

HRS CHAPTER 343
FINAL ENVIRONMENTAL ASSESSMENT
In Support Of
APPLICATIONS FOR
SPECIAL MANAGEMENT AREA USE PERMIT,
SHORELINE SETBACK VARIANCE,
COMMUNITY PLAN AMENDMENT & CHANGE IN ZONING

**KAHANA SUNSET
SHORELINE & SITE
IMPROVEMENTS**



*4909 Lower Honoapiilani Road
Lahaina, Maui, Hawaii
Tax Map Key: (2) 4-3-003:015*

Prepared for:

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*JANUARY 2014
Revised*

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I. PROJECT INFORMATION

A. PREFACE

The Kahana Sunset is a ~~residential~~ condominium resort development built in 1971 on a 4.467 acre site along the coast of West Maui. The site consists of six apartment buildings containing 79 units, a support building containing an office, a managers residence, and laundry, and a swimming pool with a cabana. Site amenities include garden gazebos, barbeques, outdoor showers, and parking lot.

B. PURPOSE OF THE REQUEST

The purpose of this Environmental Assessment (EA) is to analyze the potential impacts related to the proposed construction of a replacement seawall fronting the shoreline at the *makai* boundary of the subject property and a Community Plan Amendment (CPA). This EA is submitted in support of the following land use entitlement and shoreline area application requests: 1) Special Management Area (SMA) Use Permit; 2) Shoreline Setback Variance (SSV); 3) Community Plan Amendment (CPA); and 4) Change in Zoning (CIZ). Depending on the final determination of the certified shoreline, a State Conservation District Use Permit (CDUP) Application may also be required. Preparation of an EA is required in compliance with the provisions of HRS Chapter 343, since the proposed development involves both an action within the Shoreline Setback Area as well as a CPA. In addition, the project area is located within the SMA, the area of jurisdiction of the Hawaii Coastal Zone Management (CZM) program, and possibly the State Conservation District.

C. PROJECT PROFILE

Proposed Project:	Seawall Reconstruction, Storm Drainage Upgrades/Improvements, Relocation of Site Amenities
Project Address:	4909 Lower Honoapiilani Road Lahaina, Maui, Hawaii 96761
Project TMK:	(2) 4-3-003:015
Parcel Size:	4.467 acres (194,583 square feet)
Existing Land Use:	Residential Condominium Resort
Access:	Lower Honoapiilani Road



D. IDENTIFICATION OF THE APPLICANT/OWNER

Land Owner: Kahana Sunset AOA
Address: 4909 Lower Honoapiilani Road
Lahaina, Maui, Hawaii 96761
Contact: Ms. Jacque Scheibel, Co-Chair
Kahana Sunset AOA Board Long Range
Planning Committee
5575 Foothill Ranch Road
Santa Rosa, California 95404
Phone: (808) 669-9952
Mobile: (707) 292-4691
Contact: Mr. Keith Meyer, Co-Chair
Kahana Sunset AOA Board Long Range
Planning Committee
7650 NE Meyer Lane
Corvallis, Oregon 97330-9666
Phone: (541) 231-8487

E. CONSULTANTS

Land Use Planner & Landscape Architect: Chris Hart & Partners, Inc.
115 N. Market Street
Wailuku, Maui, Hawaii 96793
Phone: Voice: (808) 242-1955
Facsimile: (808) 242-1956
Contact: Mr. Jordan E. Hart, President
Email: jhart@chpmaui.com

Civil Engineer: Marc M. Siah & Associates
820 S. Beretania Street, Suite 201
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Phone: Voice: (808) 538-7180
Facsimile: (808) 528-4352
Contact: Mr. Marc M. Siah, President
Email: msiah@mmsengineering.com

Structural Engineer: AAA Structural Engineering Inspection & Evaluation Services



Phone:
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(808) 398-6749
Mr. Kiumars Siah, Principal
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ksiah@aaastructuralengineering.com

F. ACCEPTING AGENCY

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

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

Contact: Mr. William Spence

G. MAJOR LAND USE, DEVELOPMENT AND CONSTRUCTION APPROVALS

1. Grading and Grubbing Permit approval from the Department of Public Works (DPW).
2. Building Permits for future structures from the DPW.
3. Demolition Permit from DPW.
4. Special Management Area Use Permit by the Maui Planning Commission, via the Department of Planning.
5. Shoreline Setback Variance approval by the Maui Planning Commission, via the Department of Planning.
6. Community Plan Amendment approval by the Maui County Council.
7. Change in Zoning approval by the Maui County Council.
8. Conservation District Use Permit from the State Department of Land and Natural Resources.
9. Right of Entry Permit from the State Department of Land and Natural Resources.
10. Flood Hazard Development Permit approved by the Department of Planning.

H. PRE-CONSULTED AGENCIES & PRIVATE INTERESTS

See: Appendix "A", "Summary of Public and Agency Consultation"



COUNTY OF MAUI

1. Department of Environmental Management
2. Department of Fire Control & Public Safety
3. Department of Housing & Human Concerns
4. Department of Parks and Recreation
5. Department of Planning
6. Department of Public Works
7. Department of Transportation
8. Department of Water Supply
9. Police Department

STATE OF HAWAII

1. Department of Business, Economic Development & Tourism
2. Department of Education
3. Department of Hawaiian Homelands
4. Department of Health
5. Department of Land & Natural Resources
6. Department of Land & Natural Resources, Historic Preservation Division
7. Department of Land & Natural Resources, Office of Coastal Conservation Lands (OCCL)
8. Department of Transportation
9. University of Hawaii Environmental Center
10. University of Hawaii Sea Grant Extension Service
11. Office of Hawaiian Affairs

FEDERAL

1. USDA, Natural Resources Conservation Service
2. U.S. Fish & Wildlife Service
3. U.S. Army Corps of Engineers

OTHER

1. Maui Electric Company
2. Hawaiian Telcom
3. Neighboring Property Owners and Registered Lessees within 500 feet



I. CONSULTED AGENCIES & PRIVATE INTERESTS

The Draft Environmental Assessment for the Kahana Sunset Shoreline & Site Improvements was published on February 8, 2013 by the State Office of Environmental Quality Control (OEQC) in its Environmental Notice bulletin. The publication initiated a 30-day public review period ending on March 11, 2013. The Draft EA was mailed to the agencies below. All comment and response letters are found in Appendix "L", unless noted otherwise.

PUBLIC AGENCIES:

Federal

1. Environmental Protection Agency, Pacific Islands
2. U.S. Fish & Wildlife Service
3. NRCS-USDA Maui
4. U.S. Army Corps of Engineers

State

1. Department of Accounting & General Services
2. Department of Business, Economic Development & Tourism
3. Department of Attorney General
4. Department of Hawaiian Home Lands
5. Department of Health
6. Department of Human Services
7. Department of Land and Natural Resources
8. Historic Preservation Division, Department of Land and Natural Resources
9. Department of Education
10. Department of Transportation
11. Office of Hawaiian Affairs
12. Office of Environmental Quality Control
13. Office of Planning
14. University of Hawaii Environmental Center
15. UH Sea Grant Extension
16. Lahaina Public Library
17. Civil Defense

County

1. Civil Defense
2. Department of Environmental Management
3. Department of Finance
4. Department of Housing and Human Concerns
5. Department of Parks & Recreation
6. Department of Planning
7. Department of Public Works
8. Department of Transportation
9. Department of Water Supply
10. Fire & Public Safety



-
11. Police Department
 12. Zoning Administration & Enforcement Division
 13. Mayor's Office

PRIVATE INTERESTS:

1. Hawaiian Telcom
2. Maui Electric Company

The project was presented at the regular meeting of the Maui Planning Commission on February 26, 2013. The meeting was open for public testimony and no one came forward. Members of the Maui Planning Commission asked questions and provided comments (See: Appendix "M"). As required, notices of application for Special Management Area Use Permit, Shoreline Setback Variance, Community Plan Amendment, and Change in Zoning will be mailed out upon acceptance of the Final EA. A letter signed by 33 private citizens was received with comments on the Draft EA (See: Appendix "L") and a response was prepared and sent to the 12 who provided addresses.

As suggested by the Planning Department, Kahana Sunset hosted a Community Informational Meeting onsite on July 16, 2013. Two (2) emails and two (2) phone calls with questions were received and responded to. The meeting was hosted by three (3) Kahana Sunset AOA board members and the resident manager. In attendance were four (4) interested neighbors, one (1) Kahana Sunset employee, and two (2) representatives of Chris Hart & Partners, Inc. A slide presentation was conducted by Mr. Keith Meyer. The proceedings are documented in Appendix "N".



II. DESCRIPTION OF THE PROPERTY AND PROPOSED ACTION

A. PROPERTY LOCATION AND DESCRIPTION

The subject property is located at 4909 Lower Honoapiilani Road, Island of Maui, Hawaii, Tax Map Key (2) 4-3-003:015 (See: Figures No. 1 “Regional Location Map”, No. 2 “Aerial Map”, and No. 3 “Tax Map”). The property is located on the northwest coast of West Maui, approximately 7 miles north of central Lahaina Town and approximately 1.5 miles south of the resort community of Kapalua. The project site is situated along Keonenui Bay, between Haukoe and Alaeloa Points, in an area collectively referred to as Alaeloa. Access to the property is via Lower Honoapiilani Road.

The 4.467-acre (194,583 square feet) parcel is located on Keonenui Bay, midway between Haukoe and Alaeloa Points. The property ranges in elevation from sea level at its *makai* boundary to approximately 49 feet above mean sea level (AMSL) at the *mauka* boundary with Lower Honoapiilani Road. Erosion has been ongoing along this entire shoreline area for a considerable length of time.

B. EXISTING LAND USE

Existing structures on the parcel include six (6) ~~residential~~ resort condominium buildings, a support building with an office, manager’s residence, and a laundry facility. There are 16 one-bedroom units and 63 two-bedroom units. The units are individually owned by part-time residents and are used as vacation rentals except for one full-time resident. ~~All are used as vacation rentals except for one.~~ Land uses on neighboring parcels are characterized largely by single-family residential development and some larger family-style multi-family condominium developments across Honoapiilani Road. Further south, there are other vacation rental/multi-family developments similar to the Kahana Sunset Residential Resort Condominiums. The properties fronting the entirety of the shoreline between Haukoe and Alaeloa Points are armored by individual seawalls that together form a nearly contiguous structure along the shoreline.



C. LAND USE DESIGNATIONS

The project site lies in the State *Urban* District, is proposed for *Single-Family* use by the West Maui Community Plan and is zoned *R-3 Residential District* by Maui County. The site is located within the *Special Management Area (SMA)*, the area of jurisdiction of the Hawaii Coastal Zone Management (CZM) program.

