.
No place of resident children to play, or guest parking vehicles.
I am, Not in favor of such building in that particular place. Enough of having low income structure in Happy Valley Area.

Yasun Taqushi
SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Taguchi:

Thank you for attending the community meeting on December 7, 2010 regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. We understand your concerns regarding the proposed building height at the Kahawai Condominiums. The proposed project will be three (3) stories and 36-feet in height. This is lower than the maximum height of 45-feet allowed by the Wailuku Redevelopment Area Zoning and Development Code (WRAZDC). In addition, there are existing two-story residences and buildings in the vicinity of the project. The Kahekili Terrace Housing Facility, located further south of the project site, includes multiple two- and three-story structures. The project has been designed to be compatible with the existing neighborhood surroundings.

2. We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.

It is further noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of
parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. Vehicles will have access to the entire width of the lane and not have to cross the center line and drive within the oncoming traffic lane. The project will be required to meet the County’s sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

3. Habitat understands that you enjoy the existing character of the neighborhood and does not believe that residents at the Kahawai Condominiums will create disruptions. Habitat clients, considered “partner families”, include kupuna, disabled persons, and low-income families. Applicants go through a rigorous screening and counseling process. In addition, Habitat places restrictive covenants on the units, which are enforced by an on-site resident manager. Habitat believes that the residents of the Kahawai Condominiums will not adversely impact the neighborhood.

4. We acknowledge your concern regarding lower property values in the community. Although it is a commonly held belief that affordable housing developments result in lower neighboring property values, numerous studies found that this is incorrect. Property values are based on the condition of the particular property for sale and other broad, complex forces, such as overall area development and prosperity. It is noted that the proposed Kahawai Condominiums will transform a vacant site into an owner-occupied residential development that adds to the neighborhood landscape.

5. Although there is no common area proposed as part of the proposed project, Mokuahau Park, a County owned and operated facility, is located less than half a mile west of the proposed project site on Kahawai Street. The 2.4-acre park offers a baseball field, basketball court, and a multi-purpose field. The park would be a short walk for residents and children.

6. Regarding parking concerns, it is noted that the project has been designed to meet WRAZDC requirements regarding parking. Twenty (20) parking spaces will be provided on the property to accommodate residents. One (1) space will be provided for each one-bedroom unit and two (2) spaces will be provided for each two-bedroom unit.

Although we are unable to address all of your parking concerns, the project will provide parking for residents. The site is not large enough to accommodate guest parking.
We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui

K:\DATA\Habitat\Kahawai\MEC Response\Taguchi comments.doc
Aloha! Welcome to the public meeting for the proposed Kahawai Condominiums. We encourage all interested individuals and organizations to comment on the project.

To submit this comment form at tonight’s meeting, please deposit into the Comment Box. To submit this comment form by mail, please fold and staple, and affix proper postage (see reverse side for guide). We ask that written comments be submitted by December 23, 2010. For more information on the project, please contact Kivette Koepppe at Munekiyo & Hiraga, Inc. by phone at (808)244-2015, or by email at planning@mhplanning.com.

Name: Harry Tanoue  Address: 2131 Kuamoo Rd.

Phone: 2460949  Email: ____________________________

Comments:

1. Traffic Congestion
2. Low water pressure
3. Parking near river (dangerous for children)
4. We live in a safe, quiet neighborhood.
   So, we would like to keep it that way.
SUBJECT: Proposed Habitat for Humanity Kahawai Condominiums at TMK (2)3-4-033:002, Wailuku, Maui, Hawaii

Dear Mr. Tanoue:

Thank you for attending the community meeting on December 7, 2010 regarding the Habitat for Humanity Kahawai Condominiums and providing your comments on the proposed project. On behalf of Habitat for Humanity Maui, Inc. (Habitat), we offer the following information in response to the comments provided.

1. We appreciate receiving your concerns regarding traffic and safety on Kahawai Street and in the vicinity of the project. Habitat shares your concerns regarding safety for residents in the community, as well as the future residents of the Kahawai Condominiums project, who will also be utilizing the streets in the neighborhood. A Traffic Assessment has been prepared for the proposed project. The report estimated that the project will generate approximately 34 trips in the morning peak hour of traffic and 21 trips, worst case scenario, during the afternoon/evening peak hour. This would include 28 vehicles exiting the property in the morning peak hour and eight (8) vehicles exiting during the evening peak hour.

   It is further noted that the County maintains control over the on-street parking provided on Kahawai Street. Habitat supports efforts by the County of Maui to restrict on-street parking on Kahawai Street. Habitat believes that the removal of parking along Kahawai Street will significantly improve traffic conditions, particularly at the intersection of Market Street. The project will be required to meet the County's sight distance requirements relative to ingress and egress from the project in order to reduce potential impacts to traffic.

2. We acknowledge your concern regarding low water pressure in the community. The County of Maui, Department of Water Supply owns and operates the Central Maui Water System that services the community. Discussions with the County of Maui indicated that low water pressure may be due to old pipes that service Happy Valley. A water meter currently exists on the property, so a new water...
line is not proposed to serve the project. Habitat will provide upgrades to this meter, if required by the County during the building permit review process.

3. Habitat shares your concern for safety for children and other pedestrians. As mentioned previously, supports efforts by the County of Maui to eliminate parking on both sides of Kahawai Street to improve traffic conditions and safety in the area. In addition, Habitat will coordinate with the County of Maui to install a crosswalk in front of the project site to allow for safe crossing of Kahawai Street for children and other pedestrians. These measures will improve safety in the vicinity.

4. Habitat understands that you enjoy the safety and quiet offered in the neighborhood and believes that this project will not disrupt the existing neighborhood character. Habitat clients, considered “partner families”, include kupuna, disabled persons, and low-income families. Applicants go through a rigorous screening and counseling process. In addition, Habitat places restrictive covenants on the units, which are enforced by an on-site resident manager. These covenants include restrictions on noise levels to limit impacts to neighbors. Habitat believes that the residents of the Kahawai Condominiums will not adversely impact the neighborhood.

We appreciate your input on the proposed Kahawai Condominiums. A copy of your comment form will be included in the Draft Environmental Assessment (EA) for the proposed project. Should you have any questions, please feel free to contact me at 244-2015.

Sincerely,

Colleen Suyama
Senior Associate

CS:yp
cc: Sherri Dodson, Habitat for Humanity Maui

K:\DATA\Habitat\Kahawai\MPEC Response\Tanoue.cmres.doc
XI. REFERENCES
XI. REFERENCES


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APPENDIX A.

Project Plans
HABITAT FOR HUMANITY
KAHAWAI MULTIFAMILY

Kahawai Street & Lewa Place
Wailuku, Maui, Hawaii
TMK: (2) 5-4-085.002

PROJECT LOCATION

TITLE
SHEET

PARKING SUMMARY

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LOT COVERAGE SUMMARY

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DRAWING INDEX

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VICINITY MAP

IAD

STREAM

PROJECT LOCATION
HABITAT FOR HUMANITY
KAHAWAI MULTIFAMILY
Wailuku, Maui, Hawaii
TMK: (2) 3-4-033.002

SITE/PARKING LEVEL PLAN
SCALE 1/8" = 1'-0"
HABITAT FOR HUMANITY
KAHAWAI MULTIFAMILY
Waikiki, Maui, Hawaii
Toll: (2) 3-4-055.002
APPENDIX B.

Preliminary Engineering Report
PRELIMINARY ENGINEERING REPORT

FOR

HABITAT FOR HUMANITY
KAHAWAI MULTIFAMILY

Wailuku, Maui, Hawaii
T.M.K.: (2) 3-4-033: 002

Prepared For:
Habitat for Humanity
Wailuku, Maui, Hawaii

Prepared By:

OTOMO
ENGINEERING, INC.

January 2012
TABLE OF CONTENTS

1.0 INTRODUCTION

2.0 EXISTING INFRASTRUCTURE
   2.1 ROADWAYS
   2.2 DRAINAGE
   2.3 SEWER
   2.4 WATER
   2.5 ELECTRIC, TELEPHONE AND CABLE TV

3.0 ANTICIPATED INFRASTRUCTURE IMPROVEMENTS
   3.1 ROADWAYS
   3.2 DRAINAGE
   3.3 SEWER
   3.4 WATER
   3.5 ELECTRIC, TELEPHONE AND CABLE TV

APPENDICES
   A HYDROLOGIC CALCULATIONS
   B WASTEWATER CALCULATIONS
   C WATER DEMAND CALCULATIONS

EXHIBITS
   1 LOCATION MAP
   2 VICINITY MAP
   3 SOIL SURVEY MAP
   4 FLOOD INSURANCE RATE MAP
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 property is identified as T.M.K.: (2) 3-4-033: 002 and encompasses approximately 11,187 square feet. The project site is bordered by Kahawai Street and Iao Stream to the south, residential parcels to the north and west, and commercial properties to the east. The development plan is to construct a 16 unit three story multifamily building. The units will range from 600 square feet to 874 square feet. Associated improvements include the paved parking area on the first floor, utility connections, and landscaping.

The site is currently undeveloped and was previously graded with walls constructed around the perimeter. Grading required for the proposed project will be mainly contained within the limits of the building pad. Grades around the perimeter of the project site will generally remain the same as the existing conditions, therefore the proposed improvements will not affect the existing boundary walls or the adjacent properties.

2.0 EXISTING INFRASTRUCTURE

2.1 ROADWAYS

Kaahumanu Avenue, to the south of the project, is the major roadway linking Kahului and Wailuku. It is owned by the State of Hawaii. It is a four-lane, east-west roadway with a terminus in Wailuku town. At that point Kaahumanu Avenue turns into Main Street which is a two-lane roadway. At its terminus in Kahului, near the Maui Mall, Kaahumanu Avenue turns into Hana Highway.

Kahekili Highway, to the north of the project, is a two lane State highway which connects Wailuku and Waihee.

Market Street runs in the north-south direction to the east of the project site and connects to Kahekili Highway and Main Street. The project will be
accessed from Kahawai Street which is perpendicular to and connects to Market Street. Kahawai Street is a two lane County road with a curb and concrete sidewalk on the south side of the street. The roadway shoulder is unimproved fronting the project site.

2.2 DRAINAGE

The elevation on the site ranges in the north to south direction from an assumed elevation of 44 feet at the back of the property to 46 feet at the front along Kahawai Street, with a slope averaging approximately 1.5%. According to Panel No. 150003 0391E of the Flood Insurance Rate Maps, with a revised date of September 25, 2009, the project site is situated in Flood Zone X (protected by levee) (See Exhibit 4). Flood Zone X (protected by levee) are areas protected by levees from 1% annual chance flood.

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 lao cobbly silty clay (lbB) has a profile like lao clay except for the texture of the surface layer and the content of cobblestones.

Presently, runoff from the project site sheet flows in the south to north direction towards the back of the property and is generally contained by the existing walls along the property boundary. It is estimated that the present 50-year, 1-hour runoff from the project site is 0.31 cfs and 261 cf of runoff volume.

