ALAN M. ARAKAWA
Mayor

WILLIAM R. SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director

COUNTY OF MAUI

DEPARTMENT OF PLANNING

August 4, 2016

Honorable Alan M. Arakawa
Mayor, County of Maui
200 South High Street
Wailuku, Hawaii 96793

For Transmittal to:

Honorable Robert Carroll, Chair
and Members of the Land Use Commission
200 South High Street
Wailuku, Hawaii 96793

APPROVED FOR TRANSMITTAL
Mayor 8/6/16 Date

Dear Chair Carroll and Members:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING FOR KAHANA SUNSET AOAO (LAHAINA) (LU-19)

As per your request for additional information for the subject Committee item number, dated July 6, 2016, the Department of Planning (Department) is transmitting for your review and action a requested copy of the attached Department Report, entitled:

KAHANA SUNSET AOAO APPLICATION FOR A CHANGE IN ZONING (CIZ) AND COMMUNITY PLAN AMENDMENT (CPA), SITUATED AT 4909 LOWER HONOAPIILANI ROAD, LAHAINA, ISLAND OF MAUI, HAWAII; TMK: (2) 4-3-003:015 (CPA 2012/0003) (CIZ 2012/0007)

Thank you for your attention to this matter. Should you have any questions, feel free to transmit them to the Department of Planning via transmittal through the Office of the Mayor.

Sincerely,

WILLIAM SPENCE
Planning Director

Attachment

xc: Clayton I. Yoshida, Planning Program Administrator (PDF)
James A. Buika, Coastal Resource Planner (PDF)
Maui Planning Commission Members
Kahana Sunset AOAO, Applicant
Raymond Cabebe, Chris Hart & Partners, Inc.

WRS:JAB:nt

Project File
General File

K:\WP_DOCS\PLANNING\SM1\2012\0003_KahanaSunset\CIZ JAN 2015 TO CORP COUNSEL\Transmittal_To_Council_CPA_Zoning_KahanaSunset_08.01.16.doc

BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter Of The Applications Of KAHANA SUNSET AOAO To obtain a Special Management Area Use Permit and Shoreline Setback Variance at the Kahana Sunset AOAO for Shoreline and Site Improvements and a Community Plan Amendment and a Change in Zoning at 4909 Lower Honoapiilani Road, TMK: (2) 4-3-003:015, Lahaina, Maui, Hawaii	DOCKET NO. CPA 2012/0003, CIZ 2012/0007, SM1 2012/0003 SSV 2012/0002 Kahana Sunset AOAO Shoreline and Site Improvements (JAB)

MAUI COUNTY PLANNING DEPARTMENT'S REPORT
TO THE MAUI PLANNING COMMISSION
JULY 22, 2014 MEETING

DEPARTMENT OF PLANNING
COUNTY OF MAUI
2200 MAIN STREET
WAILUKU, MAUI, HI 96793

Community Plan Amendment, Change in Zoning, Special Management Area Use Permit and Shoreline Setback Variance

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BEFORE THE MAUI PLANNING COMMISSION

COUNTY OF MAUI

STATE OF HAWAII

In The Matter Of The Applications Of KAHANA SUNSET AOAO To obtain a Special Management Area Use Permit and Shoreline Setback Variance at the Kahana Sunset AOAO for Shoreline and Site Improvements and a Community Plan Amendment and a Change in Zoning at 4909 Lower Honoapiilani Road, TMK: (2) 4-3-003:015, Lahaina, Maui, Hawaii	DOCKET NO. CPA 2012/0003, CIZ 2012/0007, SM1 2012/0003, SSV 2012/0002 Kahana Sunset AOAO Shoreline and Site Improvements (JAB)

DESCRIPTION OF THE PROJECT

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 **(Exhibits 1 and 2)**.

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 by adding over 3,000 square feet of shoreline area. The newly constructed seawall and stairs will remain in the shoreline setback area, but further mauka.

Marc M. Siah, the coastal engineer for the project, in a letter dated July 29, 2013 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. **(Exhibit 3)**

Relocation of Existing Appurtenant Structures

The existing gazebo on the lawn will be relocated inland and the existing shower will be relocated to the south of the new stairway. **(Exhibit 1)**

Replacement of Existing Aging Storm Drainline

According to the *Preliminary Drainage Report for Kahana Sunset Condominium* (PDR) prepared by Marc M. Siah & Associates, Inc. in April 2012, 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. **(Exhibit 4 (Sec. 2.5, p. 5)**).