State Land Use Classification:	Urban (See: Figure No. 4, “State Land Use Boundary Map”)
West Maui Community Plan:	SF Single Family (See: Figure No. 5, “West Maui Community Plan ”)
County Zoning:	R-3 Residential (See: Figure No. 6, “County Zoning Map”)
Flood Zone Designation:	X: Outside 0.2% annual chance floodplain; AE: 100-year floodplain (BFE: 17 ft.) VE: Coastal 100-year floodplain with velocity (BFE: 17 ft.) (See: Figure No. 7, “Flood Insurance Rate Map”)
Special Designations:	Special Management Area (SMA) (See: Figure No. 8, “Special Management Area Map”)

D. PROJECT BACKGROUND AND NEED

The existing 79-unit apartment-condominium was constructed in 1971. Building permits indicate that Building “A” (north side) was approximately 15 feet from the shoreline and Building “F” (south side) was approximately 50 feet from the shoreline. Over the years beginning in 1975, permitted protective shoreline structures, or seawalls, have been constructed, with County, State, and Federal approvals, to protect the habitable structures of Kahana Sunset. However, due to coastal erosion and the current shoreline definition criteria, Building “A” is now approximately 8 feet and Building “F” is approximately 10 feet from the assumed shoreline. (Note: The shoreline was surveyed and the map was submitted to the State for certification, however since encroachments have been identified, the shoreline has not been certified. Some of these encroachments will be removed by this proposed action. After construction is complete, Kahana Sunset intends to re-survey the shoreline and re-submit for certification. Any remaining encroachments will be resolved with the State at that time.) Seasonal coastal erosion events have



caused portions of the existing seawalls to fail over time. Following is a chronological list of authorizations obtained for construction and/or repair of erosion control structures (See: Appendix “B”, “Shoreline Approvals”):

Year/Date	Action	Approvals	Permits/Approvals
1975	Reinforced concrete seawall	Planning Dept., DLNR, Army Corps of Engineers	Letters of Approval
1978	Shoreline protection, fill caves	Planning Dept., DLNR, Army Corps of Engineers	Shoreline Setback Approval, CDUP
1996	Repair seawall	Planning Dept.	Shoreline Setback Approval (SSA 96/0002), SMA Exemption (SM5 96/0005)
2003	Repair seawall	Planning Dept.	Two (2) SMA Emergency Permits (SM3 2003/0001 & SM3 2003/0002)
2009	Foundation seawall "F"	Planning Dept.	SMA Emergency Permit (SM3 2009/0005)
2010	Foundation seawall "A"	Planning Dept.	SMA Emergency Permit (SM3 2010/0001)
2012	Remove unstable soils/gunite top of bank <u>and face of embankment.</u> <u>Reconstruct safety wall/fence</u>	Planning Dept.	SMA Minor Permit (SM2 2012/0051) & Shoreline Setback Approval (SSA 20120029)
<u>2013</u>	<u>Remove undermined encroaching buttress and repair undermined seawall "F".</u> <u>Construct stairway for future beach access path</u>	<u>Planning Dept., DLNR</u>	<u>SMA Emergency Permit (SM3 2013/0003) and Site Plan Approval (SPA MA-14-9)</u>

In 2009, Kahana Sunset experienced severe damage to its seawalls, threatening the habitable structures. The foundation of Building “F” was threatened and the lanai



between the building and the seawall eventually collapsed. An SMA Emergency Permit (SM3 2009/0005) allowed reconstruction of the lanai, the seawall and reinforcement of the Building “F” foundation. The seawall fronting Building “A” sustained damage and repair work was authorized by another SMA Emergency Permit (SM3 2010/0001). In 2010, the “serpentine” seawall fronting part of Building “F” was removed along with two set of steps at the request of the State since they were apparently unauthorized structures. The serpentine seawall collapsed prior to its removal and posed a safety hazard. In 2011, the seawall between Buildings “A” and “F” began developing severe cracks and is in danger of collapsing due to undermining of the foundation, with sink holes appearing landward of the seawall. (See: Figure No. 9.4, “Site Photographs”). In 2013, an old unused concrete and rock stairway and buttress attached to the Building “F” seawall were being undermined along with the adjoining portion seawall. With approvals by the State and County, the stairway and buttress were removed and the seawall was repaired (See: Appendix “B”). In addition, Kahana Sunset was authorized to install the concrete stairway for the future beach access path in order to avoid the re-mobilization of construction equipment at the shoreline when the rest of the path is constructed.

Most of the shoreline at Keonenui Bay is either naturally hardened or artificially armored with vertical reinforced concrete stone masonry seawalls. The natural wave action in the area is magnified and continues to erode the clay and ash substrate below the base of the unprotected natural walls of Keonenui Bay, threatening public safety and adding silt to the adjacent coastal waters.

The purpose of this project is to enhance public safety and create a long-term solution that will stabilize the bank at the shoreline of Keonenui Bay in order to:

- Prevent future erosion of the property and potential undermining of neighboring shoreline protection structures; and
- Prevent earthen soils from eroding and causing siltation of the coastal waters.

Portions of the existing seawall and the entire stair structure will be demolished and removed from within the Shoreline Setback Area. A new replacement retaining wall with steps to the beach is proposed to be constructed *mauka* of the proposed certified shoreline, retreating as far back as thirty feet. This will serve to widen the beach and further mitigate risks associated with seasonal coastal hazards while continuing to protect the existing residential and drainage structures. A Shoreline Setback Variance (SSV) is required for this structure pursuant to §12-203-14 of the Shoreline Rules for the Maui Planning Commission. Justification for approval of the SSV is provided in Chapter VII of this document.



Land Use Designations. The designations of (SF) Single-Family in West Maui Community Plan and County Zoning (R-3) Residential District are both inconsistent with the apartment-condominium use of the property. The existing resort property received a variance in 1968 for the “Construction of an Apartment Building with Accessory Uses” (See: Appendix “C”). Short term or transient vacation rental (TVR) use was allowable in 1968; Kahana Sunset apartments were rented in that fashion and continues to this day. Therefore, the goal of this land use entitlement and shoreline/SMA development process is to establish permanent land use consistency and conformity, as well as shoreline protection.

E. ALTERNATIVES

Seawall. The following alternatives were considered in determining the preferred option for the proposed replacement seawall reconstruction:

No Action: This alternative would forego any improvements associated with the proposed project.

Positive Impacts: By leaving the property in its existing state, the short term impacts associated with demolition and construction would be avoided.

Negative Impacts: The failing seawall will continue to pose a public safety hazard and possible catastrophic collapse. The existing multi-family structures may eventually become threatened either by gradual flank erosion over time or due to a heavy storm event. Water quality in the adjacent coastal waters will continue be compromised by erosion-borne sediment.

Because the negative impacts outweigh the positive impacts, ~~T~~his alternative was deemed infeasible and dropped from consideration.

No Seawall: This alternative would remove the failing seawall.

Positive Impacts: Removal of the seawall would allow the beach/dune process to occur naturally. There would be no immediate construction-related impacts associated with the construction of the seawall.

Negative Impacts: Nearshore water quality and public safety would remain threatened by gradual erosion of the beach over time and eventually threaten existing structures. A significant amount of Kahana Sunset property would be lost to erosion.



Because the negative impacts outweigh the positive impacts, this alternative was deemed infeasible and dropped from consideration.

Alternative Wall Designs: Several alternative designs for the construction of the proposed wall were considered. Note that these wall alternatives are limited to the area between Building “A” (ten apartment units) and Building “F” (twelve apartment units).

a. Retaining Wall (Option 1): This alternative would involve rebuilding of the seawall in its current location.

Positive Impacts: This alternative would effectively keep the seawall at the existing assumed shoreline, with some portions within State land, depending on the final determination of the shoreline. Existing amenities could remain in place.

Negative Impacts: Portions of the seawall may fall within State land, requiring additional permitting. The seawall would be subject to the same wave velocity that it is currently experiencing.

This alternative was deemed infeasible and dropped from consideration because this would not address the chronic erosion problem at Kahana Sunset.

b. Retaining Wall (Option 2): This alternative would involve construction of an approximately forty-foot wide stairway with long flanking walls on both sides.

Positive Impacts: This alternative would provide an open feel looking makai from the courtyard while still providing protection from coastal erosion to Buildings “A” and “F”.

Negative Impacts: This option would surrender much of the Kahana Sunset courtyard area. The stairway would not provide adequate protection from coastal erosion.

This alternative was deemed infeasible and dropped from consideration because of the potential loss of property and inadequate protection from erosion.

c. Retaining Wall (Option 3): This alternative would involve construction of a retaining wall outside of the shoreline setback. Based on the average lot depth, the shoreline setback is offset 76.48 feet from the shoreline (See: Section G below).

Positive Impacts: Locating the wall further inland would constitute a landward retreat based on the shoreline setback and theoretically would avoid exposure to wave action for at least 50 years.



Negative Impacts: This option would surrender a significant portion of the Kahana Sunset courtyard area (approximately 6,400 square feet). Habitable buildings will remain within the shoreline setback area and unless flanking walls are also constructed, these buildings would eventually be threatened by erosion. This area is popular with Kahana Sunset’s guests because of its proximity to the beach, pool, barbeque stations, sunning lawn, and ocean views. This option would deprive Kahana Sunset’s reasonable use of this portion of the property.

This alternative was deemed infeasible and dropped from consideration because the additional costs in terms of wall construction, loss of land area, and loss of reasonable use of Kahana Sunset’s property. The preferred option relocates the existing seawall between approximately 10 to 30 feet landward and the top of wall elevation will be between approximately 3 to 7 feet higher than the existing wall. The design and placement of the the proposed replacement seawall is based on detailed analyses by civil, coastal, soils and structural engineers and documented in the “Preliminary Structural Engineering Report” (See: Appendix “D”), the “Wave Climate Study” (See: Appendix “F”), and the “Geoanalytical Report” (See: Appendix “G”).

Land Use Designations. The following alternatives were considered in determining the preferred option for the proposed Community Plan Amendment and Change in Zoning (See: Table 1 below):

No Action: This alternative would forego any changes to land use designations.

Positive Impacts: By leaving the property in its existing zoning, the existing variance stays in effect.

Negative Impacts: Issues with non-conformity and inconsistency between the existing land use and the land use designations may hamper receiving future entitlements and permits. This may limit future improvement plans for Kahana Sunset. This alternative was deemed infeasible and dropped from consideration.

Multi-family and A-1 Apartment District Designations: This alternative would propose a Community Plan Amendment from Single-Family to Multi-Family and Change in Zoning from R-3 Residential District to A-1 Apartment District. This alternative has a maximum Floor Area-Lot Area density ratio of 40% and a Lot Coverage ration of 25%. The height limitation is two stories, transient vacation rental (TVR) use is not allowed, and the parking stall ratio is two stalls per unit.



Positive Impacts: This alternative is compatible with neighboring uses in the context of the residential character.

Negative Impacts: Kahana Sunset would be non-compliant with parking standards and TVR restrictions.

Although Kahana Sunset meets the floor area and lot coverage ratios, the height limit is exceeded for this designation. Kahana Sunset cannot meet the required parking ratio and TVR use is not allowable. For these reasons, this alternative was deemed infeasible and dropped from consideration.

Multi-family and A-2 Apartment District Designations: This alternative would propose a Community Plan Amendment from Single-Family to Multi-Family and Change in Zoning from R-3 Residential District to A-2 Apartment District. This alternative has a maximum Floor Area-Lot Area density ratio of 90% and a Lot Coverage ratio of 35%. The height limitation is four stories, transient vacation rental (TVR) use is not allowed, and the parking stall ratio is two stalls per unit.

Positive Impacts: This alternative has a slightly lower Floor Area-Lot Area density ratio than hotel (90% to 100%) and Kahana Sunset would not exceed the height limitation.

Negative Impacts: Kahana Sunset would be non-compliant with parking standards and transient vacation rental restrictions.

Although Kahana Sunset's lot coverage and floor area ratios are far less than the maximum allowed and the height limit is not exceeded for this designation, Kahana Sunset cannot meet the required parking ratio and TVR use is not allowable. This alternative was deemed infeasible and dropped from consideration.

Hotel and H-1 Hotel District Designations: This alternative would propose a Community Plan Amendment from Single-Family to Hotel and Change in Zoning from R-3 Residential District to H-1 Hotel District.

Positive Impacts: This alternative has a Floor Area-Lot Area density ratio of 50% and a Lot Coverage ratio of 25%.

Negative Impacts: Kahana Sunset would be non-compliant with the height limitation of two-stories.

Kahana Sunset's lot coverage and floor area ratios are less than the maximum, the parking ratio can be met, and short term rental use is allowed. However, the height limit is exceeded for this designation. For that reason, this alternative was deemed infeasible and dropped from consideration.



Hotel and H-2 Hotel District Designation: This alternative would propose a Community Plan Amendment from Single-Family to Hotel and Change in Zoning from R-3 Residential District to H-1 Hotel District. This alternative has a Floor Area-Lot Area density ratio of 150%, Lot Coverage ratio of 35% and height limitation of 12 stories.

Positive Impacts: Kahana Sunset meets the Floor Area-Lot Area density ratio, Lot Coverage ratio, and height limitation of this alternative.

Negative Impacts: The maximum density of this alternative is too intense and not compatible with other neighboring uses (single and multi family residential).

Kahana Sunset’s meets all of the regulations for this alternative; however this zoning designation could encourage overbuilding and unrealistic property valuations in the neighborhood. This alternative was deemed infeasible and dropped from consideration.