2.3 SEWER

There is an existing 6-inch sewerline on Lewa Place to the west of the property which gravity flows towards Market Street. There is an existing sewer service lateral near the north west corner of the property connecting to the 6-inch line. Sewer from the project site will flow to a series of collection systems and is transported to the Kahului Wastewater Treatment Plant in Naska.

According to the Wastewater Reclamation Division, County of Maui, the County is assessing sewer fees of $1,165.35/unit for multi-family projects in this area. The Kahului Wastewater Reclamation Facility has a capacity of 7.9 million gallons per day (mgd). As of March 2010, the average daily flow into the Kahului Wastewater Reclamation Facility is approximately 4.9 mgd. However, according to the Wastewater Reclamation Division, County of Maui, the total allocation, including projects already permitted, is 6.95 mgd.
2.4 WATER

Domestic water and fire flow is being provided by the County's water system. The property is currently serviced by an existing 3/4" water meter which is connected to an existing 8" waterline along Kahawai Street. Fire protection is provided by the same existing 8" waterline fronting the project site. There is an existing fire hydrant fronting the adjacent parcel approximately 40 feet away. The domestic water and fire flow for this area are provided by the 3.0 M.G. Mokuhau tank and wells in Happy Valley at approximately elevation 360 feet mean sea level.

2.5 ELECTRIC, TELEPHONE AND CABLE TV

There are existing overhead electrical, cable and telephone lines which are located along Kahawai Street that services the area.

3.0 ANTICIPATED INFRASTRUCTURE IMPROVEMENTS

3.1 ROADWAYS

Access to the project will be from a proposed driveway along Kahawai Street. The project driveway will have a minimum width of 18 feet. There will be twenty onsite parking stalls which will meet the number and size requirements set forth by the Wailuku Redevelopment Area Zoning and Development Code and the Maui County Code. Based on the Traffic Assessment prepared for the project, a Traffic Impact Assessment Report is not required since the project does not meet the minimum trip generation criteria of 100 new trips in the peak direction.

A variance to waive the County requirement to construct a sidewalk fronting the project site is being requested to the Maui Redevelopment Agency with the condition that the project include a crosswalk to the existing sidewalk on the south side of Kahawai Street and construct an ADA accessible curb ramp at this location.

3.2 DRAINAGE

The post development runoff from the project site is estimated to be 1.17 cfs and 629 cf of runoff volume, which is an increase of 0.86 cfs and 368 cf of runoff volume over existing conditions. The project site will be graded to maintain the existing runoff pattern with a majority of the runoff sheet flowing
around the building towards the back of the property. All onsite runoff will be collected by catch basins located within the interior parking and landscaped areas. The runoff will be conveyed to an onsite subsurface drainage system, which will be located beneath the paved parking. The subsurface drainage system consists of a perforated drainline embedded in crushed rock which will be wrapped with a layer of filter fabric. Surface runoff entering the perforated pipe will be allowed to infiltrate into the ground. The drainage system will have a storage volume of approximately 730 cf which is greater than the post development surface runoff volume generated from a 50-year storm. Overflow from the onsite drainage system will be allowed to continue downstream.

The design intent of the project will be to limit the need for extensive grading as much as possible. Development of the project will also include implementation of site specific best management practices (BMP's) during construction to provide erosion control and minimize impacts to downstream properties. BMP's which may be implemented would include, but is not limited to:

1. Prevention of cement products, oil, fuel, and other toxic substances from falling or leaching into the water.
2. Prompt and proper disposal of all loosened and excavated soil and debris material from drainage structure work.
3. Retention of ground cover until the last possible date.
4. Stabilization of denuded areas by sodding or planting as soon as possible.
5. Early construction of drainage features.

The existing rock headwall and inlet at the southwest corner of the property will be removed and replaced with a grated inlet catch basin and continue to intercept existing surface runoff from Kahawai Street.

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 project will generate approximately 10,200 gallons per day of wastewater (See Appendix B). The wastewater generated from the project will
continue to be transported to the Kahului Wastewater Treatment Facility. According to the Wastewater Reclamation Division, the treatment plant has sufficient capacity to accommodate the additional wastewater generated from the project at this time. The project will connect to the existing sewer lateral on the east side of the property. The existing sewer lateral and main line servicing the property is adequate to meet the proposed demands.

3.4 WATER

In accordance with the Department of Water Supply’s Domestic Consumption Guidelines for commercial development, the average daily demand for the project is approximately 8,960 gallons per day (See Appendix C). The project will utilize low-flow fixtures as part of the water conservation measure. Fire flow demand for a multi-family development is 2,000 gallons per minute for a 2 hour duration. Fire hydrants, if required will be installed with a maximum spacing of 250 feet.

The existing 8-inch waterline along Kahawai Street is capable of providing fire flow for the project. The existing 3/4" water meter will removed and a water meter upgrade an 1-1/2" meter will be requested as part of the building permit process. The meter upgrade would be secured after the required improvements are installed, inspected and accepted by the DWS. A new reduced pressure backflow preventer will be installed to meet DWS standards as part of the required improvements. The Department of Water Supply (DWS) cannot currently guarantee any additional water for the property.

3.5 ELECTRIC, TELEPHONE AND CABLE TV

The proposed electrical, telephone and cable TV distribution systems to the subject project will be installed from the existing overhead facilities currently servicing the project area. Upgrades to the facilities will be made as necessary during the building permit process. Within the project site, the electric and telephone systems will be installed in accordance with the utility companies rules and regulations.
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) = 0.15
C = 0.25

DEVELOPED CONDITIONS:

ROOF AREAS:

Infiltration (Negligible) = 0.20
Relief (Steep) = 0.08
Vegetal Cover (None) = 0.07
Development Type (Roof) = 0.55
C = 0.90

PAVED AREAS:

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

LANDSCAPE AREAS:

Infiltration (Medium) = 0.07
Relief (Flat) = 0.00
Vegetal Cover (Good) = 0.03
Development Type (Open) = 0.15
C = 0.25
DEVELOPED CONDITIONS:
- Paved Area = 0.02 Acres
- Roof Area = 0.18 Acres
- Landscaped Area = 0.06 acres
- WEIGHTED C = 0.73

B. Determine the 50-year 1-hour rainfall:
   \( i_{so} = 2.5 \text{ inches} \)

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

   Existing Condition:
   \[ T_c = 14 \text{ minutes} \]
   \[ I = 4.78 \text{ inches/hour} \]

   Developed Condition:
   \[ T_c = 6 \text{ minutes} \]
   \[ I = 6.14 \text{ inches/hour} \]

C. Drainage Area (A) = 0.26 Acres

D. Compute the 50-year storm runoff volume (Q):

\[ Q = CIA \]

Existing Conditions:
\[ Q = (0.25)(4.78)(0.26) \]
\[ = 0.31 \text{ cfs} \]

Developed Conditions:
\[ Q = (0.73)(6.14)(0.26) \]
\[ = 1.17 \text{ cfs} \]

The increase in runoff due to the proposed development is 1.17 - 0.31 = 0.86 cfs.
Hydrograph Plot

Hyd. No. 1

PRE

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<td>Reced. limb factor</td>
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Total Volume = 261 cuft

1 - Rational - 50 Yr - Qp = 0.31 cfs

![Hydrograph Graph](image)
Hydrograph Plot

Hyd. No. 3
POST

Hydrograph type = Rational
Storm frequency = 50 yrs
Drainage area = 0.3 ac
Intensity = 6.14 in
I-D-F Curve = 2-5.IDF

Peak discharge = 1.17 cfs
Time interval = 1 min
Runoff coeff. = 0.73
Time of conc. (Tc) = 6 min
Reced. limb factor = 2

Total Volume = 629 cuft

3 - Rational - 50 Yr - Qp = 1.17 cfs
APPENDIX B
WASTEWATER CALCULATIONS
WASTEWATER CALCULATIONS

Per the 2000 Wastewater Flow Standards:

Wastewater Contribution for the multi-family project = 255 gallons/day/unit
Occupancy = 2.5 persons/unit

Contribution = (16 units) x (255 gallons/day/unit) x (2.5 persons/unit)
= 10,200 gallons per day
APPENDIX C
WATER DEMAND CALCULATIONS
WATER DEMAND CALCULATIONS

Project Data:
16 Multi-family units (0.26 acres)

Per 2002 Water System Standards:
Consumption Guidelines:
Multi-Family Residential = 560 gallons/unit or 5,000 gallons/acre

Average Daily Demand (ADD) =
Multi-Family Residential = 560 x 16 units = 8,960 gallons
or
= 5,000 x 0.26 acres = 1,300 gallons
ADD = 8,960 gpd

Max. Daily Demand (1.5 x ADD) = 1.5 x 8,960 = 13,440 gpd

Max. Fire Flow = 2,000 gpm (Multi-family)
EXHIBITS

1 Location Map
2 Vicinity Map
3 Soil Survey Map
4 Flood Insurance Rate Map
REFERENCES


D. Flood Insurance Rate Maps of the County of Maui, September 2009.

E. Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui, prepared by the Department of Public Works and Waste Management, County of Maui, 1995.


APPENDIX C.

Response from U. S. Fish and Wildlife Service
In Reply Refer to:
2011-TA-0542
2012-SL-0120

Dear Ms. Suyama,

The U.S. Fish and Wildlife Service received correspondence from your office on August 22, 2011, and again on December 12, 2012, requesting agency review for the proposed Habitat for Humanity Kahawai Condominiums Project. The proposed development will involve the building of 16 condominium units housed in a three-story building measuring 36 feet in height and covering 11,187 square feet. The project site, located at 2024 Kahawai Street, was formerly occupied by a single-family residence which was demolished in the 1990's. The property is currently vacant with vegetation generally consisting of small shrubs and grasses.

Based on information you provided and pertinent information in our files, including data compiled by the Hawaii Biodiversity and Mapping Program, there are no documented observations pertaining to the occurrence of listed species or designated critical habitat within the vicinity of the proposed project. Unless the project description changes, or new information reveals that the proposed project may affect listed species in a manner or to an extent not considered, or a new species or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Endangered Species Act (16 U.S.C. 1531 et seq.) should be necessary.

If you have any questions regarding these comments please feel free to contact me using the information provided below.

Ian Bordenave
Biologist
U.S. Fish and Wildlife Service
Pacific Islands Field Office
Ecological Services, Consultations & HCP
300 Ala Moana Blvd., Suite 3-122
Honolulu, HI. 96850
Phone: (808) 792-9453
E-Mail: ian_bordenave@fws.gov
APPENDIX D.