The existing 36-inch outfall at the shoreline is located at the north end of the seawall that is proposed for demolition 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 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 (3½ 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 Single-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 1 compares the existing and proposed land use criteria:

Table 1. Comparison of existing land use and proposed land use for Kahana Sunset AOAO.

	R-3 (existing)	H-M (proposed)	1971	Kahana Sunset (existing)
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 SF
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	1 stall/ 2 units	Variance	1.3 stalls / 1 unit

Currently, the existing development standards are granted through a 1968 variance. If the CPA and CIZ requests are granted, the 1968 variance would no longer need to be in effect. The applicant states that requested CPA and CIZ actions are solely for the purpose of land use consistency as required by HRS 205A "Coastal Zone Management". The applicant states that 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 has agreed to 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. 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. The Applicant will work with the Department to construct a Shoreline Access sign along Honoapiilani Road. **(Exhibit 5).**

DESCRIPTION OF THE PROPERTY

Land Use

The subject property is located in Napili, in an area known as Alaeloa, at TMK: (2) 4-3-015:003 The parcel is 4.467 acres, 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. **(Exhibit 6 and 7).**

Land Use Designations

a. State Land Use District -- Urban
b. Maui Island Plan -- Within the Urban Growth Boundary
c. Community Plan -- Single Family
d. County Zoning -- R-3 Residential
e. Other -- Special Management Area
f. Flood Zones: -- VE, AE and X
g. Base Flood Elevation -- 17 feet **(Exhibit 8)**

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 with a Base Flood Elevation, described 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 (**Exhibit 8**, "Flood Insurance Rate Map").

Surrounding Uses

North:	Zoning: R-3 Residential Community Plan: Single Family, Public Quasi-Public State Land Use: Urban **Existing uses**: Single-Family Residence, Church.
South:	Zoning: R-3 Residential Community Plan: Single Family State Land Use: Urban **Existing uses**: Single-Family Residence.
East:	Zoning: A-1 Apartment Community Plan: Multi Family State Land Use: 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.

Photographs of the project site are included as **Exhibit 9.**

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. 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. Weidig Geoanalysts 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.

BRIEF HISTORY OF THE APPLICATION

1. This matter arises from applications for a Special Management Area (SMA) Use Permit and Shoreline Setback Variance (SSV) filed on August 4, 2012 for the following actions, pursuant to Section 12-202-15 of the *Special Management Area Rules of the Maui*

Planning Commission and Sections 12-203-14 and 12-203-15 of the *Shoreline Rules for the Maui Planning Commission*:

a. Demolish existing rock & concrete seawall and concrete stairs;
b. Reconstruct seawall approximately 10 feet landward and stairs approximately 30 feet landward;
c. Replace 36-inch diameter 300-foot long drain line;
d. Relocate gazebo and shower further inland; and,
e. Renovate landscape plantings.

2. Additionally, applications for a Community Plan Amendment (CPA) and Change in Zoning (CIZ) were filed concurrently on August 4, 2012 for the purpose of having the land use designations consistent with the existing use. The existing 79-unit resort condominium was constructed in 1971 in conjunction with a variance. **(Exhibit 10)**

3. Pursuant to the requirement for a SSV and the CPA, the Applicant completed the Chapter 343 HRS Environmental Impact Statement process. On February 26, 2013, the Maui Planning Commission reviewed the Draft Environmental Assessment and provided comments to be addressed in the Final Environmental Assessment. The Draft EA was published in the Office of Environmental Quality Control *Environmental Notice* on February 8, 2013 for public review and comment.

4. Based on comments from the Maui Planning Commission on the Draft Environmental Assessment, the Applicant provided detailed plans for a public shoreline access path. The approximately 250-foot path runs along the south border of the property in an east-west orientation from Lower Honoapiilani Road to the shoreline.

5. On April 22, 2014, the Commission voted to adopt a Finding of No Significant Impact declaration at the Commission's regularly schedule meeting. This FONSI determination was published in the Office of Environmental Quality *Environmental Notice* on May 23, 2014. No legal challenges were filed on the FONSI determination during the 30-day challenge period.