Zoning Comparison Table						
	<u>Kahana Sunset</u>	<u>A-1</u>	<u>A-2</u>	<u>H-1</u>	<u>H-M</u>	<u>H-2</u>
<u>Transient Vacation Use</u>	<u>Yes</u>	<u>Not Allowed</u>	<u>Not Allowed</u>	<u>Allowed</u>	<u>Allowed</u>	<u>Allowed</u>
<u>Height (max. stories)</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>6</u>	<u>12</u>
<u>Floor Area-Lot Area Ratio (max.)</u>	<u>40%</u>	<u>40%</u>	<u>90%</u>	<u>50%</u>	<u>100%</u>	<u>150%</u>
<u>Lot Coverage (max.)</u>	<u>22%</u>	<u>25%</u>	<u>35%</u>	<u>25%</u>	<u>30%</u>	<u>35%</u>
<u>Parking Ratio</u>	<u>1.2 stalls/unit</u>	<u>2 stalls/unit</u>	<u>2 stalls/unit</u>	<u>1 stall/ 2 units</u>	<u>1 stall/ 2 units</u>	<u>1 stall/ 2 units</u>

Table 1

Bold: Meets regulation

Strike through: Does not meet regulation



F. DESCRIPTION OF PROPOSED ACTION (PREFERRED ALTERNATIVE)

The Applicant proposes to demolish a portion of the existing seawall sited within the Shoreline Setback Area, and construct a structurally engineered shoreline armoring system in order to stabilize the shoreline (See: Figure No. 10, "Concept Master Plan" and Appendix "D", "Preliminary Structural Engineering Report"). A detailed description of the planned improvements follows:

Seawall. Construction of the proposed replacement seawall will first involve demolition and removal of approximately 114 feet of an existing CRM seawall and an approximately ten-foot wide concrete stairway. This would be followed by the construction of an approximately 125-foot 15-inch wide replacement concrete wall with textured face and reinforced footing, approximately 10 feet inland of the existing wall. A 13-foot wide stairway will be constructed approximately 30 feet inland of the existing stairs. The seawall at the drainage outfall will be located approximately 3 feet *mauka* of its current location. This will have the effect of widening the sandy beach accordingly.

Marc M. Siah, the coastal engineer for the project, in a letter dated July 29, 2013 (See: Appendix "O"), has analyzed the seawall design and confirmed that the configuration is appropriate in the context of the shoreline processes at Keonenui Bay.

The project engineers have determined that the failure of the existing seawall was due to the faulty design of its foundation. It is characterized as a "gravity" wall which allows hydraulic movement in the substrate under its base. The proposed seawall foundation will be anchored to bedrock, thereby stabilizing the shoreline at this location. If engineers deem it necessary, weep holes in the wall will be provided to relieve hydrostatic pressure and prevent sinkholes from occurring.

Beach quality sand that is excavated during demolition and construction will be returned to the beach. If clay layers are discovered within the new beach area at beach grade following the existing slope, the clay will be excavated below grade and replaced with beach quality sand.

Amenities. The existing gazebo will be relocated inland and the existing shower will be relocated to the south of the new stairway.

Drainline. The Preliminary Drainage Report for Kahana Sunset Condominium (PDR) was prepared by Marc M. Siah & Associates, Inc. in April 2012 (See: Appendix "K"). In the report, the existing drainage system is described as follows:

The existing drainage infrastructure on the property consists of drain lines of various sizes, drain inlets, drywells, storm drain manholes, and cobble-lined drainage channels



which are located at strategic locations throughout the development to intercept, collect, and convey storm runoff by means of a 36-inch outfall and several other smaller drainage pipes into the Keonenui Bay. (Sec. 2.5, p. 5)

The existing 36-inch outfall is located at the north end of the seawall proposed for demolition (See: Figure No. 9.4, Photo No. 28).

The existing approximately 300-foot long 36-inch corrugated metal drainline, identified as Existing Storm Drainline (ESD) No. 5, running from a drywell at the top of the courtyard to the existing seawall near Building “A” is proposed to be replaced due to its age (See: Figure No. 11) . The outlet at the seawall may be shifted approximately 5 feet north, towards Building “A” and approximately 3 feet to the east (landward). Other drainage improvements include:

- Upsize ESD No. 6 (approximately 70 feet) and Inlet No. 1.
- Replace Open Channel No. 2 with an inlet and subsurface drainline to ESD No. 5.
- Retrofit and install filters on Inlet Nos. 1 & 2 to capture sediments, debris, and other pollutants.

Landscape Planting. The existing landscaping is proposed to be renovated and new landscape vegetation will include drought tolerant Hawaii native trees, shrubs, and ground cover, wherever possible. Two new retaining walls (3 ½ and 4 feet high, respectively) will be constructed between Building “B” and the central courtyard in order to increase the lawn area Landscape plants will be watered using an automatic irrigation controller with “rain sensor” shut-off valve to prevent over watering. Wherever practical, the project will utilize drip irrigation to reduce water usage. Irrigation will be scheduled between approximately 7:00 PM and 10:00 AM, after new plantings are established. Landscape water usage will be lowered further by adding soil top dressing, to prevent water evaporation from the soil. Turf grass will be used in central courtyard within the shoreline setback area, to maintain an open view across the *makai* portion of the site.

Land Use Designations. The applicant is requesting a Community Plan Amendment (CPA) from Multi-Family to Hotel and a Change in Zoning (CIZ) from R-3 Residential to H-M Hotel District in order to have the land use designations consistent with the existing use. The following table compares the existing and proposed land use criteria:



	R-3 (existing)	H-M (proposed)	1971	Kahana Sunset
Allowable Use	Long Term Residential	Transient Vacation Rental (TVR) allowable	TVR allowable	Owner/TVR
Area (min.)	10,000 SF	15,000 SF	10,000 SF	194,583
Height (max.)	2-stories or 30FT	6-Stories	Variance	1 – 3 stories
Unit Density (max.)	1 unit / 10,000 SF	NA	Variance	1 unit / 2,432 SF
Lot Coverage (max.)	NA	30%	Variance	22.0%
Floor Area-Lot Area Ratio (max.)	NA	100%	Variance	40%
Front/Rear Yards (min.)	Front: 15FT; Rear: 1-story: 6FT 2-story: 10FT	½ height of bldg. min.: 15 FT	Variance	Front: >15FT for 1-story, >20FT for 3-story; Rear: >15FT for 2-story
Side Yards (min.)	1-story: 6FT 2-story: 10FT	1-2 st: 10 FT 3-4 st: 15 FT 5-6 st: 20 FT	Variance	all structures no closer than 15 FT
Parking (min.)	2 stalls/ main 1 stall/ ohana	31 stalls/ 42 units	Variance	1.3 stalls / 1 unit

Table 2

If the CPA and CIZ requests are granted, the 1968 variance would no longer need to be in effect. The requested CPA and CIZ actions are solely for the purpose of land use consistency as required by HRS 205A “Coastal Zone Management”. There is no intention of expanding the number of units nor is there an intention to build higher than what is presently configured (three-stories). Kahana Sunset will consider a limitation of any future development to existing heights as a condition of approval.

Public Shoreline Access Path. In compliance with Condition No. 15 of the SMA Emergency Permit for Emergency Protective Measures and Repairs to Building “A” Foundation and Adjacent Seawall (SM3 2010/0001), Kahana Sunset has proposed to provide an approximately 250-foot long access path to the beach along its southern boundary (See: Figure No. 15). It will follow the natural contour of the existing grade with risers at key intervals and is proposed to have a 6-inch thick crushed stone surface. The path will range in width between 38 and 60 inches, delineated by a six-foot high fence and a landscape planting buffer. At Building “F”, the existing planter will be removed and one of the trees will be replaced. The path at this point will have a concrete surface leading to concrete stairs to the beach. The old unused stairs, buttress, and other structural encroachments fronting the seawall in that area will be removed and the seawall in that section will be reconstructed. The existing



seawall at that beach access point will be reconstructed to include the new beach access stairs. For security, the path will be gated at both ends, with opening times between 9:00 AM and 7:00 PM.

G. SHORELINE SETBACK ASSESSMENT.

The shoreline fronting the parcel was submitted to the State of Hawaii by Valencia Land Surveying for certification based on a shoreline survey performed on July 1, 2011. (See: Appendix "E", "Shoreline Survey Map").

§12-203-6 "Establishment of shoreline setback lines" of the Shoreline Rules for the Maui Planning Commission states:

(a) *All lots shall have a shoreline setback line that is the greater of the distances from the shoreline as calculated under the methods listed below or the overlay of such distances:*

(i) *Twenty-five feet plus a distance of fifty times the annual erosion hazard rate from the shoreline;*

(ii) *Based on the lot's depth as follows:*

...

(C) *A lot with an average lot depth of one hundred sixty feet or more shall have a shoreline setback line located at a distance from the shoreline equal to twenty-five percent of the average lot depth, but not more than one hundred fifty feet.*

§12-203-4 of the Shoreline Rules states,

Where the shoreline is fixed by:

(1) *Artificial structures that are nonconforming or that have been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure, or*

(2) *Exposed natural stabilized geographic features such as cliffs and rock formations, the Annual Erosion Hazard Rate shall cease at the interface."*



The subject parcel is fronted by a high cliff and artificial structures “that have been approved by appropriate government agencies and for which engineering drawings exist to locate the interface between the shoreline and the structure.”

Using the Average Lot Depth (ALD) method, the shoreline setback is calculated as follows:

Average Lot Depth:	263.48
	432.04
	<u>+222.18</u>
	917.70
	$917.70 / 3 = 305.90$ feet
Setback:	$305.90 \times .25 = 76.48$ feet

Using the Annual Erosion Hazard Rate (AEHR) method, the shoreline setback is calculated as follows (See: Figure No. 12, “Annual Erosion Hazard Rate Map”):

<u>Transect</u>	<u>AEHR (feet)</u>		<u>Setback (feet)</u>
5	1.2		25 (85)
6	0.9		25 (70)
7	0.9		25 (70)
8	0.9	x 50 years + 25 feet	25 (70)
9	1.0		25 (75)
10	0.9		25 (70)
11	0.8		25 (65)

Assuming that shoreline is considered “fixed” (by legal artificial structures or natural features) at all transects, the effective setback is 25 feet.

Since the ALD setback is greater, the shoreline setback for the subject property is 76.48 feet.

All of existing Buildings “A” & “F” and portions of Building “B” are within the shoreline setback area. Chapter VII of this application addresses the justification for the Shoreline Setback Variance (SSV). Other than the drainage improvements, reconstruction of the seawall, relocation of amenities, landscape improvements, and shoreline access path and stairs, no other construction is proposed within the shoreline setback area.



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

A. PHYSICAL ENVIRONMENT

1. Land Use

Existing Conditions. The subject property is located in Napili, in an area known as Alaeloa, at TMK: (2) 4-3-015:003 (**See:** Figures No. 1 “Regional Location Map”, No. 2 “Aerial Map”, and No. 3 “Tax Map”). The parcel is located along Keonenui Bay, situated on the northwest coast of West Maui, seven miles north of Lahaina Town and 1.5 miles south of Kapalua. The parcel and surrounding parcels are zoned for residential use.

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

North:	<u>Zoning:</u> R-3 Residential <u>Community Plan:</u> Single Family, Public Quasi-Public <u>State Land Use:</u> Urban Existing uses: Single-Family Residence, Church.
South:	<u>Zoning:</u> R-3 Residential <u>Community Plan:</u> Single Family <u>State Land Use:</u> Urban Existing uses: Single-Family Residence.
East:	<u>Zoning:</u> A-1 Apartment <u>Community Plan:</u> Multi Family <u>State Land Use:</u> Urban Existing uses: Lower Honoapiilani Rd.; Multi-Family (Napili Villas).



West: Zoning: N/A
 Community Plan: N/A
 State Land Use: Conservation
 Existing uses: Pacific Ocean.

Potential Impacts and Mitigation Measures. The site of the proposed project is located within an area that is zoned for residential use and community planned for single family and multi-family residential uses. The property received a variance in 1968 permitting the construction of Kahana Sunset Condominium within the R-3 Residential District. Kahana Sunset is requesting a Community Plan Amendment and Change in Zoning in order to bring the existing use into conformity and have land use designations be consistent. Section IV.E of this report contains justification.

2. Shoreline Conditions and Processes

Existing Conditions. The subject property is located along Keonenui Bay, between Alaeloa Point and Haukoe Point, approximately 3500 feet south of Napili Bay. The beach in the project vicinity is a pocket beach typical of this stretch of coastline, about 500 - 600 feet long and nestled between the two headlands, which protrude 400 to 500 feet seaward. The properties north and south of Kahana Sunset are single family residences. Vertical rock and concrete walls protect the properties along the entire bay. A reef system, approximately 400 meters (1,300 feet) offshore, has a significant influence on wave energy as it approaches the shoreline (See: Appendix "F", "Wave Climate Study").