Archaeological Assessment Survey
Archaeological Assessment Survey of an 11,187 sq. ft. parcel in Happy Valley along Kahawai Street in Wailuku Ahupua'a, Wailuku District Maui Island TMK (2) 3-4-033:002

Prepared on behalf of:

Ms. Sherri Dodson, Executive Director
Habitat for Humanity
Wailuku, Maui

Prepared by:

Xamanek Researches, LLC
Pukalani, Maui

Erik M. Fredericksen
Jennifer J. Frey

26 December 2011 (DRAFT)
Xamanek Researches, LLC conducted an Archaeological Assessment Survey of an 11,187 square foot parcel on Tax Map Key [(2)3-4-033:002]. The vacant lot is located in a developed portion of Happy Valley, Wailuku, Wailuku Ahupua‘a, Wailuku District, Maui Island.

Archaeological fieldwork took place on 16 and 20 December 2010, and 21 February 2011. Follow up checks were conducted on 21 May and 12 October 2011. Fieldwork consisted of 100% surface survey. Subsurface testing included six mechanical Backhoe test Trench (BT) excavations. Subsurface test results suggest that much of the project area has been previously disturbed. Some intact strata were encountered in deeper portions of the test trenches.

This archaeological assessment survey report was prepared following the Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD) Hawai‘i Administrative Rules (HAR 13-275-276); in compliance with Maui County guidelines, rules, and recommendations. This report records and synthesizes data gathered from the combination of background research and fieldwork results.

Archaeological monitoring may be warranted for any potential future clearing, grubbing, or grading activities on the subject parcel, because of the location of the project area. It is important to note that project plans call for the development of an affordable housing complex. Habitat for Humanity (Maui) will be undertaking the project. Given that federal funds will be utilized for this project, the Section 106 process has been initiated.
TABLE OF CONTENTS

ABSTRACT ........................................................................................................................ i
TABLE OF CONTENTS ....................................................................................................... ii
LIST OF FIGURES ........................................................................................................... ii
LIST OF PHOTOS .............................................................................................................. iii
LIST OF TABLES ............................................................................................................... iii
INTRODUCTION ............................................................................................................... 1
STUDY AREA DESCRIPTION ............................................................................................. 5
  Natural History ........................................................................................................... 5
  Flora ........................................................................................................................... 5
BACKGROUND RESEARCH ............................................................................................. 6
  Hawaiian Settlement ..................................................................................................... 6
PREVIOUS ARCHAEOLOGICAL WORK ............................................................................. 14
SETTLEMENT PATTERN AND EXPECTED FINDINGS ..................................................... 20
  Settlement Pattern Summary .................................................................................... 20
  Expected Findings ..................................................................................................... 21
FIELD METHODS ............................................................................................................. 21
ARCHAEOLOGICAL FIELD RESULTS ............................................................................ 22
SUMMARY AND CONCLUSIONS .................................................................................... 38
PROJECT MITIGATION AND RECOMMENDATIONS ...................................................... 38
REFERENCES .................................................................................................................. 39

LIST OF FIGURES

Figure 1a: Topographic map with location of the project area (in green lettering), Wailuku .......................................................... 2
Figure 1b: Topographic Map of the Project Area .............................................................. 3
Figure 2: Tax Map Key (TMK: (2) 3-4-033:002)Depicting the Project Area Location (in green) ........................................................ 4
Figure 3: 1937 R. M. Towill Co. map of Wailuku Sugar Company ..................................... 11
Figure 4: Backhoe Test Trenches 1-6 Location Map ........................................................... 23
Figure 5: Representative East Profile Drawing of BT-1 ........................................................ 24
Figure 6: Representative East Profile Drawing of BT-2 ....................................................... 26
Figure 7: Representative East Wall Profile Drawing of BT-3 ............................................. 28
Figure 8: Representative Northwest Profile Drawing of BT-4 ............................................ 30
Figure 9: Representative Southwest Profile Drawing of BT-5 .......................................... 32
Figure 10: Southeast Profile Drawing of BT-6 ................................................................. 34
LIST OF PHOTOS

Photo 1: Hungtai Sugar Mill stack in c. early 1900s .......................................................... 8
Photo 2: Photo of Market Street c. 1900. Note the wooden sidewalks before the paving of the street (Photo courtesy of the MHS) ........................................................................ 12
Photo 3: Photo of Market Street c. 1918 with curbstones and cement walkways (photo courtesy of the MHS) .................................................................................................. 13
Photo 4: Photo of Market Street in c. 1923. Note the asphalt, and curbstones (Feature A). Remnant sections of these curbstones are still in existence today (photo courtesy of the MHS) ........................................................................................................... 13
Photo 5: East profile of BT 1 ............................................................................................ 25
Photo 6: East profile of BT 2 ............................................................................................ 27
Photo 7: East profile of BT 3 ............................................................................................ 29
Photo 8: Northwest profile of BT 4 .................................................................................. 31
Photo 9: Southwest profile of BT 5 .................................................................................. 33
Photo 10: Southeast profile of BT 6 .................................................................................. 35
Photo 11: Overview of project parcel, view to the northeast........................................... 36
Photo 12: Project parcel, view to the north ................................................................. 36
Photo 13: Project parcel, view to the south ................................................................. 37
Photo 14: Project parcel with drainage in foreground, view to the northeast .......... 37

LIST OF TABLES

Table 1: Backhoe Test Trench (BT) Summary (note: m=meters) .................................... 35
INTRODUCTION

Xamanek Researches, LLC conducted an Archaeological Assessment Survey in Wailuku Ahupua’a, Wailuku District, Maui Island on Tax Map Key (TMK [2] 3-4-033:002). The following report was prepared following the Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD) Hawai‘i Administrative Rules (HAR 13-275-276-5); in compliance with Maui County guidelines, rules, and recommendations. Information has been compiled through a combination of background research and archaeological investigative results.

Archaeological fieldwork took place on 16 and 20 December 2010, and 21 February 2011. In addition, two follow up checks were carried out on 21 May and 12 October 2011. Fieldwork included a 100% pedestrian inspection of the surface, and subsurface testing of the project area utilizing a backhoe. The subject parcel is located in a portion of the residential community of Happy Valley, Wailuku. The vacant parcel contained some modern surface refuse.

Subsurface testing included six, controlled mechanical Backhoe Trench (BT) excavations. The subject parcel is located within an historic neighborhood of Wailuku, Maui. It is important to note that project plans call for the development of an affordable housing complex. Habitat for Humanity (Maui) will be undertaking the project. Given that federal funds will be utilized for this project, the Section 106 process has been initiated prior to the completion of this report.
Figure 1a: Topographic map with location of the project area (green lettering), Wailuku.
Figure 1b: Topographic Map of the Project Area.
Figure 2: Tax Map Key (TMK: 2-4-033:002) Depicting the Project Area Location (in green).
The study area lies within a portion of Wailuku Ahupua’a in Wailuku District. The subject parcel is located to the northwest of the Iao Stream flood control improvements. Kahawai Street and Lewa Place border the project along the southwestern and southeastern sides, while residential properties border the rest of the 11,187 square foot parcel.

**Natural History**

The relatively level parcel sits at an estimated 240-245 ft. above mean sea level. The general area consists of Iao Series Cobbly Silty Clay with 3-7% slopes, permeability is moderate, runoff is medium, and the erosion hazard is slight to moderate (Foote, et.al 1972). This soil type is commonly used for sugarcane cultivation, and home sites.

Annual precipitation in this portion of Maui averages between approximately 30 to 40 inches. The highest monthly rainfall occurs during the winter and spring months. Temperatures generally range from 60 to 80 degrees Fahrenheit in January to 68 to 90 degrees Fahrenheit in July. Trade winds circulate from the northeast, averaging 16 to 18 miles per hour (University of Hawaii, 1983:56).

The project area has been impacted by previous groundwork. The subject parcel consists of a vacant lot within a previously established historic neighborhood. Most of the surrounding area has been developed, or partially developed. Previous grubbing, grading, including fill episodes and alluvial deposition have affected the original natural environment.

**Flora**

Vegetation in the project area consists of drought tolerant alien plant species. The subject parcel is dominated by alien plant species such as introduced dry-land grasses and weeds. One crown flower plant was noted.
Hawaiian Settlement

Precontact Period

The ahupua'a of Wailuku is a large unit stretching around Kahului Bay from Paukukalo to Kapukaulua. It includes 'Iao Valley and the northern half of the Kahului Isthmus. This single land division comprises nearly half of the District of Wailuku, and is noted as a place where chiefs were buried and wars were fought. The word itself can be translated as “water of destruction” (Pukui, et. al., 1974, p. 225), and the name Wailuku refers to the battle that took place in the area. Wailuku District is a significant area and was referred to as such in early Hawaiian days. It was a traditional land division called Wailuku Moku, or “district” formerly known as Pū'ali Komohana Moku.

'Iao Valley and the two associated dunes on the north and south sides of the river, constituted the core area of Wailuku. This was the central place of religious and political power on Maui, which culminated during the time of Pi'ilani (c. 1600 AD). In the late precontact period warfare increased as the chiefs from Maui, O'ahu and Hawai'i vied for political and military dominance. High Chief Pi'ilani unified the districts of Maui by warfare, but after his death, his sons fought with one another – each to establish his own political control. Eventually Kiha-a Pi'ilani became victorious, seizing political control of Maui Island (Speakman, 1978, pp. 9-13). Each succeeding generation of chiefs struggled through warfare to secure their positions of political dominance.

During the reign of the last powerful paramount chief or King, Kahekili (who ruled from 1765 to 1794), Wailuku again became the site of intense warfare. Kahekili's royal residence, Kalanihale, was located in Wailuku. In the mid-1770s it was marched upon by a Big Island chief named Kalaniopu'u and his Alapa (the name given to his warriors).

There are several accounts referring to this battle to the SSE of the current project area that took place in 1776 (Fornander 1996:153-155). The Big Island King Kalaniopu'u gathered his forces and came ashore on Maui without resistance at Honua'ula, from Ke'one'o'i'o to Mākena. The Big Island regiment was known as Alapa, which consisted of several hundred highly skilled and trained men. Chaos and plunder marked the arrival of the Alapa. The Maui country people fled into the forest and mountain ravines for shelter. The Big Island forces were split so part of the army landed at Kiheipukoa, near

1 The location is thought to be near the corner of Main and High Streets.
the Kealia salt marsh between Kalepolepo and Mā'alaea. They were after the skilled warrior -King Kahekili in Wailuku.

With great courage the *Alapa* warriors crossed the isthmus of Kama'oma'o, also known as the Waikapū Common. The warriors were determined "to drink the waters of Wailuku that day". The Big Island *Alapa* regiment was considered the bravest and best. The warriors were all of equal stature and their spears of equal length. The legend represents their appearance as a gorgeous and magnificent spectacle. The *brilliant feather cloaks reflected the sunshine and the plumes of their helmets tossed in the wind*. Kahekili offered no resistance while the *Alapa* crossed the common. Instead, he distributed his forces in various directions throughout the Wailuku side of the common. Kahekili's army fell upon the *Alapa* as they entered the sandhills -southeast of Kalua, near Wailuku..."the gallant and devoted *Alapa* were literally annihilated; only two out of the eight hundred escaped alive" (Ibid).