APPLICABLE REGULATIONS

Special Management Area (SMA) Use Permit Application

Standards for reviewing a Special Management Area (SMA) Use Permit application are found under HRS 205A-26 and § 12-202-10, § 12-202-11, and § 12-202-12 of Chapter 202, *Special Management Area Rules for the Maui Planning Commission.*

In evaluating an action the following factors, but not limited to same, may constitute a significant adverse effect on the environment:

A. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;
B. Significantly curtails the range of beneficial uses of the environment;
C. Conflicts with the County's or the State's long-term environmental policies or goals;

D. Substantially affects the economic or social welfare and activities of the community, County or State;

E. Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways;

F. In itself has no significant adverse effect but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

G. Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat;

H. Is contrary to the state plan, county's general plan, appropriate community plans, zoning and subdivision ordinances;

I. Detrimentally affects air or water quality or ambient noise levels;

J. Affects an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh waters or coastal waters;

K. Substantially alters natural land forms and existing public views to and along the shoreline; or

L. Is contrary to the objectives and policies of chapter 205A, HRS.

The following guidelines shall be used by the Authority in reviewing developments within the Special Management Area:

1. All development in the special management area shall be subject to reasonable terms and conditions set forth by the authority to ensure:

   A. Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;

   B. Adequate and properly located public recreation areas and wildlife preserves are reserved;

   C. Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and

   D. Alterations to existing land forms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, storm surge, landslides, erosion, siltation, or failure in the event of earthquake.

2. No development shall be approved unless the Authority has first found that:

   A. The development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interest. Such adverse effects shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the

elimination of planning options;

B. The development is consistent with the objectives, policies, and special management area guidelines of this chapter and any guidelines enacted by the legislature; and

C. That the development is consistent with the county general plan and zoning. Such a finding of consistency does not preclude concurrent processing when a general plan or zoning amendment may also be required.

3. The Authority shall seek to minimize, where reasonable:

A. Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough, or lagoon;

B. Any development which would reduce the size of any beach or other area usable for public recreation;

C. Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management areas and the mean high tide line where there is no beach;

D. Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and

E. Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.

Shoreline Setback Variance

Standards for reviewing a Shoreline Setback Variance (SSV) application are found under HRS 205A-46 and under §12-203-15 of Chapter 203, Shoreline Rules for the Maui Planning Commission.

Criteria for approval of a variance follow.

(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:

(1) Cultivation of crops;

(2) Aquaculture;

(3) Landscaping; provided that, the commission finds that the proposed structure or activity will not adversely affect beach processes and will not artificially fix the shoreline;

(4) Drainage;

(5) Boating, maritime, or water sports recreational facilities;

(6) Facilities or improvements by public agencies or public utilities regulated under HRS chapter 269;

(7) Private facilities or improvements that are clearly in the public interest;

(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;

(9) Private facilities or improvements that may artificially fix the shoreline; provided that, the commission also finds that shoreline erosion is likely to cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area; and provided further that, the commission imposes conditions to prohibit any structure seaward of the existing shoreline unless it is clearly in the public interest; or

(10) Moving of sand from one location seaward of the shoreline to another location seaward of the shoreline; provided that, the commission also finds that the moving of sand will not adversely affect beach processes, will not diminish the size of the public beach, and will be necessary to stabilize an eroding shoreline.

(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;

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

(3) The proposal is the practicable alternative 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.

(d) For purposes of this section, hardship shall not include: economic hardship to the applicant; county zoning changes, planned development permits, cluster 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.

(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;

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

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

(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

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

(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.

Community Plan Amendment

Pursuant to Title 19, Chapter 19.510, General Application Procedures, Section 19.510.010(C), the Planning Director has determined that the application and Department Report meets the requirements of Section 19.510.010(D).

A community plan amendment is reviewed pursuant to Title 2, Administration and Personnel, Chapter 2.80B General Plan and Community Plans; Section 2.80B.110 Non-decennial amendments to community plans proposed by a person, Maui County Code, 1980, as amended. Applications shall follow the procedures set out in sections 19.510.010 and 19.510.020 of Maui County Code, as amended. An environmental assessment or environmental impact statement in accordance with Chapter 343, Hawaii Revised Statutes, shall be submitted along with the application for a community plan amendment.

Change in Zoning

Pursuant to Title 19, Chapter 19.510, General Application Procedures, Section 19.510.010(C), the Planning Director has determined that the application and Department Report meets the requirements of Section 19.510.010(D).