Along the bay, the sandy beach has its greatest width fronting the Kahana Sunset along approximately 180 feet of the southern *makai* boundary. To the south, the beach narrows dramatically, transitioning to an irregular, rough, rocky shore. To the north, the substrate at the base of the cliff is a volcanic conglomerate of variable hardness, with remnants of CRM facing in some areas.

As discussed in Section II.G, the Average Erosion Hazard Rate (AEHR) along the shoreline fronting Kahana Sunset ranges between 0.8 feet and 1.2 feet per year. Theoretically, this translates to 65 to 85 feet of shoreline loss within fifty years without any action to mitigate erosion. Given that Building "A" and Building "F" are both within the shoreline setback, it would be conceivable that at some point in the distant future, one or both of these buildings could be lost to natural processes (erosion, sea level rise, severe storm event, etc.).

Potential Impacts and Mitigation Measures. If one or both of Buildings "A" and "F" were lost to a catastrophic event, at that point in time, the ownership at Kahana



Sunset would need to decide whether or not to rebuild structures further inland. Due to site constraints, options would be limited, but could include rebuilding a similar structure in the location of the manager's unit, office and laundry, or over existing parking areas. Or the AOA membership may decide to not rebuild at all.

Construction of the proposed replacement seawall should have no significant negative impact on shoreline conditions and processes since the approximately 125-foot wall will replace an existing failing seawall. The remaining 500 feet of shoreline fronting Keonenui Bay is already armored with vertical walls. The proposed replacement wall will tie in to the existing vertical wall directly to the Building "A" wall to the north and the Building "F" wall to the south. Approximately 10 feet at the drainage outlet at the north end will be setback approximately 3 feet; the rest of the replacement wall will be built between approximately 10 and 30 feet landward of the existing seawall, increasing beach width accordingly. In addition to providing erosion protection, the seawall will retain fill on the landward side. Therefore, the replacement seawall is not anticipated to significantly impact existing coastal processes, and should not aggravate or contribute to further erosion.

3. Marine Resources

Existing Conditions. The nearshore seafloor in Keonenui Bay consists primarily of sand in the central part of the bay, and coral, limestone and rock along the perimeter and beyond about 400 feet offshore. There is a reef system, approximately 400 meters (1,300 feet) offshore (See: Appendix "F", "Wave Climate Study"). The coral reef is the predominant marine biota in the vicinity; however endangered species such as humpback whale, monk seal, green turtle and hawksbill turtle are known to frequent the waters offshore. The offshore waters of Hawaii are not designated "critical habitats" for any listed species at this time.

Potential Impacts and Mitigation Measures. The construction of the proposed sea/retaining wall on the subject property will take place at approximately 8 feet AMSL, and as such is expected to have no direct impact on marine resources. The wall construction is expected to be conducted during the season when tides and waves are at its lowest. This is generally during the spring and summer months. Best Management Practices (BMPs) will be implemented to mitigate construction-phase impacts on the nearshore environment. In the long term, construction of the wall may serve to improve turbidity conditions in the bay, given that the proposed action will mitigate further erosion of the silty clay substrate. Filters at the onsite drainage inlets will improve storm water quality by removing contaminants and pollutants before entering the ocean.



Monk seals, green turtles and hawksbill turtles are known to come ashore at random locations throughout the Hawaiian Islands and there have been documented sightings at Keonenui Bay. During construction, the following procedures will be implemented to mitigate any possible impacts to endangered species:

- A visual survey of the project area will be performed just prior to commencement or resumption of construction activity to ensure that no protected species are in the project area. If protected species are detected, construction activities will be postponed until the animals voluntarily leave the area.
- If any listed species enter the project area during the conduct of construction activities, all activities will cease until the animals voluntarily depart the area.
- All on-site personnel will be apprised of the status of any listed species potentially present in the project area and the protections afforded to those species under Federal laws.

The U.S Army Corps of Engineers has determined that since the proposed seawall is “above and shoreward of the Pacific Ocean” and “in-water activities will not occur”, a Department of Army (DA) permit for Section 10 and Section 404 activities will not be required (See: Appendix “L”).

4. Topography and Soils

Existing Conditions. The elevation on the project site ranges from approximately 49 feet above mean sea level (AMSL) along Lower Honoapiilani Road to approximately 8 feet AMSL at the base of the existing retaining walls along the sandy beach. The ground is generally sloping approximately 9% downward in a southwesterly direction toward the ocean.

According to the “Soil Survey of the 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 Kahana Silty Clay, 7 to 15 percent slopes, (KbC) and Rough Broken and Stony Land (rRS). KbC is characterized by slow runoff, slight to moderate erosion hazard, and moderately rapid permeability. The rRS series consists of very steep, stony areas where runoff is rapid (See: Figure No. 13, “Soils Map”).

Weidig Geanalysts prepared a *Geoanalytical Report* (2006) for Kahana Sunset that investigated and evaluated the geological conditions along the shoreline, particularly in the vicinity of the existing seawalls (See: Appendix “G”).



Potential Impacts and Mitigation Measures. The proposed retaining wall is intended to prevent further erosion of the property in order to protect the existing Kahana Sunset structures. The *Geoanalytical Report* (Weidig, 2006) concludes “that the sandy soils beneath the walls are amenable to stabilization and erosion protection by means of cementitious grout placement or injection with high-density, polyurethane foam” (p. 6). These measures will help to protect against future erosion that could undermine the walls. In the vicinity of the proposed replacement seawall, the existing topography of the property will be modified somewhat, but the rest of the property is expected to remain relatively the same.

5. Flood and Tsunami Zone

Existing Conditions. According to the United States Federal Emergency Management Agency (FEMA) FIRM Panel No. 1500030264E, dated September 25, 2009, the project site is situated in flood zones VE, AE, and X. Description as follows:

Zone	Definition
VE	1% annual chance flood (100-year flood). Coastal flood zone with velocity Base Floor Elevation (BFE) determined.
AE	1% annual chance flood (100-year flood). (BFE) determined.
X	Areas determined to be outside the 0.2% annual chance floodplain.

The BFE for both the VE and AE zones is 17 feet (**See:** Figure No. 7, “Flood Insurance Rate Map”).

Potential Impacts and Mitigation Measures. The site of the proposed retaining walls appears to be located in Flood AE, with a BFE of 17 feet. The proposed actions are not anticipated to have any adverse effects with respect to flooding since no habitable structures are being constructed. The proposed seawall will be engineered to withstand the calculated forces, thus reducing the likelihood that an extreme event would damage the structure. The proposed project should not be affected by nor have adverse impacts upon its neighbors with regards to flood hazard potential since drainage patterns are not expected to change significantly. See Section III.D.3 for a discussion on drainage.

6. Terrestrial Biota (Flora and Fauna)

Existing Conditions. No wetlands are present on or around the subject property. Existing vegetation on the property is primarily grasses and native and non-native



trees and shrubs, largely consisting of landscape planting such as mango, banana, shower, plumeria, papaya, citrus, ti, croton, hibiscus, bougainvillea, naupaka, fern, and ornamental palms. Avifauna typically found in the area includes the common mynah, several species of dove, cardinal, house finch, and house sparrow. Mammals common to this area include cats, dogs, rats, mice, and mongoose. No known rare, endangered, or threatened species of flora or fauna were observed on the subject property.

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

7. Air Quality

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

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

- Providing an adequate water source on site prior to start-up of construction activities.
- Landscape planting and rapid covering of bare areas, including slopes, beginning with the initial grading phase.



- Controlling of dust from shoulders, project entrances, and access roads.
- Providing adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities.
- Controlling of dust from debris hauled away from project site.

In the long term, the proposed project is not expected to significantly increase the volume of traffic in the region, which would increase vehicular emissions such as carbon monoxide. Thus, the proposed project is not anticipated to be detrimental to local air quality.

8. Noise Characteristics

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

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

9. Archaeological/Historical Resources

Existing Conditions. This parcel has been used as a condominium resort for the past 41 years. Before that it was owned by the Yabui family who resided there since the 1940s. The *Cultural Impact Assessment* (CIA) prepared for the project in March 2012 by Ms. Jill Engledow (See: Appendix "H"), notes that prior to that, the property was owned by a Chinese merchant who returned to China after selling to the Yabui family. Although historical evidence indicates that the area was sparsely populated, the bay was a popular fishing site.



An *Archaeological Monitoring Plan* (AMP) was prepared for the project in March 2012 by Archaeological Services Hawaii, Inc. (**See:** Appendix “I”). The AMP was accepted by the State Historic Preservation Division (SHPD) by a letter dated May 7, 2012. The AMP will be implemented to identify and prevent damage to any discovered archaeological or cultural remains or sites on the property.

Potential Impacts and Mitigation Measures. The AMP (ASH, 2012) prepared for the project recognizes that although there is likelihood of negative findings due to grading and construction, “... subsurface pre-Contact burials, remnant traditional cultural layers, historic refuse deposits, and buried architecture from both pre-Contact and historic periods may be extant ...” (p. 2). Therefore, ground disturbing activities will be monitored according to the AMP.

The proposed project is therefore not anticipated to have any impact on significant cultural and historic properties.

10. Visual Resources

Existing Conditions. The subject property is situated along the makai side of Lower Honoapiilani Road within a residential area of Napili. The parcel maintains a total of approximately 763 feet of frontage along Lower Honoapiilani Road and has an average lot depth of approximately 918 feet. The approximately 465 foot *makai* boundary of the property abuts the assumed shoreline.

Napili offers sweeping views of the Pacific Ocean, Lanai, and Molokai. Public views of these resources exist in various locations from Lower Honoapiilani Road and Honoapiilani Highway. Numerous scenic resources have been identified in the Napili area, which are identified and discussed in the Maui Scenic Coastal Resources Study, August 1990 (**See:** Figure No. 14, “Coastal Scenic Resources Map”). The resource/inventory map in this report identifies a “noteworthy” view of the island of Molokai from Honoapiilani Highway just north of the proposed project site. A “noteworthy” view “suggests a scene that is significant but not distinctive in its visual impact” (p. 4-3). The ocean is currently partially visible from Lower Honoapiilani Road fronting the subject property (**See:** Figure No. 9.1 “Site Photographs”).

Potential Impacts and Mitigation Measures. Since the proposed seawall will be at about 8 feet to 15 feet AMSL and the drain line is underground, the view through the subject property will be relatively unchanged. The topography of the site in relation to Lower Honoapiilani Road offers limited *makai* views through the site from the



road, which will be preserved. Due to the distance to Honoapiilani Highway and difference in elevation, the “noteworthy” view will not be impacted. As such, the proposed project is not anticipated to significantly impact public view corridors, or the visual character of the site and its immediate environs.

B. SOCIO-ECONOMIC ENVIRONMENT

1. Population and Housing

Existing Conditions. The population of the County of Maui has exhibited relatively strong growth over the past decade with a 2010 population of 154,834, a 20.9% increase over 2000 population of 128,094. The 2010 population of the Lahaina Region was 21,514, or 13.9% of Maui County's population (U.S. Census Bureau, Census 2010). Maui Island is expected to increase to 162,370 in 2020 and to 186,254 in 2030 (14.7% increase). Lahaina Region is expected to increase to 25,171 in 2020 (15.5% of Maui Island) and to 28,870 in 2030.

Potential Impacts and Mitigation Measures. The Maui County Department of Housing and Human Concerns determined that the Residential Workforce Housing Policy (Chapter 2.96, MCC) is not applicable to the proposed project. The proposed project will not lead to a direct impact on population levels since it is an existing residential condominium and no new units are proposed.

2. Economy

Existing Conditions. Like most of the population centers of Maui, the Lahaina economy was once based primarily upon the agricultural industry with the establishment of sugar mills in the 1800s. The closure of the Pioneer Sugar Mill in 1999 symbolized the final demise of large scale agriculture in the community. Today, tourism is the predominant industry. Also in the economic mix are small professional offices (financial, medical, legal), specialty retail (clothing, jewelry, book, antique), and ethnic restaurants.

Potential Impacts and Mitigation Measures. On a short-term basis, the project will support construction and construction-related employment. In the long term, the improvements will enhance an existing resort property which helps to sustain the visitor industry.