Additional insight is given by Kamakau who explains when Kaluli *Heiau* was completed, Kaleopu'upu told Kahekili, "This is the house of your god; open the sluice gate that the fish may enter". Then, in 1776 Kalaniopu'u's army landed at Keoneo'o'i'o with their war canoes extending to Mākena at Honu'a'ula and proceeded to ravage the countryside. Additional forces combined to 800 strong. War canoes landed from Kīhepuko'a at Kealia to Kapa'ahu. The warrior's feather cloaks stood out along the plains of Pu'u'ainako (Can-trash-hill) and Kama'oma'o. King Kahekili was at Kālanihale just below Kihahale and above the plateau of Ka'ilipo at Pohakuaoakahī. It was then that Kaleopu'upu'u told Kahekili, "The fish have entered the sluice; draw in the net" (Kamakau 1992:85).

Kahekili had secretly spread his forces among the sand hills southeast of Kalua, near Wailuku. With the advantage of dune elevation providing a bird's eye view from the slopes combined with the element of surprise, Kahekili and his warriors annihilated the invading *Alapa* army. Two survivors were left alive to relay the news of the defeat to Kalaniopu'u's encampment (Fornander 1880:154). The day after the "Slaughter of the Pi'iipi'i at Kakanilua", the remaining forces of Kalaniopu'u were sent to battle Kahekili. Numerous attacks from the Big Island warriors ensued. Several years later, with aide from muskets and cannons, Kamehameha I claimed control, or unified the islands under one rule. Kahekili was said to be Kamehameha's father.

By 1786, Kahekili controlled not only Maui, but also Moloka'i, Lana'i, and O'ahu. This undisputed political control was challenged 4 years later in 1790. Kamehameha the Great made his move on Kahekili's domain, which ended in the battle of Kepaniwai², where the Maui ruler's forces were defeated. The term Kahului literally means "the winning", and the Bay takes the name because Kamehameha gathered his warriors there prior to fighting the battle in ʻlao Valley. However, Kahekili continued his hold on all of the islands until his death in 1794.

---

²*Kepaniwai* means literally "water dam" in reference to ʻlao Stream, because the stream was choked with human bodies after the slaughter there (Pukui, et. al., 1974, p. 109).
Early Post-Contact Period

The reign of Kamehameha was intertwined with the increasing presence of foreigners (haoles). The arrival of Captain Cook offshore at Kahului Bay in 1778 began the steady flow of outside influences that would forever alter the indigenous population and environment. One of the first of these influences came with missionaries, whose charge it was to save heathen souls. The first missionaries arrived in Wailuku in 1832, and the traditional religion began to wane under their influence. The Maui chiefs generously granted the missionaries use of prime property near the entrance to ‘Iao Valley, where a girls’ seminary (Central Female Boarding School) was established by Rev. Jonathan Green in 1836. Here young Hawaiian women were taught the language and customs of the foreigners, as well and their religion.

Another influence to bring change was foreign commercialism, and it came in the form of sugar production. The first sugarcane crops grown in Wailuku ahupuaʻa were harvested and processed in 1828. Kamehameha III, with the help of two Chinese technicians, established a water-powered mill. This mill was known as Hungtai Sugar Works (Photo 1), and its location was fairly close to the later location of the Wailuku Sugar Mill, which was established in 1862. Hungtai Sugar Works continued to operate until the opening of the newer mill owned by Wailuku Sugar Company.

Photo 1: Hungtai Sugar Mill stack in c. early 1900s.
The population of Wailuku ahupua'a in 1831-32 was listed as 2,256, with most of it being in the northern portion, presumably in 'lao Valley (Cordy, 1978, p. 59).

On the southern and eastern side of the 'lao Valley dunes (Pu‘uone Dunes), commercial activity took the form of cattle ranching. This sizeable area was largely used for pasturage. By as early as 1845, large herds of cattle were roaming the Kahului Isthmus (cattle had been introduced on the Big Island by Vancouver in 1793) [Barrere, 1975, p. 52]. The Maui cattle were under a royal kapu, and, consequently, could not be molested. They were so destructive to the environment that Native Hawaiian landowners protested, but to no avail (Ibid.). In addition to commercial cattle ranching, there were also brief attempts at the production of cotton in the 1830s. This endeavor met with little commercial success however3, and further impacted the landscape.

Mahele Awards

After the Mahele in 1848, much of Wailuku ahupua'a was designated as Crown Land, to be used in support of the royal “state and dignity”. In 1872 Kamehameha V died, and his sister Princess Ruth Ke‘elikolani inherited the land. She was designated as the owner of the Ka'a lands of Wailuku, the southern portion of the ahupua'a. The 'ili of Owa (comprised of 743.40 acres, LCA 420) was granted to Kuhielani, a steward to Kamehameha I. A much smaller northern section (the 'ili of Kalua - LCA 7713, Apana 23-391 acres) was awarded to Princess Ruth's half-sister, Victoria Kamamalu. In 1882, Princess Ruth sold one-half of the Crown Lands of Hawai‘i to Claus Spreckels, in order to settle her debts with him. Spreckels already held a lease for 16,000 acres of Wailuku Ahupua'a dating from 1878. Worried about what Spreckels might do with half of the Crown Lands, King Kalakaua gave him Land Grant 3343, a 24,000 acre portion of Wailuku Ahupua'a, in return for the surrender of his claim (Adler, 1966, pp. 262-264). The current project area is a portion of Land Grant 3343.

The lower portion of 'lao Valley contained some of the most productive taro land on the island, and the abundance of Land Commission Awards in the lower valley attests to the fertility of the area. There are 66 LCA's, primarily taro patch kuleana, and 39 po 'alima located between the old Wailuku Mill site and Paukukalo, on the southern side of 'lao Stream. In addition, 13 awards were made directly to individual chiefs by Kamehameha IV4.

3 The Anglican Church felt that “the Hawaiian people, freed from their service to and dependence on the chiefs should be self-supporting and thought that the encouragement of the manufacture of cloth from the superior cotton which grew luxuriantly in the islands would be a means to that end. They therefore suggested that a manufacturer be sent with sufficient machinery to get the project started. They felt that the people would continue to work with the encouragement and cooperation of the chiefs.” (Lemmon et. al., 1973, p. 2.B.3). To this end they sent Miss Lydia Brown in 1835 with “a quantity of domestic spinning apparatus' (presumably spinning wheels and a loom)” (Ibid.), and “charged with the responsibility of teaching the Hawaiian girls the arts of carding, spinning, weaving and knitting locally grown cotton and wool.” (Ibid.) As each class grew proficient enough to teach others, a new class was formed (Ibid., 2.B.4).

4 This is in contrast to the area south of 'lao Valley, in which the study parcel lies. Here there were 2 LCAs awarded - one to Victoria Kamamalu (7713), and one to Kuhielani (420). The largest portion is Grant 3343 to Claus Spreckels.
Post-1850s Period

The Reciprocity Treaty of 1876 with the United States gave a boost to the sugar industry by increasing prices. The dry eastern part of Wailuku ahupua‘a would be an attractive land area for potential sugar production if water could be brought to it. In 1880, Spreckels began construction of what is called “Spreckels’ Ditch”, located makai of the Hamakua Ditch, built earlier by Alexander and Baldwin to water their Maui Agricultural Company’s fields. The “Spreckels’ Ditch” brought Haleakala water to the arid Kahului isthmus. The ditch was 30 miles long, and delivered about 60 million gallons of water a day, and cost $500,000 to build. Spreckels also built another ditch, the Waihe‘e ditch in 1882, which tapped the water resources from the West Maui Mountains, thus bringing water to both sides of the Wailuku Commons isthmus area (Adler, 1966, pp. 48-49).

This enabled Spreckels to found Hawaiian Commercial and Sugar Company (HC&S Co) in 1882. He continued involvement in that company until 1898, when control was wrested from his hands. The parent company still bears the name of Alexander and Baldwin, the principal participants in the transfer of corporate control. The production of sugar cane continues to be an activity in the isthmus area to this day.

The environmental conditions in the lower ʻĪao Valley, which in precontact times were ideal for agricultural support of a large population, were a wide valley floor, rich alluvial soil, and a constant water supply from ʻĪao Stream. These combined with the access to Kahului Harbor, which was rich in marine resources, made this area the prime precontact location on West Maui for a political and religious center.

Lower Main Street was built along the route of an old government road, which very likely followed the course of existing transportation routes, stretching from the ocean to Wailuku Town and the inland portions of ʻĪao Valley. Nearly all of the LCA’s in this area have borders that align with this road, indicating it was an important transportation corridor at the time the kuleana were granted. This corridor follows the natural boundary between the toe of the sand dune and the alluvial deposits of the valley. The Kahului Railroad (Site 3112) track paralleled Lower Main Street, and then swung to the south and west as it made its way to the train station at the foot of Main Street.

Another route of the railroad – from Kahului Harbor to Wailuku Sugar Mill is shown on both the 1954 USGS map, and the 1937 Towill Map (Figure 3). The remnants of this old railroad bed can still be noted along Lower Main Street and Waiale Road. Railroad construction was begun in the late 1870s and continued for nearly 2 decades, as routes were added and service expanded. The railroad remained functional until October 1957. An article in The Maui News of October 15, 1957 bore the headline “Iron Horses Bow Out As Wailuku Sugar Company Discontinues Use of Railroad”. However, the railroad continued to serve other areas to the east until 1966, when it ceased operation altogether.
The commercial and residential growth of Wailuku is related, no doubt, to the growth of Kahului Railroad. After the closure of this railroad, Wailuku Town began to change. Many businesses closed, as the commercial center shifted to Kahului, but Wailuku remains the seat of County government.

In the central Maui area to the south and east development did not occur until later. During World War II, portions were used by the military. There was a large Marine Base in the area occupied by Maui Community College (name recently changed to University of Hawai‘i Maui College) and the Maui Arts and Cultural Center. After the war, several housing developments were built in Kahului (Dream City) and the Wailuku Sand Hills area.
Market Street

The current project area is located in close proximity to historic Market Street. The cut and dressed basalt edging (Site 50-50-04-6442, Feature A), which runs along portions of the concrete sidewalks along Market Street, dates back to at least 1906. A May 19, 1906 article in The Maui News titled New Concrete Sidewalks states that “work on the new concrete sidewalks of town has begun”. It also states that “a force of men at work near Kihei (are) getting out stone for the work”. It appears possible that this rock was the supply source for the basalt curbstones along the edge of sidewalks.

The following photographs depict the early streetscape of Market Street in Wailuku. An unpaved street and associated boardwalk are shown in a c. 1900 photograph (Photo 2). By at least 1918, the street had been altered. The boardwalk has been replaced with a cement sidewalk, and cut, dressed basalt curbstones are present in this photograph taken along the street (Photo 3). The street appears to have been sealed with oil in this photograph. A c. 1923 photograph depicts a paved Market Street with the associated concrete sidewalks and basalt curbstone edging (Photo 4).