Pursuant to Title 19, Chapter 19.510, Section 19.510.040 Change in Zoning of the Maui County Code, the appropriate planning commission shall hold a public hearing on all applications for zoning changes and make a recommendation to the County Council. The County Council may grant a change in zoning if all the following criteria are met:

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

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

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

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;

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

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 United States Soil and Conservation Service.

Pursuant to Title 19, Chapter 19.510, Section 19.510.050 Conditional Zoning of the Maui County Code, the County Council may impose conditions upon the applicant's use of the property. The conditions shall be imposed if the Council finds them necessary to prevent circumstances which may be adverse to the public health, safety and welfare. The conditions shall be reasonably conceived to mitigate the impacts emanating from the proposed land and shall meet the following criteria:

1. That the public shall be protected from the potentially deleterious effects of the proposed use; and

2. That the need for public services created by the proposed use shall be fulfilled.

PROCEDURAL MATTERS

1. On March 28, 2014, the applicant published a "Notice of Application and location map in the Maui News notifying the public of the applicant's intent to file the application with the County of Maui. A copy of the "Notice of Application" and Affidavit of Publication is on file in the Maui Planning Department.

2. Pursuant to Chapter 343, Hawaii Revised Statutes, relating to Environmental Impact Statements, a Findings of No Significant Impact (FONSI) was issued by the Maui Planning Commission and filed with the Office Of Environmental Quality Control (OEQC). The FONSI was published on May 23, 2014 in the Environmental Notice. The deadline for filing of an appeal was on June 23, 2014. No appeals were filed.

3. On June 6, 2014, forty-five (45) days prior to the hearing, the Maui Planning Department mailed a notice to the applicant and appropriate state and county agencies notifying them of the scheduled public hearing.

4. On June 20, 2014, the applicant mailed a letter of notification and location map to all owners and recorded lessees within 500 ft. of the subject property describing the application(s) and notifying them of the scheduled hearing date, time and place by either certified or registered mail receipt (Return receipt requested for land use amendments). Copies of the letter, location map, list of owners and recorded lessees, certified and registered mail receipts and return receipts (if required) are on file in the Planning Department.

5. On June 20, 2014, the applicant mailed a letter of notification and location map to all owners and recorded lessees adjacent to the subject property describing the application(s) and notifying them of the scheduled hearing date, time and place by either certified or registered mail receipt. Copies of the letter, location map, list of owners and recorded lessees, certified and registered mail receipts are on file in the Planning Department.

6. On June 20, 2014, a notice of hearing on the applications was published in the Maui News, Honolulu Star Advertiser, The Garden Isle, Hawaii Tribune Herald & West Hawaii Today by the Maui Planning Department.

REVIEWING AGENCIES

County Agencies:	Comment	Exhibit Number
Dept. of Planning	Yes	11
Applicant's Response		
Maui Planning Commission	Yes	12
Applicant's Response		
Dept. of Environmental Management	Yes	13
Applicant's Response		
Dept. of Housing & Human Concerns	Yes	14
Applicant's Response		
Dept. of Public Works (2 comment letters)	Yes	15
Applicant's Response		
Dept. of Transportation	Yes	16
Applicant's Response		
Dept. of Water Supply	Yes	17
Applicant 's Response		
Fire & Public Safety	Yes	18
Applicant's Response		
Police Department	Yes	19
Applicant's Response		

State Agencies:	Comment	Exhibit Number
Dept. of Accounting and General Services	Yes	20
Applicant's Response		
DBEDT, Office of State Planning	Yes	21
Applicant's Response		
Dept. of Hawaiian Home Lands	Yes	22
Applicant's Response		
Dept of Health (DOH), Honolulu	Yes	23
Applicant's Response		
DOH, Maui District Health Office	Yes	24
Applicant's Response		
Dept. of Human Services	Yes	25
Applicant's Response		
Department of Land & Natl. Resources (DLNR) - OCCL	Yes	26
Applicant's Response		
DLNR – Aquatics	Yes	27
Applicant's Response		
DLNR – Boating	Yes	28
Applicant's Response		
DLNR – Engineering	Yes	29
Applicant's Response		
DOT Statewide Planning/Airports	Yes	30
Applicant's Response		
Civil Defense	Yes	31
Applicant' s Response		
DLNR- State Historic Preservation Division	Yes	32
Applicants Response		