3. Cultural Resources

Existing Conditions. A *Cultural Impact Analysis* (CIA) was prepared by Ms. Jill Engledow (March 2012) for the project site (See: Appendix “H”). The CIA identifies the *ahupua’a* as Alaeloa, an area noted as a place known for its red soil and bountiful fishing, and a place where many battles were fought in precontact times.

Potential Impacts and Mitigation Measures. The CIA did not identify any cultural resources, i.e. medicinal plants, shoreline resources, religious sites that will be impacted by the project. Nor are there cultural sites in the immediate vicinity of the subject property that require access through the property. From a cultural practices and beliefs perspective, the subject property bears no apparent signs of cultural practices or gatherings taking place on the subject property or in the immediate vicinity of the subject property.

The CIA notes that:

... the proposed action does not interfere with any known Hawaiian or non-Hawaiian gathering, practices, protocols or access. Because this section of coastline has long been developed, with little provision made for beach access when it was built up decades ago, there is essentially no public access to this beach area except from the sea. Rather than a cultural issue, the proposed action is instead an environmental issue, and decisions about the impact of that action are more properly addressed by experts on the health of the shoreline and the ocean.

Kahana Sunset has proposed to provide an approximately 250-foot long access path to the beach along its southern boundary (See: Section II.F, page 17 for a detailed description) ~~is working cooperatively with the State Department of Land and Natural Resources (DLNR) and the County Planning Department to seek solutions for public access to the shoreline.~~

C. PUBLIC SERVICES

Potential Impacts and Mitigation Measures. Due to its location within an existing developed area, connections to existing infrastructure, and limited scope, the proposed project will not extend the limits of existing public services (recreational facilities, police and fire protection, schools, medical facilities and solid waste); therefore, the impact on public services will be minimal.



D. INFRASTRUCTURE

In April 2012, Marc M. Siah & Associates, Inc. prepared The *Preliminary Engineering Report for Kahana Sunset Condominium* (PER) which analyzes the project's off-site and on-site infrastructure systems (See: Appendix "J").

1. Water

The Maui Department of Water Supply (DWS) provides public water service for the West Maui region. In addition to the County, private water utilities such as the Kapalua Water Company and the Hawaii Water Service Company provide domestic water service for the Kapalua Resort and Kaanapali Resort, respectively. Domestic water and fire flow for the proposed project is provided by the County water system.

The project area is served by 8-inch and 12-inch County waterlines on Lower Honoapiilani Road. The subject property is presently serviced by a 1-1/2 inch water meter with a capacity of 100 gpm. Fire protection is provided by two (2) existing fire hydrants on Lower Honoapiilani Road.

Potential Impacts and Mitigation Measures. As recommended by DWS, during construction, the following Best Management Practices (BMP) plan will be implemented in order to protect ground and surface water sources:

- Prevent cement products, oil, fuel and other toxic substances from falling or leaching into the ground.
- Maintain vehicles and equipment to prevent oil or other fluids from leaking.
- Concrete trucks and tools used for construction should be rinsed off-site.
- Staging and storage of construction machinery and storage of debris should not take place on any sandy beach area.
- Properly and promptly dispose of all loosened and excavated soil and debris material from drainage structure work.
- Properly install and maintain erosion control barriers such as silt fencing.
- Disturb the smallest area possible.
- Retain ground cover until the last possible date.
- Stabilize denuded areas by sodding or planting as soon as possible.
- Keep run-off on site.
- No construction or toxic materials or debris should be placed where it may enter the ocean.



- Construction debris and sediment should be removed from construction areas each day that construction occurs to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Debris should be disposed of outside the coastal zone.

The proposed actions are not anticipated to increase potable water demand. As such, the proposed actions will not have any impact on potable water resources.

2. Sewer

An existing 18-inch sewerline, part of the County's Napili-Honokowai wastewater transmission system, runs along Lower Honoapiilani Road. Wastewater collected from the area is transported to the Lahaina Wastewater Reclamation facility located approximately 2¾ miles south of the project site. The *PER* (M. Siah, 2012) describes the property's sewer system thusly:

Wastewater system at Kahana Sunset has undergone major modifications and reconstruction since the inception of the development. Originally, the sewage collection and disposal system consisted of individual "Cavitette" wastewater treatment and disposal dry wells for each building. (p. 3-4)

Sometime in the 80s, this wastewater treatment system was abandoned on-site. The new system connects the existing 4-inch sewer laterals collecting wastewater from each building, to new sewer laterals which extend to a wet well and pumping station located in the central open yard adjacent to the pool. (p. 3-5)

Potential Impacts and Mitigation Measures. Based upon wastewater flow standards, the estimated wastewater flow from the existing complex is approximately 21,000 gallons per day. The proposed actions will not create additional demand. As such, the existing flow is expected to remain the same and no impacts to the public wastewater system are anticipated.

3. Drainage

The *Preliminary Drainage Report for Kahana Sunset Condominium* (PDR) was prepared by Marc M. Siah & Associates, Inc. in April 2012 (**See:** Appendix "K"). In the report, the existing drainage system is described as follows:

The existing drainage infrastructure on the property consists of drain lines of various sizes, drain inlets, drywells, storm drain manholes, and cobble-lined drainage channels which are located at strategic locations throughout the development to intercept, collect,



and convey storm runoff by means of a 36-inch outfall and several other smaller drainage pipes into the Keonenui Bay. (Sec. 2.5, p. 5)

The PDR summarizes the existing storm water flows as follows:

... total storm runoff generated on-site is calculated at 11.53 cfs. In addition to this flow, extraneous off-site flows entering the Kahana Sunset storm drain infrastructure include 9.12 cfs from County's L. Honoapiilani Road Right-of-Way, and unspecified quantity from the Napili Villas and mauka properties. In an agreement between the County and Kahana Sunset AOA, this quantity has been agreed to a maximum of 44 cfs as dictated by the capacity of the existing 24-inch culvert. In other words, the total off-site storm runoff entering into the Kahana Sunset drainage system can reach as high as 53.12 cfs. The total combined potential runoff from the Kahana Sunset, including off-site flow, discharging into the Keonenui Bay via the existing 36-inch outfall is 64.65 cfs. (Sec. 3.3.2, pp. 9 - 11)

As an addendum to the PDR, Marc Siah responded to the Maui Planning Commission's request to "Explore the origins and amounts of water volume that are released directly into the ocean through the drain outfall" with a letter dated July 29, 2013 (See: Appendix "O"):

An existing 36-inch outfall serves to deliver the overland flow into the Keonenui Bay. This outfall not only conveys all on-site storm runoff from Kahana Sunset, it also delivers storm runoff from Napili Villas development as well as 72-acres of land mauka of The Honoapiilani Highway and the Napilihau Road. A third component of storm water contribution to the Kahana Sunset drainage system is the surface runoff generated on a portion of the Lower Honoapiilani Road right-of way along the eastern boundary of the property. In other words, the total potential storm flow conveyed by the existing outfall into the bay consists of: a) on-site generated runoff on Kahana sunset property; b) the overflow from Napili Villas and upland areas; and c) the overland surface flow generated on portions of the roadway right-of-way along the eastern boundary of the development.

Based upon the preliminary drainage calculations, the proposed project is anticipated to decrease the existing runoff rate for a 10-year storm from 11.53 cfs to 11.35 cfs (PDR, M. Siah, 2012, Sec. 3.3.3, p 14). The 0.18 cfs decrease in runoff is due primarily to the expansion of the beach area and reduction of impervious surfaces. Maui County's proposed drainage improvements along Lower Honoapiilani Road may decrease the amount of surface and subsurface storm water entering the Kahana Sunset property.



Potential Impacts and Mitigation Measures. The *PDR* (M. Siah, 2012) recommends several improvements to the existing onsite drainage system, some of which would be located wholly or partially within the shoreline setback (**See**: Figure No. 11 “Existing Drainage System Plan”).

The entire length of Existing Storm Drainline (ESD) No. 5, a 300-foot long 36-inch corrugated metal pipe, is proposed to be replaced. Also, Open Channel No. 2 will be replaced by an inlet and a subsurface drainline connecting to ESD No. 5. This inlet and Inlets Nos. 1 & 2 will be retrofitted with filters to prevent the entry of pollutants.

As a temporary stop-gap measure, the *PDR* also recommends a sand bag barricade or an intercepting ditch along the roadway shoulder in order to protect the property from “localized erosion due to unimpeded stray overland flow of roadway storm runoff ...” (Sec. 4.2, p. 4). Filtration at Inlet Nos. 1 & 2 will remove sediments and pollutants from storm water and improve the quality of outflows to the ocean. While Kahana Sunset cannot control off-site storm water flows, the proposed improvements will reduce and improve storm water generated onsite. If it is determined that a National Pollutant Discharge Elimination System (NPDES) permit is required, one will be obtained by the contractor. An Erosion Control Plan will provide specific measures to mitigate erosion during construction. As such, drainage impacts are mitigated to the maximum extent by measures under the control of Kahana Sunset.

4. Roadway

Lower Honoapiilani Road, which provides access to the project site, is a two-lane, paved county roadway providing access for local traffic to properties in Napili and Kahana. It begins at its intersection with Honoapiilani Highway near Honokowai Stream in Kaanapali, and continues to its terminus in the Resort Community of Kapalua.

Potential Impacts and Mitigation Measures. Since the proposed project does not increase density or the number of units, no impacts to traffic are anticipated. Therefore, there are no significant impacts to Lower Honoapiilani Road and other roadways in the vicinity.

5. Electrical, Telephone, Cable and Data Systems

Existing electrical, telephone, cable and data systems serve the project and other properties in the vicinity. No increase in demand on these systems is expected, and therefore no significant impact is anticipated



IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS

A. STATE LAND USE LAW

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

B. COUNTY OF MAUI 2030 GENERAL PLAN

The 2030 update to the General Plan of the County of Maui is currently under review by the Maui County Council. The Countywide Policy Plan was adopted by the Maui County Council on March 19, 2010 and provides a long-term vision, principles, goals, policies, and objectives directed toward improving living conditions in the County. The following Themes, Objectives and Policies are applicable to the proposed project:

A. Protect the Natural Environment

Goal: Maui County's natural environment and distinctive open spaces will be preserved, managed, and cared for in perpetuity.

Objective:

3. Improve the stewardship of the natural environment.

Policies:

c. Evaluate development to assess potential short-term and long-term impacts on land, air, aquatic, and marine environments.

h. Provide public access to beaches and shorelines for recreational and cultural purposes where appropriate.

Analysis. This environmental assessment analyzes the proposed actions in the context of the natural environment. The proposed improvements have been designed to minimize any negative short-term or long-term impacts on land, air, aquatic, or marine environments. The applicant has proposed to provide an



~~approximately 250-foot long access path to the beach along its southern boundary (See: Section II.F, page 17 for a detailed description) is working cooperatively with the State Department of Land and Natural Resources (DLNR) and the County Planning Department to seek solutions to provide public access to the beach fronting Kahana Sunset.~~

F. Strengthen the Local Economy

Goal: Maui County's economy will be diverse, sustainable, and supportive of community values.

Objective:

- 1. Promote an economic climate that will encourage diversification of the County's economic base and a sustainable rate of economic growth.*

Policies:

- d. Support and promote locally produced products and locally owned operations and businesses that benefit local communities and local demand.*

Objective:

- 3. Support a visitor industry that respects the resident culture and the environment.*

Policies:

- d. Support the renovation and enhancement of existing visitor facilities.*

Analysis: In the short-term, the proposed action will provide construction-related opportunities for local businesses. The proposed actions have the effect of protecting and enhancing an existing visitor facility. In the long-term, the continued operation of an improved visitor destination indirectly supports visitor-related businesses.

G. Improve Parks and Public Facilities

Goal: A full range of island-appropriate public facilities and recreational opportunities will be provided to improve the quality of life for residents and visitors.

Objective:

- 1. Expand access to recreational opportunities and community facilities to meet the present and future needs of residents of all ages and physical abilities*

Policies:

- d. Protect, enhance, and expand access to public shoreline and mountain resources.*



Analysis. The applicant has proposed to provide an approximately 250-foot long access path to the beach along its southern boundary (See: Section II.F, page 17 for detailed description) ~~is working cooperatively with the State Department of Land and Natural Resources (DLNR) and the County Planning Department to seek solutions to provide public access to the beach fronting Kahana Sunset.~~

J. 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:

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

Policies:

b. *Direct urban and rural growth to designated areas.*

Objective:

4. ***Improve and increase efficiency in land use planning and management.***

Policies:

b. *Ensure that new development projects requiring discretionary permits demonstrate a community need, show consistency with the General Plan, and provide an analysis of impacts.*

Analysis: This parcel has been used as a condominium resort for the past 41 years. Before that it was owned by the Yabui family who resided there since the 1940s. The Cultural Impact Assessment notes that prior to that, the property was owned by a Chinese merchant who returned to China after selling to the Yabui family. The area is within the Urban Growth Boundary of the *Draft Maui Island Plan* of the County's *2030 General Plan Update* (May 2010). This report provides an analysis of the potential impacts of the subject project.