Photo 2: Photo of Market Street c. 1900. Note the wooden sidewalks before the paving of the street (Photo courtesy of the MHS\(^5\)).

\(^5\) MHS – Maui Historical Society
Photo 3: Photo of Market Street c. 1918 with curbstones and cement walkways (photo courtesy of the MHS).

Photo 4: Photo of Market Street in c. 1923. Note the asphalt, and curbstones (Feature A). Remnant sections of these curbstones are still in existence today (photo courtesy of the MHS).
The earliest archaeological work in Wailuku was part of the island-wide survey of heiau (place of worship) compiled by Winslow Walker during 1928-1931. A number of heiau were listed for Wailuku. The infamous -Pihana Heiau and Haleki'i Heiau- lie on the northern side of Iao Stream atop the large dune formation. Efforts in the 1970s led to the preservation and designation of a State Monument, under the supervision of the Division of State Parks (DLNR).

Walker reported a number of additional significant heiau in Wailuku, which were allegedly consecrated by Liholiho during his visit to Maui in 1801 (Walker 1931: 146-147). At the time of Walker's survey, none of the following Wailuku heiau could be located: Keahuku, Olokua, Olopio, Mālena, Pohakuokahi, Lelemākō, Kāwelowelo, Kaulupala, Palamaihiki, and Oloolokalani (Ibid: 148).

In a prior personal communication with Mr. Charles Keau (1992), a well-respected authority on history and prehistory of Maui, provided more information about some of the heiau Walker did not find. By Mr. Keau's account, there were three heiau located in the Lower Main Street corridor from Kahului Harbor to the intersection of Lower Main and Mill Streets. One was situated across the street from the Maui Soda Company. Another was located on parcel 083 (TMK: 3-4-039) between the Maui Electric Power Station and the County of Maui Wailuku Government cemetery. A third may have been located near the Home Maid Bakery. During the construction of the parking lot next to the bakery, Mr. Keau reported that Wesley Wong, a well-known local antiquity collector, found 5 adzes of "Tahitian" style. He did not specify when this was, but thought there might still be portions of the heiau there as well as some burials. More recent archaeological work has corroborated this prediction.

**Nisei Veterans Memorial Center**

Significant archaeological findings were identified at the near corner of Lower Main Street and Waiehu Beach road during construction for the Nisei Veterans Memorial Center. The Nisei Memorial project has been underway since 1992.

In February of 1992, Xamanek Researches began an archaeological inventory survey on the approximate 2-acre parcel of land near the intersection of Lower Main and Waiehu Beach Road (Fredericksen and Fredericksen December 1992). The Kahului Railroad bed that ran the length of the property was documented (SIHP -3112). Another historic site (SIHP -3119A) was a refuse disposal area about 20 centimeters below the existing surface. Historic items were bottles and ceramics dating from the late 1800s, about the time the railroad was built and in use. A subsurface excavation that cut through
the historic site exposed a subsurface pre-Contact site designated as Site -3119B. Later, data recovery work at the site caused a revision in the site numbering system. All pre-Contact components of the site are designated as Site -3120 and the later components are listed as Site -3119.

Site -3120 consists of a large habitation site with a cluster of associated human burials. Test excavations at Site -3120 yielded a number of artifacts, including coral files, bone picks, an unfinished fishhook, and worked bone, along with large quantities of marine shell or food midden. Several fire pit features were recovered and a series of 12 radiocarbon dates were obtained. They range from the very early date (AD 233-410) to a later range of AD 1200-1740. The majority of the dates fell into a range of AD 1400 to 1700 (Fredericksen, et al., 1998).

Archaeological monitoring followed the data recovery, and at least 38 additional human burials (SIHP -4668) were located in the southwestern corner of the 2-acre parcel near the crest of the dune. A radiocarbon date from a large double posthole beneath one of the burials returned a conventional radiocarbon age of 620 +/- 50, and a calibrated date range of AD 1285-1420. The monitoring program is essentially finished at the writing of this report. Several additional burials have been identified, and project results are currently being written up (Fredericksen and Frey, in preparation).

Xamanek Researches surveyed a sand dune parcel (TMK: 3-8-007:038) in November 1992. Fourteen backhoe test trenches were excavated, along with 3 manual test units, in relatively undisturbed portions of the parcel. The makai portion of the property was impacted by the installation of a sewer line, the mid-portion by the construction of the former Kahului Railroad bed (Site -3112) and a rock crusher mill (Site -3145). An additional site has more recently been documented on the parcel consisting of a human burial within a sand mound paved with water worn cobbles and boulders (Fredericksen, November 1992, and Xamanek Researches, LLC 2010).

Central Maui

The central area of Maui, south of Ka’ahumanu Avenue, is also noted as an area with many human burial features within the sand dune complex, which stretches at least 8 miles across the isthmus. There have been a number of archaeological studies documenting human burial sites throughout Pu’uone or the sand dunes (Fredericksen et al. 1997 & 1998; Panteleo and Sinoto 1996; Rotunno-Hazuka 1994).

Xamanek Researches conducted archaeological studies at Maui Community College, Maui Central Parkway and at the Keiki Zoo Maui (Fredericksen et al 1992, 1994 and 1995). There were no significant cultural remains identified during the investigations.

Archaeological Consultants of Hawai’i conducted an archaeological survey for the Maui Arts and Cultural Center without significant findings (Kennedy 1990). Scattered human skeletal remains were identified on the surface near the Maui Arts and Cultural
Center, during a 1996 Xamanek Researches survey (SIHP 50-50-04-4211). Subsequent archaeological work indicated no additional human remains were present, and Site -4211 was somehow evaluated as “no longer significant” (Heidel, Pyle and Hammatt, January 1997: 97). Cultural Surveys Hawai`i, Inc conducted an archaeological inventory survey for the 110-acre Maui Central Park area AKA Keōpūolani Park. Additional human skeletal remains have since been identified and collected from the park (SHPD). Other historic sites noted in Maui Central Park include Site -4232, a World War II military facility, and Site -3112, the Kahului Railroad Berm. Both sites were partially preserved through incorporation into the landscaping of the Park (Ibid: 96).

In 2001 Xamanek Researches monitored the Mahalani Street improvements project. The project involved widening, upgrading, and replacing existing drain lines, replacing sidewalks, and installing a pedestrian cross walk way and light. A 15-stall parking lot was constructed and was partially monitored during this project. A previously unidentified post-Contact wall was recorded and given Site -5113.

Maui Lani Development Project Area

Early preliminary surveys in Kahului by Barrera (1976) of the 1,000 acre Maui Lani Project and the Hale Laulea Subdivision (Barrera, 1983) did not identify any sites. Neller (1984) investigated the area known as the “sand borrow site” at Maui Lani after sand with human skeletal remains was transported to a construction site in Lāhainā. Upon investigation of the borrow site, one complete in situ burial and scattered human skeletal fragments representing at least 3 individuals were displaced throughout the area.

In 1987, Xamanek Researches responded to a phone call from the Maui Police Department involving the inadvertent discovery of human skeletal remains. The archaeologists visited the “sand borrow site” to assess the situation with respect to skeletal remains reported by local residents. The disturbed, flexed burial of a young female (18 to 25 years of age) and a 4 or 5 year old sub-adult lay partially exposed in a dirt bike trail. At the request of the Police Department, the burials were removed. The presence of a shattered 4th thoracic rib and lower scapula blade on the left side, suggested that a frontal, traumatic puncture wound caused the death of the young female. The recovered burials were curated at Maui Community College until they were turned over to the State Historic Preservation Division on Maui for permanent deposition.

In 1990, the Anthropology Department of the Bishop Museum under contract to Maui Lani Partners conducted test excavation on 4 sites, which had been identified in a reconnaissance survey done in January 1990 (Rotunno and Cleghorn, February 1990). The sites included 2 parallel alignments, 2 adjacent rock mounds, and a single rock mound. These sites were determined to be of recent origin related to off-road vehicular traffic, and not archaeologically significant. The fourth site (Site 50-50-04-2797) includes the human burial site at the “sand borrow pit” in the Maui Lani golf course. The scattered

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6 The Kanaloa Avenue construction-monitoring project located a previously unidentified pre-Contact habitation area (Site 5496) along with three in situ human burials and the remains of two previously disturbed individuals (Site 5495). Both of these sites lie in the northeastern portion of Keōpuolani Park.
remains of at least 3 individuals were recovered in the upper disturbed surface layer (Rotunno-Hazuka et. al., May 1994a). Data recovery resulted in the documentation of at least 12 individuals from 10 burial features. Six of the features were preserved in situ (Rotunno-Hazuka et. al., May 1994b).

Archaeological subsurface sampling of the Maui Lani Development Phases 1 and 1A was conducted by Aki Sinoto Consulting. The objective of the work was to implement a strategy for subsurface sampling to test for the predictability of burials based on topographic features within the unmodified dune areas, and to address the deficiencies in the inventory survey (Pantaleo and Sinoto January 1996). Ninety backhoe trenches, 2 shovel probes and a manual trench were excavated at 58 locations (ibid: iii). Six previously unrecorded burials were found - 4 associated with the sand borrow site (Site -2797); and one on top of a high dune (Site -4146).

Archaeological inventory level testing proved erroneous in the sand dunes. “No predictable pattern of traditional interment of the dead based on preference for topographic features was established during the current investigation. Rather, the resultant data indicates only one concentration or complex of multiple burials at Site -2797 and isolated individual burials at the top of dunes in the highest locations in the project area” (Pantaleo and Sinoto January 1996). Subsequent archaeological monitoring of the Maui Lani residential and commercial development resulted in the discovery of hundreds of additional human burial features throughout the sand dunes.

Xamanek Researches conducted an archaeological inventory survey along the Maui Lani Parkway, Lot 11-A in 1997. A human burial site was documented and assigned SIHP 50-50-04-4401. Several other burial features are documented along the Maui Lani Parkway Development such as Sites -4368 and -4435 (Xamanek Researches files).

Wai‘ale Road Corridor

A pre-Contact human burial was found while road crews were excavating under the Ka‘ahumanu Avenue bridge crossing Wai‘ale Road (Site -4126).

Along Wai‘ale Road, which forms the western border of the Wailuku Sand Hills residential neighborhood, human burial features have been documented. Archaeological monitoring occurred for a drainage project (C. Brewer) and archaeologists identified human remains formerly disturbed by an old pipe line trench running perpendicular to the road (Site -4005). Site -3502 contains human burial features including an historic coffin burial and a disturbed burial determined to be ancient Hawaiian. Site -4067 is a habitation site associated with Site -4005, which was identified during the drainage project. Site -4068 is another habitation site with an associated cluster of human burials (Dunn and Spear 1995).

During construction for the Maui Homeless Shelter in May of 1992, 3 human burials were inadvertently discovered (Site 50-50-04-2916). These human skeletal
remains were investigated by Theresa Donham, SHPD. Skeletal remains representing an adult male were documented a grading cut, roughly 2 feet below the original surface (Burial 1). On May 21, a cranium (Burial 2) was exposed during construction of a desilting basin located along the lower slope of the dune at the southeastern corner of the project area (Donham, 1992:3). A test unit measuring 5 by 3 meters was excavated to a depth of 0.50 to 0.75 meters below the surface. 280 identifiable elements or human skeletal fragments were recovered, along with 235 non-diagnostic fragments. Two individuals were represented including an adult female, and a smaller adult individual.

In 1999, Archaeological Services Hawai‘i (ASH) conducted archaeological monitoring during the initial construction activities for the Cameron Center Expansion project. Human skeletal remains representing an adult and an infant were identified. The recovered skeletal remains were placed in a previously designated permanent burial preservation area (SIHP 50-50-04-4728).

**Wailuku Town Archaeology**

In Wailuku Town itself, Xamanek Researches conducted two inventory surveys for the Main Street Promenade Project. These two parcels are to the south of the project area and front Main Street. Historic period bottles and crockery were recovered from two large refuse pits, along with metal parts that appear to be carriage and harness items (Fredericksen and Fredericksen, 2000, 2001). The parking lot of the historic lao Theater on Market Street was the subject of an archaeological inventory survey in 2001. Historic period artifacts were located during this survey.

Xamanek Researches carried out an inventory survey of a parcel off of Central Street that now contains a senior living complex (Lokenani Hale) in 2003 (Fredericksen and Fredericksen, 2003). During the course of this survey, one historic property was identified. This site consisted of the remains of the former Nashiwa Bakery concrete foundation. Site 5484 qualified for significance under Criterion “d” of Federal and State historic preservation guidelines because of its information content. However, at the conclusion of the report, it was determined that an adequate amount of information had been obtained for this site and it was determined that it could be demolished. The State Historic Preservation Division (SHPD) reviewed the earlier inventory survey report and determined that an archaeological monitoring program would be required for this housing project (SHPD DOC NO: 0312MK02). Xamanek Researches prepared the necessary monitoring plan for the adjacent Lokenani Hale project, which SHPD subsequently approved in an April 2004 review letter (SHPD DOC NO: 0403MK11). Xamanek Researches, LLC subsequently carried out monitoring during 2005 and an additional site was documented, along with several refuse pits from the 1960s (Fredericksen, 2005). The site consisted of a c. 20-35 cm thick concentration of water worn and subangular cobbles and pebbles that was encountered on the impacted segments of Nani and Loke Streets. This compacted matrix underlies the existing road base of the trenched portions.

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7 The Nashiwa Bakery was constructed in c. 1950, and its foundation was subsequently assigned SIHP No. 50-50-04-5484.
of both streets and is interpreted as the former road/road base prior to the era of paved roads in Wailuku Town. Streets in this part of Maui were likely first paved sometime after 1925.\(^8\) This old road was designated SIHP No: 50-50-04-5763.

**Market Street**

Xamanek Researches LLC completed monitoring for the Market Street Improvements project just to the southeast of the current study area (Fredericksen and Frey, 2010). One site with three component features was identified during the monitoring program. Site 50-50-04-6442 consists of Feature A – Historic curbstones, Feature B – Historic Rock wall, and Feature C – Historic cobble roadbed. The curbstones were present within much of the Market Street project area. Portions of this feature were impacted for the new planter areas, but when individual stones were removed, they were relocated within the road corridor in sections of sidewalk that had had curbstones previously removed. The Feature B retaining wall was demolished after recordation and replaced with a concrete retaining wall. Portions of the original, unpaved Market Street roadbed (Feature C) were impacted by road construction. A few period artifacts were associated with this old roadbed. There were no significant precontact material culture remains encountered during the overall project. Feature A of Site 6442 qualifies for significance under Criterion “c” (unique curbstone construction associated with roadway improvements in the early 1900s) and Criterion “d” (information content). Features B and C qualify for significance under Criterion “d” for their information content.

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\(^8\) An article in The Maui News indicates that the County appropriated $3,000.00 to pave the Main Street Block between Market Street and Central Street in 1925 (The Maui News, 9-19-25)
Settlement Pattern Summary

Lower 'Iao Valley within Wailuku Ahupua'a was a political and religious center of West Maui. The area provides fertile lands and is not only in close proximity to wetlands but also the ocean shoreline. A sizable and successful aboriginal Hawaiian settlement was most likely present for well over eight hundred years. Aside from numerous examples gathered from oral histories and traditions, concrete archaeological evidence supports the supposition that Wailuku is a highly esteemed cultural landscape. Habitation sites, agricultural complexes, and the presence of significant heiau including two preserved heiau (Haleki'i and Pihana) sit atop the northern sand dune system, and several other significant archaeological sites have been documented throughout Wailuku.

Wailuku and upper 'Iao Valley was traditionally known as a very significant sacred area in history. The middle and upper reaches of the region were once covered with actively cultivated pond fields (lo`i) and associated tributaries or complex integrated water transport systems (including `auwai), which produced food items to support a large population. No doubt the streams also provided food sources as well as the nearby ocean, which is teeming with aquatic resources.

Coastal habitation and ceremonial sites, such as Site -3120, were occupied since at least AD 1200s (possibly earlier). Although there has not been as many studies conducted in the upper region, patterns emerge from the lower region. In general, permanent habitation and ceremonial or political center sites seem closer to the ocean and yield earlier dates than inland. This suggests early Hawaiian settlement occurred along the shoreline and moved inland as population increased. This hypothetical theory matches many other researchers and scholars. An intensification of usage occurred during the 16th century and may have peaked around the time of Pi`ilani, approximately 1600 AD.

Foreign influence brought change to the landscape and lifestyle. Cattle ranching occurred in the general area, which reshaped much of the landscape. Commercial agricultural endeavors brought several ethnic groups to work throughout the islands, including to the bustling area of Wailuku. Many plantation camps were scattered about. Raw Fish Camp was one of the camps located in central Maui. Remains from historic immigration camps and early historic homes as well as commercial buildings are located throughout the historic Wailuku corridor. World War II era sites have been documented in the region.
Expected Findings

The subject parcel appears to have been previously altered through mechanical grubbing and grading activities. It is possible that previously unidentified subsurface agricultural and/or cultural deposits may be encountered in portions of the subject parcel. Other possible subsurface material culture remains could include old building foundations, water delivery features, and/or human burials.

FIELD METHODS

Xamanek Researches LLC conducted an archaeological assessment survey for an 11,187 square foot parcel of land at TMK (2) 3-4-033:002. The subject parcel is located in Wailuku Ahupua‘a, Wailuku District, Maui Island. Archaeological fieldwork took place on 16 and 20 December 2010, and 21 February 2011. Follow up checks were conducted on 21 May and 12 November 2011. Fieldwork was carried out by Jenny Pickett, B.A., and Erik Fredericksen (SHPD Permit # 11-07), who also served as the principle investigator for this project.

Subsurface testing included six mechanical Backhoe test Trench (BT) excavations.

All backfill material was visually inspected and spot-checked with a rake and screen. Exposed side walls were examined, and impacted portions consistently spot-checked. Following the mechanical test excavations, a representative wall from the subsurface test trenches was hand scraped with a trowel to aid in documentation. The wall profiles were mapped to scale and described by Munsell soil colors and U.S Soil Conservation Service terminology. The completed excavations were photographed and backfilled. Standard recordation methods were followed in the field and all mapping was performed utilizing a hand held compass and metric survey tape measures. Photographs were taken with a digital camera. All field records and associated research material are stored at the Xamanek Researches LLC laboratory located in Pukalani, Maui.
The subsurface testing phase of this archaeological assessment survey consisted of the excavation of six backhoe test trench excavations. Maximum backhoe reach was approximately 6.2 meters. No evidence of significant cultural deposits was encountered. Visual observation of the mechanical excavation and inspection of the backfill did not yield any significant material culture remains. The subject parcel contains several episodes of fill material. The vacant lot has previously been grubbed and graded, and portions of it appeared to have been filled.
Figure 4: Backhoe Test Trenches 1-6 Location Map.
Backhoe Test Trench #1 (BT-1)

BT-1 was situated 4.5 meters east of the concrete wall. BT 1 measured 5.8 meters long, 1.0 meters wide x 2.60 meters deep. BT-1 included five distinct stratigraphic layers, recorded as follows:

Layer I  5YR2.5/2, dark reddish brown; sandy silt, decomposing organic debris, heavy rootlets, mixed with base gravel and modern debris, disturbed, contains no cultural material.

Layer II  10YR4/3, brown; sandy silt filled with water worn boulders, concrete chunks, old water line, plastic, metal fragments, modern rubbish, disturbed, contains no cultural material.

Layer III  Transition Layer: cobbles and sandy silt, disturbed, contains no cultural material.

Layer IV  7.5YR4/6, strong brown; sand, original material, contains no cultural material.

Layer V  Rock, bedrock, bottom of trench

Figure 5: Representative East Profile Drawing of BT-1.
Photo 5: East profile of BT 1.
Backhoe Test Trench #2 (BT-2)

BT-2 was situated in the center of the project area. BT-2 measured 5.4 meters long, 0.85 meters wide and 2.33 meters deep. BT-2 contained seven layers.

Layer I 5YR2.5/2, dark reddish brown; sandy silt, decomposing organic debris, heavy rootlets, mixed with base gravel and modern debris, disturbed, contains no cultural material.

Layer II 7.5YR3/5, strong brown, mixed with base gravel and sandy silt, disturbed, contains no cultural material.

Layer III 7.5YR4/2, brown, sandy silt, mottled peds of Layer IV, disturbed, contains no cultural material.

Layer IV 10YR4/6, dark yellowish brown; sandy silt, banding of brown silty sand, disturbed layer, contains no cultural material.

Layer V Transition Layer: cobbles and sandy silt disturbed, contains no cultural material.

Layer VI 7.5YR4/6 strong brown; sandy silt, original material, contains no cultural material.

Layer VII Rock, bedrock, bottom of trench.

Figure 6: Representative East Profile Drawing of BT-2.
Photo 6: East profile of BT 2.
Backhoe Test Trench #3 (BT-3)

BT-3 was placed at the northwest corner of the lot, 2.3 meters southeast from the rear concrete wall. BT-3 measures 5.6 meters long, 0.80 meters wide, and 1.60 meters deep. BT-3 contained five layers.

- **Layer I**
  5YR 2.5/2, dark reddish brown; sandy silt loam with base gravel and water worn cobbles, disturbed, contains no cultural material.

- **Layer II**
  7.5YR 2.5/2, very dark brown; sandy silt with base gravel and rubbish, modern trash, disturbed, contains no cultural material.