C. ~~DRAFT MAUI ISLAND PLAN~~

The 2030 update to the General Plan of the County of Maui ~~is currently under review by the Maui County Council~~ was approved by the Maui County Council and signed into law by the Mayor of Maui County on December 28, 2012. The Maui Island Plan ~~will be ultimately used to~~ determines the appropriateness of discretionary development proposals. The following Goals, Objectives and Policies of the ~~December 2009 Draft~~ Maui Island Plan are applicable to the proposed project:



POPULATION

Goal:

1.1 *Maui's people, values, and lifestyles will thrive through strong, healthy, and vibrant island communities.*

Objective:

1.1.1 *Greater retention of island residents by providing viable work, education, and lifestyle options.*

Policies:

1.1.1.b *Expand housing, transportation, employment, and social opportunities to ensure residents are able to comfortably age within their communities.*

Objective: *Maximize residents' benefits from the visitor industry, as measured by the percentage of residents earning a living wage, and ease the transition of new residents onto the island.*

Analysis. The proposed project is providing opportunities for employment in the short-term (construction related). The proposed actions have the effect of protecting and enhancing an existing visitor facility, indirectly supporting visitor-related businesses.

HERITAGE RESOURCES

Cultural, Historic, & Archaeological Resources

Goal:

2.1 *An island that respects and protects archaeological and cultural resources while perpetuating diverse cultural identities and traditions.*

Objective:

2.1.3 *Enhance the island's historic, archaeological, and cultural resources.*

Analysis. The proposed project is not located within any designated historic district. The Archaeological Monitoring Plan (AMP) (**See:** Appendix "I") prepared for the project (ASH, 2012) recognizes that although there is likelihood of negative findings due to grading and construction, "subsurface pre-Contact burials, remnant traditional cultural layers, historic refuse deposits, and buried architecture from both pre-Contact and historic periods may be extant." Therefore, ground disturbing activities will be monitored according to the AMP.



LAND USE

Urban Areas

Goal:

7.3 *Maui will have livable human scale urban communities, and efficient and sustainable land use patter, and sufficient housing and services for Maui residents.*

Objective:

7.3.4 *Seek to manage the impact of tourism on residents' qualities of life.*

Policies:

7.3.4.c *B. Manage transient rentals through permitting in accordance with adopted regulations and community plan policies.*

Analysis. The existing condominium-transient vacation rental use is authorized by the variance granted in 1968. Kahana Sunset wishes to bring the use into conformity by seeking a Community Plan Amendment and Change in Zoning.

D. WEST MAUI COMMUNITY PLAN

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

The subject property is located within the West Maui Community Plan area and has a SF Single Family designation (See: No. 5, "West Maui Community Plan"). The West Maui Community Plan was adopted by ordinance No. 2476 on February 27, 1996. The applicant is requesting a Community Plan Amendment to change the designation from *SF Single Family Residential* to *H Hotel*. This Draft Environmental Assessment examines any impacts this amendment might have on the immediate area.

The following West Maui Community Plan goals, objectives, and policies are applicable to the proposed action:

Goal: Land Use. *An attractive, well-planned community with a mixture of compatible land uses in appropriate areas to accommodate the future needs of residents and*



visitors in a manner that provides for the stable social and economic well-being of residents and the preservation and enhancement of the region's open space.

Analysis. The project site is community planned for single family residential use. The property was granted a variance for the "Construction of an Apartment Building with Accessory Uses". The project is low rise (3-stories or less) and is compatible with the scale of surrounding properties. The Applicant does not intend to introduce new uses on the property. Infrastructure in the area is adequate and the existing use is consistent with land use objectives.

Goal: Environment. *A clean and attractive physical, natural and marine environment in which man-made developments on or alterations to the natural and marine environment are based on sound environmental and ecological practices, and important scenic and open space resources are preserved and protected for public use and enjoyment.*

Objectives and Policies:

1. *Protect the quality of nearshore and offshore waters. Monitor outfall systems, streams and drainage ways and maintain water quality standards. Continue to investigate, and implement appropriate measures to mitigate, excessive growth and proliferation of algae in nearshore and offshore waters.*

11. *Prohibit the construction of vertical seawalls and revetments except as may be permitted by rules adopted by the Maui Planning Commission governing the issuance of Shoreline Area Management (SMA) emergency permits, and encourage beach nourishment by building dunes and adding sand as a sustainable alternative.*

Planning Standards:

6. Environmental Aspects
 - c. *Prohibit the construction of vertical seawalls, except as approved by the Planning Commission of the County of Maui*

Analysis: In consideration of the alternatives, the proposed action (constructing approximately 125 feet of seawall) was judged to be the most practical alternative. The seawall is for the protection and the safety of habitable structures and will be constructed in accordance with the SMA Rules of the Maui Planning Commission.



As described in Sections II and III of this report, the proposed wall is a long-term solution to address an impending public safety hazard as well as a physical hazard to structures on the subject property and adjacent properties. The project will also help protect the quality of nearshore waters as recommended by the West Maui Community Plan by aiding in the prevention of earthen soils from being eroded and transported to the coastal waters via wave action and runoff from *mauka* portions of the site.

Inlet Nos. 1 & 2 on the Kahana Sunset property will utilize filters to improve the quality of onsite generated stormwater that outfalls at the shoreline. The filters will remove sediment and pollutants from stormwater before it enters the existing drainage system and will help to reduce contamination of the marine environment.

E. MAUI COUNTY ZONING

The subject property is situated within the County of Maui's R-3 Residential District (See: Figure No. 6, "County Zoning Map"). The applicant is requesting a Change in Zoning (CIZ) from R-3 Residential District to H-M Hotel District. A request for a CIZ must meet the following criteria as found in MCC § 19.510.040.4:

1. *The proposed request meets the intent of the general plan and objectives and policies of the community plans of the county;*

Analysis: As described in Section IV, subsection C and D, the proposed action meets the intent of the General Plan and the objectives and policies of the West Maui Community Plan.

2. *The proposed request is consistent with the applicable community plan land use map of the county;*

Analysis: The West Maui Community Plan, adopted in 1996 by ordinance, identifies a portion of the subject parcel as Single Family Residential. The applicant is concurrently requesting a Community Plan Amendment (CPA) in order to establish consistency between the existing use and the proposed Hotel designation. With the granting of the CPA, the proposed rezoning of this property will be consistent with the Community Plan Land Use Map.

3. *The proposed request meets the intent and purpose of the district being requested;*



Analysis: Pursuant to MCC Chapter 19.14, the Hotel District is described as follows:

A hotel district is a high density multiple-family area bordering business districts and ocean fronts. This district includes public and semi-public institutional and accessory uses. This district is basically residential in character and, as such, should not be spotted with commercial enterprises.

The proposed Change in Zoning accomplishes this objective and will allow for a land use that is in character with the existing residential and multi-family urban uses of the area. Additionally, with the approval of the CPA request, the proposed zoning will conform to the County General Plan and creates consistency with the Community Plan land use designation.

4. *The application, if granted, would not adversely affect or interfere with public or private schools, parks, playgrounds, water systems, sewage and solid waste disposal, drainage, roadway and transportation systems, or other public requirements, conveniences and improvements.*

Analysis: Since the project is an existing use and there are no plans to increase density, the proposed Change in Zoning will not significantly impact schools, parks, playgrounds, water systems, sewage and solid waste disposal, drainage, traffic, or other public infrastructure and services. Details are discussed in Section III, Items C and D,

5. *The application, if granted would not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area.*

Analysis: Since the project is an existing use and there are no plans to increase density, the proposed action will not adversely impact the social, cultural, economic, environmental, and ecological character and quality of the surrounding area. Details are discussed in Section III.

6. *If the application change in zoning involves the establishment of an agricultural district with a minimum lot size of two acres, an agricultural feasibility study shall be required and reviewed by the Department of Agriculture and the U.S. Soil Conservation Service.*

Analysis: Not Applicable.



F. MAUI COUNTY SHORELINE RULES

Chapter 205A, Hawaii Revised Statutes (HRS), and Title MC-12, Subtitle 02, Chapter 203, *Shoreline Rules for the Maui Planning Commission*, sets forth the requirements for structures and activities taking place within the Shoreline Setback Area (SSA). The Shoreline Setback Area is defined in Subchapter 1, §12-203-4, thusly:

... means "shoreline area" as defined in HRS chapter 205A, as amended, which includes all of the land area between the shoreline and the shoreline setback line, ...

The Shoreline Rules for the Maui Planning Commission, Subchapter 2, §12-203-12, "Permitted Structures and Activities Within the Shoreline Setback Area," lists specific structures and activities that are allowed within the SSA. Structures or activities that are prohibited may request a Shoreline Setback Variance (SSV).

Since the proposed replacement seawall and drainage system improvements are not on the "permitted" list, an SSV is requested and the justification is presented in Section VII.

G. CLIMATE CHANGE ADAPTATION PRIORITY GUIDELINES

HRS Chapter 226, Part III Climate Change Priority Guidelines serve as a guiding policy for adapting to the expected impacts of climate change through the existing implementation provisions of the Hawaii State Planning Act.

Priority guidelines to prepare the State to address the impacts of climate change, including impacts to the areas of agriculture; conservation lands; coastal and nearshore marine areas; natural and cultural resources; education; energy; higher education; health; historic preservation; water resources; the built environment, such as housing, recreation, transportation; and the economy shall:

(5) Encourage the preservation and restoration of natural landscape features, such as coral reefs, beaches and dunes, forests, streams, floodplains, and wetlands, that have the inherent capacity to avoid, minimize, or mitigate the impacts of climate change;

(6) Explore adaptation strategies that moderate harm or exploit beneficial opportunities in response to actual or expected climate change impacts to the natural and built environments;

Analysis: The specific impact of climate change relative to this project is sea level rise, which will have adverse effects on all shoreline communities, our



economies, and our natural and cultural resources. By reconstructing the seawall further away from the shoreline, the proposed project effectively restores more beach area, and is a strategic retreat designed to ensure the protection of habitable structures of Kahana Sunset for an extended period of time.



V. SPECIAL MANAGEMENT AREA OBJECTIVES AND POLICIES

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

A. RECREATIONAL RESOURCES

Objective: Provide coastal recreational resources accessible to the public.

Policies:

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



- (vi) *Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters;*
- (vii) *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, and artificial reefs for surfing and fishing;*
- (viii) *Encourage reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use commission, board of land and natural resources, county planning commissions; and crediting such dedication against the requirements of Section 46-6, HRS.*

Analysis. The project site abuts the shoreline; however, the proposed project will not have a direct impact on the public's use or access to the shoreline area. Public beach access exists at Hui Road E, approximately 500 feet to the south of the project site. The applicant is proposing to provide an approximately 250-foot long access path to the beach along its southern boundary (See: Section II.F, page 17 for a detailed description) ~~is working cooperatively with the State Department of Land and Natural Resources (DLNR) and the County Planning Department to seek solutions to provide public access.~~

The subject parcel abuts Keonenui Bay, a small bay located between two rocky headlands. The entire length of the shoreline along the bay is armored with vertical seawalls. The project will enhance safety in the shoreline area immediately beneath the subject property and aid in protection of nearshore waters from erosion-borne sediment. Therefore, the improvement will not narrow the usable section of the beach and will not inhibit lateral access along the shoreline.

B. HISTORICAL/CULTURAL RESOURCES

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

Policies:

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



Analysis. As discussed in Section III.A.9 above, an *Archaeological Monitoring Plan* (ASH, 2012) (See: Appendix “I”) will be implemented to identify and prevent damage to any discovered archaeological or cultural remains or sites on the property. A *Cultural Impact Assessment* (Engledow, 2012) (See: Appendix “H”) identified no potential impacts to native Hawaiian cultural resources or practices as a result of the proposed project. Based on these findings, it is unlikely that the proposed actions will have a significant impact on historical or cultural resources.

C. SCENIC AND OPEN SPACE RESOURCES

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

Policies:

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

Analysis. As discussed in Section III.A.10 of this report, numerous scenic resources have been identified in the Napili area, which are identified and discussed in the Maui Coastal Scenic Resources Study, August 1990 (See: Figure No. 14, “Coastal Scenic Resources Map”). The resource/inventory map in this report identifies *makai* view of the island of Moloka’i as a “noteworthy” scenic resource in the immediate vicinity of the project site.

The proposed actions will not interfere with public views toward the ocean (See: Figures No. 9.1, “Site Photographs,” and No. 14, “Coastal Scenic Resources Map”). The proposed seawall will utilize a similarly textured masonry facing to be consistent with the existing seawall fronting Building “F”. The height of the proposed replacement wall will also match the height of the existing Building “F” seawall at its south end, gradually sloping upward to match the existing wall height at Building “A”.



D. COASTAL ECOSYSTEMS

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

Policies:

- (a) Improve the technical basis for natural resource management;*
- (b) Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;*
- (c) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and*
- (d) Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.*

Analysis. The proposed project will protect the quality of the nearshore marine environment by preventing siltation from erosion of the sea cliff. In addition, onsite generated stormwater will be filtered at drainage Inlet Nos. 1 & 2 to limit the release of pollutants into coastal waters. Based upon existing development within the project area, it is unlikely that the proposed improvements will have a significant impact on coastal ecosystems.

E. ECONOMIC USES

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

Policies:

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



- (iii) *The development is important to the State's economy.*

Analysis. The existing condominium-resort use of the property is consistent with the State's urban land use designation. The proposed land use designations will bring conformity and consistency to the Maui County Zoning and West Maui Community Plan designations. As such, the proposed project is within an area that has an existing condominium-resort use with adequate supporting infrastructure and services.

The proposed wall will stabilize the erosion prone shoreline at the subject property, leading to both public benefits and private benefits to the applicant and neighboring landowners. Public benefits will include the removal of a safety hazard, and prevention of soils entering coastal waters. Private benefits include greater site safety and the prevention of loss of property and structures.

F. COASTAL HAZARDS

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

Policies:

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

Analysis. The proposed action will protect the landward portion of the property and associated structures from erosion due to storm waves. Stabilization of the shoreline will provide greater site safety to other residents living along the shoreline. Shoreline stabilization will also protect the beach and nearshore waters from impacts related to eroded soils transported by wave action or inland runoff.



G. MANAGING DEVELOPMENT

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

Policies:

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

Analysis. The development of the subject property is being conducted in accordance with applicable State and County requirements. Opportunity for review of the proposed action is provided through the County's Special Management Area (SMA) permitting process and the State's Environmental Assessment (EA) review process.

H. PUBLIC PARTICIPATION

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

Policies:

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

Analysis. Early Consultation was conducted with applicable government agencies, as well as with neighbors within 500 feet of the subject property, as part of the preparation of this Draft EA. (See: Appendix "A" "Summary of Public and Agency Consultation").

In conjunction with the submittal of the Special Management Area application, a notice of application will be mailed to property owners within 500 feet. The mail-out



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

I. BEACH PROTECTION

Objective: Protect beaches for public use and recreation.

Policies:

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

Analysis. The project will involve the replacement and improvements to an existing seawall and drainage system, relocation of a gazebo and shower within the shoreline setback area; therefore, a Shoreline Setback Variance is required, which is the subject of Section VII of this report. The proposed seawall is an aesthetic and engineered solution which improves public safety and does not interfere with the public's use of the beach. The rebuilding of the retaining wall further inland will widen the beach between approximately ten (10) and thirty (30) feet.

Some of the drainage system improvements will take place outside of the shoreline setback, calculated at 76.428 feet from the assumed shoreline. This portion of the proposed project is not anticipated to have a direct physical impact upon any public beaches.

J. MARINE RESOURCES



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

Policies:

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

Analysis. The proposed project does not involve the direct use or development of marine resources. In addition, with the incorporation of erosion and drainage control measures during construction and after construction as identified in this report, there should not be significant adverse impacts to nearshore waters from point and non-point sources of pollution. Therefore, the subject project will not produce any significant impacts on any coastal or marine resources. (See: Section III.A.3 for a detailed discussion on existing conditions and potential impact and mitigation measures for marine resources.)



VI. ENVIRONMENTAL ASSESSMENT SIGNIFICANCE CRITERIA

Since the proposed project involves an action within the Shoreline Setback Area and a Community Plan Amendment, an Environmental Assessment is required by Chapter 343, Hawaii Revised Statutes (HRS). A finding of no significant impact (FONSI) is anticipated and therefore an Environmental Impact Statement (EIS) will not be required for the proposed action. In accordance with Title 11, Department of Health, Chapter 200 and Subchapter 6, §11-200-12, Environmental Impact Statement Rules, and based on the detailed analysis contained within this document, the following conclusions are supported.

1. **The proposed action will *not* result in an irrevocable commitment to loss or destruction of natural or cultural resources.**

Analysis. As documented in this report, the proposed project will take appropriate mitigative measures to prevent the loss or destruction of any natural or cultural resource (See: Section III).

2. **The proposed action will *not* curtail the range of beneficial uses of the environment.**

Analysis. The subject property is within the State's Urban District and is zoned and community planned to allow for single-family residential development. However, the existing condominium-hotel, built in 1971, obtained a variance for the existing use in 1968. There are no plans to expand this use; therefore, there are no significant impacts to environmental or natural resources on the property.

The proposed replacement seawall and drainage improvements will enhance safety in the shoreline area immediately fronting the subject property, and will also aid in protection of nearshore waters from erosion-borne sediment. The proposed improvements will not narrow the area available for lateral access. Based upon existing development on neighboring properties, it is unlikely the improvements will result in a significant change to the coastal area. Thus, the proposed action will not curtail the range of beneficial uses of the environment.



- 3. The proposed action will *not* conflict with State or County long-term environmental policies and goals as expressed in Chapter 344, HRS, and those which are more specifically outlined in the Conservation District Rules.**

Analysis. The project is being developed in compliance with the State's long-term environmental goals. As documented in this report, appropriate mitigation measures will be implemented to minimize the potential for negative impacts to the environment, including near and off-shore coastal waters. The project will not have any impact on flora and fauna, and is not expected to have a negative impact on archaeological or cultural resources.

- 4. The proposed action will *not* substantially affect the economic or social welfare and activities of the community, county or state.**

Analysis. The proposed project will improve public safety in the immediate area. Short-term economic impacts will result from the increase in activity associated with the construction of the project. Because of the limited scope of this project, impacts on the socio-economic environment will be minimal (See: Section III.B).

- 5. The proposed action will *not* substantially affect public health.**

Analysis. There are no special or unique aspects of the project that will have a direct impact on public health.

- 6. The proposed action will *not* result in substantial secondary impacts.**

Analysis. The proposed project is not a population generator nor does it trigger any Maui County residential workforce housing requirements. Increased activity at the site during the construction phase may result in a marginal increase in traffic and associated noise and air pollution. However, as analyzed in Section III of this report, the increase in the level of these impacts is minimal and with the incorporation of mitigation measures will not substantially impact the environment.

Based on existing development in the project vicinity, the proposed improvements are not expected to cause any secondary effects that would significantly impact the coastal area.

- 7. The proposed action will *not* involve substantial degradation of environmental quality.**



Analysis. Mitigation measures will be implemented during the construction phase in order to minimize negative impacts on the environment, especially with regards to construction runoff. The design of the proposed project has incorporated mitigation measures to minimize impacts to nearshore water quality that could arise from an increase in runoff generated on the site as a result of the project (See: Section III.D.3 for a discussion of drainage). The proposed wall will prevent the erosion of earthen, silty soils and associated degradation of coastal waters. Other environmental resources such as endangered species of flora and fauna, air and water quality, and archeological resources will not be significantly impacted by the subject project.

- 8. The proposed project will not produce cumulative impacts and does *not* have considerable effect upon the environment or involve a commitment for larger actions.**

Analysis. The proposed project does not involve a commitment for larger action on behalf of the applicant or any public agency. The subject property is State and County zoned and community planned for urban development, and as such, is part of the planned future growth of the region. As described in this report, the project will not significantly impact public infrastructure and services including roadways, drainage facilities, water systems, sewers and educational facilities. In addition, the project is not anticipated to induce an overall significant increase in population growth and will therefore not produce considerable effect on the environment nor require a commitment for larger actions by governmental agencies.

Armoring of a shoreline area is known to lead to successive armoring of adjacent shoreline areas, which creates a larger (cumulative) structure that can have greater impacts. As discussed above, most of the shoreline at Keonenui Bay is either naturally hardened or artificially armored with vertical reinforced concrete stone masonry seawalls. The natural wave action in the area is magnified and continues to erode the clay and ash substrate below the base of the unprotected natural walls of Keonenui Bay, threatening public safety and adding silt to the adjacent coastal waters. Given that total shoreline armoring exists, construction of the proposed replacement seawall will not encourage additional development or require a commitment for larger actions.

- 9. The proposed project will *not* affect a rare, threatened, or endangered species, or its habitat.**



Analysis. As described in Section III.A.6 of this report, there are no rare, threatened, or endangered species of flora and fauna at the project site.

10. The proposed action will *not* substantially or adversely affect air and water quality or ambient noise levels.

Analysis. As described in Section III of this report, there is a potential for negative impacts to air or water quality and ambient noise levels related to short-term construction activities. Air, noise and dust impacts will be mitigated through implementation of standard mitigation measures as identified previously in this report. It is not anticipated that there will be significant long-term impacts to air or water quality and ambient noise levels due to the operation phase of the development.

11. The proposed action will *not* substantially affect or be subject to damage by being located in an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone areas, estuary, fresh waters, geologically hazardous land or coastal waters.

Analysis. According to Panel No. 15003-0264E of the Flood Insurance Rate Map, September 25, 2009, prepared by the United States Federal Emergency Management Agency (FEMA), the project site is situated primarily in flood zone X, with portions of the subject property along the shoreline lying within Zones AE and VE. Zone AE represents areas of 100-year flood, with base flood elevations and flood hazard factors determined; Zone VE represents areas of 100-year coastal flood with velocity (wave action), with base flood elevations and flood hazard factors determined. The proposed improvements will be sited in Flood Zone AE (See: Figure No. 7, "Flood Insurance Rate Map"). The proposed replacement seawall will be engineered to withstand the design forces calculated by the structural and coastal engineers, thus reducing the likelihood that an extreme event would damage the structure. The proposed project therefore should not be affected by flood hazard, or have adverse an impact upon its neighbors with regards to flood hazard potential.

12. The proposed action will *not* substantially affect scenic vistas or view planes identified in county or state plans or studies.

Analysis. As described in Section III.A.10 of this report, there will be no significant change in the project's overall effect on *mauka* or *makai* views from what exists currently, therefore the proposed project is not expected to have any significant adverse effects on visual resources. Figures Nos. 9.1 - 9.4, "Site Photographs," and



No. 10, “Concept Master Plan” document the project’s potential impacts on visual resources.

13. The proposed action will not require substantial energy consumption

Analysis. It is not anticipated that any increase in energy consumption resulting from build-out of the project will be significant within the context of existing levels of power consumption or vehicular energy usage in the region, and on Maui.



VII. JUSTIFICATION FOR SHORELINE SETBACK VARIANCE

As set forth in the Shoreline Rules for the Maui Planning Commission, §12-203-2, "Purpose":

Due to competing demands for utilization and preservation of the beach and ocean resources, it is imperative:

(1) That use and enjoyment of the shoreline area be ensured for the public to the fullest extent possible;

The proposed project will not prevent the public from full use and enjoyment of the shoreline area to which it is already entitled.

(2) That the natural shoreline environment be preserved;

The shoreline area fronting the subject property is composed coralline beach sand, "overlying shreds of pelagic coral reef which in turn overlie basaltic lava flow ..." (See: Appendix "G", "Geoanalytical Report", IGE, 2006, p. 3). A portion of the proposed replacement seawall is just landward of the assumed shoreline, then retreats approximately 30 feet *mauka*. All of drainage system improvements are *mauka* of the shoreline. Therefore the proposed project is not expected to alter the natural shoreline environment.