- **Layer III**
  10YR4/6, dark yellowish brown; sandy silt, banding of brown silty sand, compact, rocky, disturbed layer, contains no cultural material.

- **Layer IV**
  10YR5/4, yellowish brown; sandy silt, contains no cultural material.

- **Layer V**
  bedrock, end of trench.

Figure 7: Representative East Wall Profile Drawing of BT-3.
Photo 7: East profile of BT 3.
Backhoe Test Trench #4 (BT-4)

BT-4 was placed at the north corner of the lot. Surface contained modern trash. BT-4 measured 6 meters long, 0.75 meters wide and 2.5 meters deep. BT-4 contained 4 layers.

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer I</td>
<td>5YR2.5/2, dark reddish brown; sandy silt loam with base gravel and water worn cobbles, disturbed, contains no cultural material.</td>
</tr>
<tr>
<td>Layer II</td>
<td>7.5YR2.5/2, very dark brown; sandy silt with base gravel and rubbish, modern trash, disturbed, contains no cultural material.</td>
</tr>
<tr>
<td>Layer III</td>
<td>10YR4/6, dark yellowish brown; sandy silt, banding of brown silty sand, compact, rocky, disturbed layer, contains no cultural material.</td>
</tr>
<tr>
<td>Layer IV</td>
<td>10YR5/4, yellowish brown; sandy silt, contains no cultural material.</td>
</tr>
</tbody>
</table>

Figure 8: Representative Northwest Profile Drawing of BT-4.
Photo 8: Northwest profile of BT 4.
Backhoe Test Trench #5 (BT-5)

BT-5 was placed in the central east half of the lot. BT-5 measures 5.8 meters long, 0.80 meters wide, and 2 meters deep. BT-5 contained 3 layers.

Layer I
5YR 2.5/2, dark reddish brown; sandy silt, decomposing organic debris, heavy rootlets, mixed with base gravel and modern debris, disturbed, contains no cultural material. Fill.

Layer II
10YR4/6, dark yellowish brown; sandy silt, banding of brown silty sand, compact, rocky, disturbed layer, contains no cultural material.

Layer III
10YR5/4, yellowish brown; sandy silt, very large boulders and rocks, contains no cultural material.

Figure 9: Representative Southwest Profile Drawing of BT-5.
Photo 9: Southwest profile of BT 5.
Backhoe Test Trench #6 (BT-6)

BT-6 measures 6.2 meters long, 0.80 meters wide and 1.60 meters deep. BT-6 contained 5 layers.

Layer I 10YR5/4, yellowish brown; imported sand, fill material.
Layer II 7.5YR3/3, dark brown; sandy silt with base gravel and charcoal flecking, disturbed, contains no cultural material.
Layer III 7.5YR4/4, brown; silty sandy silt, disturbed, contains no cultural material.
Layer IV 10YR5/3, brown; sandy silt, disturbed, charcoal flecking, contains no cultural material.
Layer V 7.5YR5/8, strong brown; compact silt, cobbles and boulders, contains no cultural material.

Figure 10: Southeast Profile Drawing of BT-6.
Table 1: Backhoe Test Trench (BT) Summary (note: m=meters).

<table>
<thead>
<tr>
<th>BT#</th>
<th>Length</th>
<th>Width</th>
<th>Depth</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.80 m</td>
<td>1.0 m</td>
<td>2.60 m</td>
<td>Five layers (LI-Llll = disturbed), no significant cultural material located</td>
</tr>
<tr>
<td>2</td>
<td>5.40 m</td>
<td>0.85 m</td>
<td>2.33 m</td>
<td>Seven layers (LI-LV = disturbed), no significant cultural material located</td>
</tr>
<tr>
<td>3</td>
<td>5.60 m</td>
<td>0.80 m</td>
<td>1.60 m</td>
<td>Four layers (li-lill = disturbed), no significant cultural material located</td>
</tr>
<tr>
<td>4</td>
<td>6.00 m</td>
<td>0.75 m</td>
<td>2.50 m</td>
<td>Four layers (LI-III = disturbed), no significant cultural material located</td>
</tr>
<tr>
<td>5</td>
<td>5.80 m</td>
<td>0.80 m</td>
<td>2.00 m</td>
<td>Three layers (LI-II = disturbed), no significant cultural material located</td>
</tr>
<tr>
<td>6</td>
<td>6.20 m</td>
<td>0.80 m</td>
<td>1.60 m</td>
<td>Five layers (LI = fill; LII-lV = disturbed), no significant cultural material located</td>
</tr>
</tbody>
</table>
Photo 11: Overview of project parcel, view to the northeast.

Photo 12: Project parcel, view to the north.
Photo 13: Project parcel, view to the south.

Photo 14: Project parcel with drainage in foreground, view to the northeast.
SUMMARY AND CONCLUSIONS

A complete surface inspection was conducted and six mechanical backhoe test trenches were excavated in order to help assess the surface and subsurface conditions throughout the subject parcel. Efforts were made to identify the presence or absence of significant cultural deposits. The results of our survey suggest that the majority of the subject parcel has been previously impacted during land disturbance activities associated with prior development.

PROJECT MITIGATION AND RECOMMENDATIONS

Given the results of this archaeological survey, no further archaeological work beyond the assessment level is recommended for the subject area. However, precautionary monitoring may be warranted, given the location of the subject parcel.
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*An Archaeological Inventory Survey for Main Street Promenade, Wailuku Ahupua’a, Wailuku District, Maui Island (TMK: 3-4-13: 96 and 100). Prepared for Lisa and Robert Joslin of Wailuku, Maui by Xamanek Researches, Pukalani, Maui.*

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APPENDIX D-1.

State Historic Preservation Division Letter
May 21, 2009

Ms. Rowena Dagdag-Andaya, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Maui, HI 96793

Dear Ms. Dagdag-Andaya:

SUBJECT: Section 106 (NHPA) Consultation and Chapter 6E-8 (HRS) Review
Habitat for Humanity - Proposed Apartment Complex
Located at 2024 Kahawai Street
County of Maui
U.S. Department of Housing and Urban Development
Wailuku, Island of Maui, Hawaii
TMK: (2) 3-4-033:002

The SHPD acknowledges receipt of the proposed construction of an apartment complex under funding from the County of Maui and the U.S. Department of Housing and Urban Development.

There are no existing structures located on the parcel.

We concur that the determination for the proposed undertaking is "no historic properties affected."

Thank you for your time and attention. Should you have any questions regarding architectural concerns, please call Susan Tasaki, at (808) 692-8015.

Sincerely,

Nancy A. McMahon
Deputy State Historic Preservation Officer

c: U.S. Department of the Interior, National Park Service
   Frank Hays, Director, Pacific West Region-Honolulu [Frank_Hays@nps.gov]
   Melia Lane-Kamahele [Melia_Lane-Kamahele@nps.gov]
APPENDIX E.

Cultural Impact Assessment
PROPOSED KAHAWAI CONDOMINIUM PROJECT
HABITAT FOR HUMANITY
ETHNOGRAPHIC INTERVIEW

Interview with: Glenn Mukai
Interviewed by: Kivette Koeppe, Senior Associate
Munekiyo & Hiraga, Inc.

Personal Background and Geographic Identity

Mr. Glenn Mukai was born in Wailuku, Maui in 1946, and has lived the majority of his life in the Happy Valley area of Wailuku, Maui. He was raised in Happy Valley and recalls the many families that settled the area along North Market Street, including the Ambes, Levelles, Gouvcias and Ogawas.

In 1964, he graduated from Lahainaluna High School, and shortly after moved to California to attend college. In 1967, he moved to Utah in continued pursuit of his education and remained until 1969. From 1969 to 1972, he joined the United States armed services. Between 1972 and 1973, he purchased property and built his home at 2110 Kuamo Place in Happy Valley, where he continues to reside to this day.

Following his return from the service in 1972, Mr. Mukai began working for the Department of Social Services as an Income Maintenance Worker. On January 1, 1973, he obtained a position with the Department of Liquor Control, where he remained until he retired in 2002. When asked what occupies his time in retirement, he smiles and notes that he cares for his grandchildren.

Family History

Mr. Mukai’s maternal great-grandparents left Japan and moved to Maui in the late 1800’s to work as laborers for Wailuku Sugar Company. His great-grandfather passed away in 1910, and his great-grandmother passed away 13 years later in 1923.

Mr. Mukai’s maternal grandfather was born in Maui in the early 1900’s. He worked for Wailuku Sugar Company as a stonemason and helped build the Wailuku Bridge and the irrigation channels in Waihee Valley. He fondly recalls that his grandfather would leave to work and live in the valley during the week and return on the weekends. His grandmother stayed home to care for their 7 to 8 children. They lived in a home in the area of Wailuku formerly known as Fish Camp. Upon his mother’s death in 1923, Mr. Mukai’s grandfather
received a sum of $500.00 from a life insurance policy, and used these funds to purchase a piece of property in Happy Valley along Ulei Lane. He built a home on the property and rented it for a time while they continued living in Fish Camp.

Mr. Mukai’s mother was the second oldest child and was born in Wailuku in 1920-1921. After marrying, Mr. Mukai’s parents resided in a beach home in Waiehu near the Waiehu golf course. In 1948, she moved her family back to Happy Valley and lived in the home built by her father on the property located along Ulei Lane. She purchased the property of Mr. Mukai’s current residence from Wailuku Sugar Company, and used it to raise chickens and as a garden to raise vegetables for the family.

**Subject Property and Surrounding Area**

With regards to the subject property (2024 Kahawai Street, Wailuku, HI), Mr. Mukai’s earliest memories are of the Yamada family residing on the property. Half of the property was used as their residence with a carpentry shop, and the other half, nearest Market Street, was a church. He fondly recalls raising and trading pigeons with one of the Yamada boys.

Mr. Mukai noted that during the 1940s and 1950s, prior to the Yamadas, a Japanese church was formerly located on the property. When asked what religion was practiced, he thought it was similar to the present-day Maui Jinsha practice in Paukakalo, Maui. He indicates the Shinto religion was one of the first and dominate religions in Japan. The Shinto religion differs from Buddhism in that the belief is that a spirit god created the Japanese islands. The Shinto religion has two gods - the spirit god and a living god (Emperor of Japan). He also thought that sumo wrestling events had once occurred on the property. His father-in-law, Naoyuki Uradomo, participated in a Sumo tournament there. The sumo tournaments were conducted with all the traditional Japanese ceremonies for sumo. The tournaments were big throughout Maui, but ended with World War II.

Mr. Mukai recalls that when the Yamada family moved to Kula, Maui, they sold the property to Mr. Leonard Gomes. He thought Mr. Gomes may have had plans to develop the property and thus demolished the existing structures and built the present-day cinder block wall along the property boundaries. He expressed some concerns regarding the wall and believed it may not have been constructed to function as a retaining wall.