(3) That man-made features in the shoreline area be limited to features compatible with the shoreline area;

The proposed action involves the construction of a replacement seawall to armor the shoreline, which will connect to an adjacent shoreline armoring structure of similar design to the south and to the CRM structure to the north (See: Figures Nos. 9.1 - 9.4, "Site Photographs" and No. 10, "Concept Master Plan"). The adjacent shoreline armoring structures in turn adjoins a series of similar structures armoring the remaining shoreline along Keonenui Bay extending south to Haukoe Point and north to Alaeloa Point. The proposed action therefore does not include any new actions or features that are incompatible with the shoreline as it currently appears.



(4) *That the natural movement of the shoreline be protected from development;*

The proposed action involves the construction of a replacement seawall within the shoreline setback area as determined by the Average Lot Depth (ALD) method. As previously noted, the entire shoreline in Keonenui Bay is hardened either naturally or with artificial protective structures. The proposed project is therefore not expected to affect natural movement of the shoreline or other coastal processes in a manner different from existing conditions (See: Appendix “F”, “Wave Climate Study”).

(5) *That the quality of scenic and open space resources be protected, preserved, and where desirable, restored; and*

As discussed in Section III.A.10, the proposed project will not have a significant effect on the quality of scenic and open space resources. Since the site slopes from the *mauka* boundary at approximately 49 feet above mean sea level (AMSL) to approximately 8 feet AMSL at the *makai* boundary, and since the proposed replacement seawall and drainage system improvements do not impact existing *makai* views through the project site, the project will not interfere with public views to and along the shoreline. The proposed replacement seawall will be constructed in such a way as to transition into neighboring walls and minimize visual impacts when viewed from the *makai* side.

(6) *That adequate public access to and along the shoreline be provided.*

Public access to the shoreline exists approximately 500 feet to the south of the site. Kahana Sunset is proposing to provide an approximately 250-foot long access path to the beach along its southern boundary (See: Section II.F, page 17 for detailed description) ~~is continuing to work with the DLNR and the County to provide a practical solution for providing public access to the shoreline.~~ The proposed project does not restrict public lateral access along the shoreline.

The variance request must meet §12-203-15 “Criteria for approval of a variance”:

(a) *A shoreline area variance may be granted for a structure or activity otherwise prohibited by this chapter, if the commission finds in writing, based on the record presented, that the proposed structure or activity is necessary for or ancillary to:*

(4) *Drainage;*



(8) *Private facilities or improvements which will neither adversely affect beach processes nor artificially fix the shoreline; provided that, the commission also finds that hardship will result to the applicant if the facilities or improvements are not allowed within the shoreline area;*

and:

(b) *A structure or activity may be granted a variance upon grounds of hardship if:*

(1) *The applicant would be deprived of reasonable use of the land if required to fully comply with the shoreline setback rules;*

The proposed actions include improvements to the existing onsite drainage system which is not only an outfall for onsite stormwater, but serves as a regional outlet for storm water collected offsite and upstream. The condition of the existing seawall, along with documentation of prior erosion at the site, indicates that if left unchecked, the existing seawall will eventually collapse and erosion will continue, eventually threatening habitable structures on the property. Kahana Sunset would eventually lose more of its central courtyard and would be deprived of its reasonable use.

(2) *The applicant's proposal is due to unique circumstances and does not draw into question the reasonableness of the shoreline setback rules; and*

The proposed project does not draw into question the reasonableness of the shoreline setback rules. The purpose of the proposed replacement seawall is to prevent future erosion of the property and potential undermining of the habitable structures; to prevent earthen soils from eroding and entering the coastal waters; and to remove the public hazard associated with the eventual collapse of the existing wall.

(3) *The proposal is the practicable alternative which best conforms to the purpose of the shoreline setback rules.*

As discussed in the above written justification for the requested variance, and in Section II.F of this document, the preferred alternative is the practicable option which best conforms to the purpose of the Shoreline Setback Rules.

(c) *Before granting a hardship variance, the commission must determine that the applicant's proposal is a reasonable use of the land. Because of the dynamic nature of the shoreline environment, inappropriate development may easily pose a risk to individuals or to the public health and safety. For this reason, the determination of the reasonableness of the use of land should properly consider factors such as shoreline conditions, erosion, surf and flood conditions and the geography of the lot.*



Shoreline conditions. The shoreline is analyzed in the *Wave Climate Study* prepared by Dr. Marc Siah (August 2011) (See: Appendix “F”). Shoreline processes are also discussed in Section III.A.2.

Erosion. The Annual Erosion Hazard Rate (AEHR) ranges from 0.8 feet to 1.2 feet per year. However, in accordance with Chapter 203, “Shoreline Rules for the Maui Planning Commission”, since the shoreline is fixed by government approved structures, there is no AEHR.

Surf conditions. The *Wave Climate Study* (M. Siah, 2011) discusses the wave transformation process for swells and wind generated waves. The study characterizes Keonenui Bay as follows:

“The area is subject to north swells and trade wind waves which undergo significant transformation due to shallow shelves, headlands, and the fringing reefs. The coastline fronting the property historically experiences problems associated with chronic erosion of the beach and wave overwash of existing sea wall foundations and other coastal fortifications along the coastline. ...

The large oblique incident angles as well as the shallow nearshore reef system, greatly reduce the height of the wind waves as they approach the Kahana Sunset.” (p. 18)

The study concludes that moderate swells may not present a beach erosion hazard, but peak swell event surges:”

“... may overtop the beach with floodwater inundating approximately 60 feet inland reaching the existing seawalls and other infrastructures. This inundation is the major reason for undermining and erosion of footings of walls and other coastal fortifications on the property.” (p. 18)

Flood conditions. As previously noted in Section III.A.5 “Flood and Tsunami Zone”, the site of the proposed retaining wall appears to be located in Flood Zone AE, with a BFE of 17 feet. The proposed actions are not anticipated to have any adverse effects with respect to flooding since no habitable structures are being constructed. The proposed seawall has been designed by a licensed structural engineer to withstand the calculated forces, thus reducing the likelihood that an extreme event would damage the structure.

Geography. As previously noted in Section III.A.4 “Topography and Soils”, the elevation on the project site ranges from approximately 49 feet above mean sea level (AMSL) along Lower Honoapiilani Road to approximately 8 feet AMSL at the base of the existing retaining walls along the sandy beach. The ground is generally sloping approximately 9% downward in a southwesterly direction toward the ocean.

The *Geoanalytical Report* (Weidig, 2006) (See: Appendix “G”) describes the site’s geologic setting as follows:



"The subject sea wall sites are indicated to be underlain by beach sand composed mainly of pulverized coral and seashells. The beach sands are extremely erodible and shift constantly under tidal action. The inland side of the wall system is underlain by a soil horizon composed of coralline sand assigned to the Jaucas series. These soils have a low expansion potential as well as a low corrosion potential with respect to uncoated steel and concrete. On relatively flat ground, such as typical of the land behind the sea wall, the erosion hazard due to water is considered slight, but susceptibility to wind erosion is considered severe where vegetation has been removed (Foote, et al., 1972)." (p. 3)

The report goes on to recommend grouting options to support seawalls that "should extend to the bedrock surface in every case." As such, the proposed replacement sea wall has been designed to be anchored to bed rock.

The proposed replacement sea wall will not pose a risk to individuals or to the public health and safety; therefore, it is not an inappropriate development.

(d) For purposes of this section, hardship shall not include: economic hardship to the applicant; county zoning changes, planned development permits, cluster 203-21 permits, or subdivision approvals after June 16, 1989; any other permit or approval which may have been issued by the commission. If the hardship is a result of actions by the applicant, such result shall not be considered a hardship for purposes of this section.

Hardship is not based on any of the preceding reasons. It is based on Kahana Sunset's reasonable use of its property.

(e) No variance shall be granted unless appropriate conditions are imposed:

(1) To maintain and require safe lateral access to and along the shoreline for public use or adequately compensate for its loss;

The proposed action improves lateral public access along the shoreline by widening the beach fronting the proposed seawall. In addition, public access to the shoreline is being provided where none currently exists.

(2) To minimize risk of adverse impacts on beach processes;

The proposed action seeks to avoid or minimize impacts on beach processes.

(3) To minimize risk of structures failing and becoming loose rocks or rubble on public property; and

The proposed action includes that removal of a failing structure that will prevent hazards to the public.



(4) To minimize adverse impacts on public views to, from, and along the shoreline. For purposes of this section only, "adversely impacts public views" means the adverse impact on public views and open space resources caused by new building structures exceeding a one-story or thirty-foot height limitation; and

The proposed action does not involve construction of structures exceeding one story nor does it have any adverse impact on public views.

(5) To comply with chapters 19.62 and 20.08, Maui County Code, relating to flood hazard districts and erosion and sedimentation control respectively.

The proposed action will comply with flood requirements in Chapter 19.62 MCC. Best Management Practices (BMP) to prevent erosion and sedimentation during construction will be observed in compliance with Chapter 20.08 MCC.

(f) Notwithstanding any provision of this section to the contrary, the commission may consider granting a variance for the protection of a legal habitable structure or public infrastructure; provided that, the structure is at risk of damage from coastal erosion, poses a danger to the health, safety and welfare of the public, and is the best shoreline management option in accordance with relevant state policy on shoreline hardening.

The proposed seawall will protect habitable structures from flank erosion. In addition, portions of the existing seawall fronting Building "F" have been repaired (under emergency permits) for continued protection. The engineered design of the proposed seawall will minimize risk of damage from coastal erosion and will not pose any danger to the health, safety, and welfare of the public. The State Department of Land and Natural Resources (DLNR) has reviewed plans for the proposed action and provided comments and support.



VIII. FINDINGS AND CONCLUSIONS

This ~~Draft~~ Final Environmental Assessment examines the environmental and socio-economic impacts associated with the applicant's proposal to construct a replacement seawall to stabilize the shoreline and protect existing habitable structures, and to construct drainage system improvements. A shoreline public access path will also be provided. The applicant is also proposing a Community Plan Amendment (CPA) from Single Family to Hotel and a Change in Zoning (CIZ) from R-3 Residential to H-M Hotel. A Shoreline Setback Variance (SSV) is required since the proposed replacement seawall and a portion of the drainage system improvements will be within the Shoreline Setback Area. The project site has an area of 4.467 acres and is located in Alaeloa, Maui, Hawaii.

With the retreat of approximately 10 to 30 feet from the existing seawall location, the beach width will be widened accordingly and it is anticipated that the proposed replacement seawall will not have a significant impact on the natural shoreline process. The proposed replacement seawall will also help to prevent eroded underlying soils from entering the ocean and the proposed drainage improvements will prevent sediments and pollutants contained in onsite generated storm waters from contaminating the ocean. As such, the proposed development is not anticipated to result in significant environmental impacts to surrounding properties, nearshore waters, natural resources, and/or archaeological and historic resources on the site or in the immediate area. Public infrastructure and services, including roadways, sewer and water systems, medical facilities, police and fire protection, parks, and schools are adequate to serve the project and are not anticipated to be impacted by the project. The proposed project is not anticipated to negatively impact public view corridors and is not anticipated to produce significant adverse impacts upon the visual character of the site and its immediate environs.

The subject property is situated within the State's Urban District and is County R-3 Residential and Community planned for Single-Family Residential. The proposed CPA and CIZ actions will bring the existing condominium-hotel use into conformity and consistency with State and County land use plans and policies, including Chapter 205A, HRS, as well as the West Maui Community Plan Land Use Map.

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



IX. REFERENCES

- County of Maui, Department of Planning. 2010. *The Countywide Policy Plan, County of Maui 2030 General Plan*. Wailuku, Hawaii.
- County of Maui, Department of Planning. 2010. *Draft Maui Island Plan*. Wailuku, Hawaii.
- County of Maui, Department of Planning. 1996. *West Maui Community Plan*. Wailuku, Hawaii.
- County of Maui, Office of Economic Development. 2009. *Maui County Data Book*. Wailuku, Hawaii.
- Environmental Planning Associates. August 31, 1990. *Maui Coastal Scenic Resources Study*. Lahaina, Hawaii.
- Federal Emergency Management Agency. Revised September 25, 2009. *Flood Insurance Rate Map*. Community Panel Map Number 1500030264E.
- U.S. Department of Agriculture, Soil Conservation Service in Cooperation with the University of Hawaii, Agricultural Experiment Station. 1972. *Soil Survey of the Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii*. Washington, D.C.