When asked what he likes about the surrounding area, Mr. Mukai remarks that in 1973 Happy Valley was a perfect location due to the country climate atmosphere with the benefit of being centrally located. He says that is still true today. The weather is cooler and you are only a short distance from town. He enjoys the quiet community but sees that it is changing because many of the older generation have since passed and their residences have been converted to rentals.
When asked what he regards as the existing problems in the area, Mr. Mukai indicated that the region between Upper Mokuha Road, below Market Street (near the flume), and lower Kahawai Street near Market Street experience an increase in crime and drug related activities. Other problems he noted included: parking along Kahawai Street near the project site; needed improvements to the sidewalk along Iao Stream; better drainage, especially along Lewa Place; decreased water pressure; and aging sewer lines for the area.

With regards to agricultural activities in the surrounding area, Mr. Mukai recalled that Wailuku Sugar Company’s former operations included livestock stables located at the end of Pule Place and on the south side of Iao Stream.

With regards to mountain access in the surrounding area, Mr. Mukai noted that existing trails from Mokuha Street were blocked with the development of Wailuku Country Estates to the north of the subject property.

**Summary of Cultural Practices on the Subject Property**

To the best of his knowledge, Mr. Mukai recalls no other cultural practices occurring on the subject property, with the exception of the Japanese church during the 1940’s to 1950’s.
PROPOSED KAHAWEI CONDOMINIUM PROJECT
HABITAT FOR HUMANITY
ETHNOGRAPHIC INTERVIEW

Interview with: Stanley Okamoto
Interviewed by: Kivette Koepp, Senior Associate
               Munekiyo & Hiraga, Inc.

Personal Background and Geographic Identity

Mr. Stanley Okamoto was born in 1926 in the area locally known as Happy Valley in the
town of Wailuku, Maui, Hawaii. He has been a life-long resident of Maui and lived in
Happy Valley for most of his life. He was born in a home rented from the Gouviea family
located near the corner of Mokuhau Road and Market Street. He spent his first four (4)
years here until 1930 when his father built a home on land purchased at the top of
Mokuhau Road. He fondly remembered the address of his childhood home as 2267
Mokuhau Road and recalled memories of his family raising chickens and truck farming the
property.

In 1944, Mr. Okamoto graduated from Baldwin High School and moved to Honolulu, Hawaii
to attend the University of Hawaii. He quickly noted that he soon moved back because,
"I missed Maui." In 1946, he enrolled in a two-year program at Maui Technical School,
which was the predecessor of what is now known as the University of Hawaii, Maui
Campus. He noted that in those days the campus consisted of four (4) buildings. Each
building housed a different program and included a machine shop, auto shop, carpentry
shop, and a dressmaking shop for women. He was a student in the machine shop and
completed the program in 1948. Upon completion, Mr. Okamoto obtained a position with
Maui Land and Pineapple at the Kahului Cannery. His job entailed working the mechanical
platform of the receiving area for pineapple brought in from the fields.

The year 1951 marked a busy period for Mr. Okamoto. He left the cannery and embarked
on a new career selling life insurance with Sun Life of Canada; got married; and bought his
own home located at 260 Makua Street, in Happy Valley, Wailuku. To this day at the
tender age of 85, he lives in the same house and continues to work full-time in the
insurance industry for Occidental Underwriters. When asked of any plans to retire, he
smiled and simply answered, "No. I go to work every morning at 8:00 a.m., at noon go
home for lunch and take a nap, return to work at 2:00 p.m., and go home at 6:00 p.m. I
like it."
Family History

In the late 1800's, Mr. Okamoto's grandfather and grandmother moved to Maui from Japan and both worked for Olowalu Sugar Company. Mr. Okamoto recalled that his grandmother's job was to sew the bags closed with a needle and thread once they were filled with sugar. He remembered that his grandmother kept the needle and used to show it to her children.

Mr. Okamoto's father was born in 1899 in Olowalu, Maui. He was one (1) of seven (7) children and the only boy. At some point during his father's life, the entire family returned to Japan to live for some years. When Mr. Okamoto's father was 16 years old, the family returned to Maui, with the exception of three (3) daughters who lived their remaining lives in Hiroshima and Hokaido, Japan. He remarked that when the family returned, his father was 16 years old and yet had to attend the 1st grade to learn English.

At the young age of 49, Mr. Okamoto's grandfather passed away from tuberculosis, leaving his only son to care for the family. The family lived in a small one-bedroom camp house located two (2) houses back from the Olowalu General Store. Mr. Okamoto fondly recalled that the house had a bedroom and kitchen but no bathroom. He chuckled when he remembered the bathrooms for the whole camp were in a separate building with a single wall separating the men's area from the women's.

Mr. Okamoto's mother was born in Lahaina, Maui. After his parents married, they continued living in Olowalu until the birth of their first child, a daughter. Shortly after, the family moved to Happy Valley, and both parents began working for California Packing Corporation (CPC), a cannery that would later become known as Maui Land and Pineapple. In 1926, Mr. Okamoto was born; followed by a younger sister; and lastly by the youngest brother (14 years younger), who was the only one born in a hospital.

Subject Property and Surrounding Area

With regards to the subject property (2024 Kahawai Street, Wailuku, HI), Mr. Okamoto recalls that the Ishii Family owned and lived in a private residence on the property during the 1920s-1940s. It was during this time he recalls that an Odaisan Shrine was also located on the property and cared for by the Ishii Family. The shrine consisted of a building with a slanted roof and small altar used for services. When asked what religion was worshiped, he thought it was similar to the present-day Maui Jinsha located in Paukakalo, Maui. The Maui Jinsha is one of the many sects of Zen Buddhism. Mr. Okamoto fondly recalled that many "fun days" for kids were held on the property, of which he participated, and included sumo wrestling for local kids up to the age of 15. Sumo was a prominent event in Maui amongst local kids. Events were held on other properties located closer to Market Street and in the town of Kahului. When asked when services at the shrine may have ended, he speculated that it was likely in 1945 at the advent of the
war. Mr. Okamoto also thought it was during this time that the property was sold to the Yoshida Family, and the shrine was converted to a residence.

After the Yoshida family purchased the property, Mr. Okamoto recalled that a tragic event befell the family when Iao Stream flooded in the late 1940s to early 1950s. The stream was not yet constructed with protective revetments or levees, and a son of the Yoshida family was swept away in his vehicle by currents when the embankment collapsed.

Mr. Okamoto recalled climbing the neighboring hillsides as a kid to gather hale koa to use as beanpoles in the family’s truck farming activities.

With regards to existing problems in the surrounding area, Mr. Okamoto noted that his only concern was the traffic along Kahawai Street. He also noted that the neighboring community of Wailuku Country Estates to the north likely helped to improve drainage conditions by diverting runoff that may have historically impacted the Happy Valley community.

When asked about the present day condition of the property and the proposed project, Mr. Okamoto thought that a daughter of the Yoshida family and her husband built the cinder block wall following the property boundaries. He stated that he had no reservations about the project.

**Summary of Cultural Practices on the Subject Property**

With regards to cultural practices occurring on the subject property, Mr. Okamoto’s only recollection is the past use as a Japanese church during the 1940’s to 1950’s.
APPENDIX F.

Traffic Assessment Report
Ms. Sherri K. Dodson  
Executive Director  
Habitat for Humanity  
P.O. Box 5034  
Kahului, Hawaii 96733-5034

Dear Ms. Dodson:

Subject: Traffic Assessment for the  
Habitat for Humanity – Kahawai Condominiums  
Tax Map Key: (2) 3-4-033:002  
Wailuku, Maui, Hawaii

Austin, Tsutsumi & Associates, Inc. (ATA) has conducted a traffic assessment for the proposed Habitat for Humanity Kahawai Condominiums located in Wailuku, Maui, Hawaii.

Project Description

The Habitat for Humanity Kahawai Condominiums will be located at 2024 Kahawai Street in Happy Valley on the island of Maui, specifically described as TMK: (2) 3-4-033:002. We understand that Habitat for Humanity, Maui is proposing to construct a 16-unit residential condominium on an 11,186 square foot parcel. The three-story high building will be constructed over 20 parking stalls with access provided along Kahawai Street.

Existing Roadways

Kahawai Street is a local road that provides access to a residential subdivision. Sidewalk and curb space are provided on the south side of Kahawai Street but are not present along the street fronting the proposed project. East of the proposed access point, Kahawai Street intersects with North Market Street at an unsignalized T-intersection.

North Market Street is an urban collector street that generally provides access between the Happy Valley area and the commercialized central areas in Wailuku. North Market Street is a two-way, two-lane roadway from its northern terminus to Vineyard Street. Between Vineyard Street and Main Street, North Market Street turns into a one-lane, one-way street for northbound travel. The posted speed limit is 20 mph in the vicinity of the Project. The site location for the proposed project is show in Figure 1.
Study Scope

The focus of this traffic assessment will be on the trip generation potential of the Project to determine whether it meets the minimum trip generation criteria recommended by Institute of Transportation Engineers (ITE). The Manual of Transportation Engineering Studies, dated 2000, published by ITE states:

"... in lieu of other locally established thresholds, a traffic access/impact study should be conducted whenever a proposed development will generate 100 or more added (new) peak direction trips to or from the site during the adjacent roadway's peak hours or the development's peak hours."
Habitat for Humanity

Trip Generation

The Institute of Transportation Engineers (ITE) publishes trip rates, Trip Generation, 8th Edition, based upon historical data from similar land uses. The trip generation for the Project was generated using ITE Code 232 for High-Rise Residential Condominium/Townhouse. Table 1 shows the projected traffic generated by the proposed 16-unit residential condominium during the AM and PM peak hours of traffic.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>AM Peak Hour</th>
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<th>PM Peak Hour</th>
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</thead>
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<tr>
<td>High-Rise Residential Condominium/Townhouse</td>
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<td>28</td>
<td>34</td>
<td>13</td>
</tr>
</tbody>
</table>

The proposed project is anticipated to generate 34 trips in the AM peak hour of traffic (worst case scenario) and 21 trips during the PM peak hour of traffic. The projected AM and PM peak hours resulted in project generated traffic well below the 100 new trip threshold that would require a Traffic Impact Assessment Report.

Conclusions

The following are the conclusions of the traffic assessment study:

- With only 28 and 8 vehicles (AM and PM, respectively) anticipated to exit the project during the peak hours of traffic, the nearby Kahawai Street/North Market Street intersection will most likely remain unsignalized.

- The preparation of a Traffic Impact Assessment Report is not required as the Project does not meet the minimum trip generation criteria of 100 new trips in the peak direction which is recommended by ITE regarding the preparation of a Traffic Impact Assessment Report.

We appreciate the opportunity to prepare this traffic assessment for the Project. Should you require clarification, please call me or Tyler Fujiwara.

Sincerely,

AUSTIN, TSUTSUMI & ASSOCIATES, INC.

By KEITH K. NIIYA, P.E.
Chief Transportation/Traffic Engineer