Federal Agencies:	Comment	Exhibit Number
U.S. Army Corp of Engineers	Yes	33
Applicant's Response		

Others:	Comment	Exhibit Number
Maui Electric Company	Yes	34
Applicant's Response		

Private:	Comment	Exhibit Number
Harry Duckworth etal. (3/7/13)		35
Applicant's Response		
Kent Simon (6/3/13)		36
Applicant's Response		
Patrick Quigley (6/5/13)		37

Applicant's Response		

ANALYSIS

LAND USE

1. The proposed project is in conformance with the goals, objectives and policies of the Hawaii State Plan. It will provide additional opportunities for employment and economic growth.

2. The subject property is within the Urban District. The proposed project is permitted within the Urban District.

3. As stated in the Maui County Charter, as amended in 2002:

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

The County of Maui 2030 General Plan Countywide Policy Plan, adopted by the Maui County Council on March 19, 2010, is the first component of the decennial General Plan update. The Countywide Policy Plan replaces the General Plan as adopted in 1990 and amended in 2002. The Countywide Policy Plan acts as an over-arching values statement and umbrella policy document for the Maui Island Plan and the nine Community Plans that provides broad goals, objectives, policies, and implementing actions that portray the desired direction of the County's future. The plan includes:

1. A vision statement and core values for the County to the year 2030
2. An explanation of the plan-making process
3. A description and background information regarding Maui County today
4. Identification of guiding principles
5. A list of countywide goals, objectives, policies, and implementing actions related to the following core themes:

A. Protect the Natural Environment
B. Preserve Local Cultures and Traditions
C. Improve Education
D. Strengthen Social and Healthcare Services
E. Expand Housing Opportunities for Residents
F. Strengthen the Local Economy
G. Improve Parks and Public Facilities
H. Diversify Transportation Options
I. Improve Physical Infrastructure
J. Promote Sustainable Land Use and Growth Management
K. Strive for Good Governance

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. 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

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.

4. The Maui Island Plan (MIP) was adopted by the County Council on December 28, 2012. The Plan provides direction for future growth, the economy, and social and environmental decisions through the year 2030. The Plan looks comprehensively at many factors that influence the physical, social and economic development of the island. In addition to establishing a directed growth strategy to identify areas appropriate for future urbanization and revitalization, the Plan also identifies and addresses key environmental, housing, and economic development issues relevant to Maui's current and future generations. The Plan is intended by the County Council, Planning Department, and Maui Planning Commission as a policy foundation for day to day decisions and is specifically intended to be used to assist in reviewing discretionary permits.

The subject parcel is in the MIP Urban Growth Boundary (UGB). The proposed project is in keeping with the following MIP goals, objectives, and policies:

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.*

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) 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*. (Exhibit 38)

LAND USE

Urban Areas

Goal:

7.3 *Maui will have livable human scale urban communities, and efficient and sustainable land use pattern, 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.

5. The subject property is located within the West Maui Community Plan area and has a SF Single Family designation. 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).

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 currently 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 nor increase the height or density. 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.

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.

6. The subject property is situated within the County of Maui's R-3 Residential District (**See**:Exhibit 7, "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: 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.

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.

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.

COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING APPLICATION

Pursuant to MCC § 19.510.010 D: all applications for a Community Plan Amendment and a Change In Zoning shall provide the following information.

1. *Documents which identify the owner of the subject parcel of land and the signature or written authorization for the application by the owner; provided, however, that this requirement shall not apply to revisions or amendments proposed by the planning director or the County council;*

   Kahana Sunset AOAO

2. *Owner's name, address and telephone numbers;*

   4909 Lower Honoapiilani Road
   Lahaina, Maui, Hawaii 96761
   Ms. Jacque Scheibel, Co-Chair
   Kahana Sunset AOAO Board Long Range
   Planning Committee
   5575 Foothill Ranch Road
   Santa Rosa, California 95404
   Phone: (808) 669-9952
   Mobile: (707) 292-4691
   Mr. Keith Meyer, Co-Chair
   Kahana Sunset AOAO Board Long Range
   Planning Committee
   7650 NE Meyer Lane

Corvallis, Oregon 97330-9666
Phone: (541) 231-8487

3. *Agent's name, address and telephone numbers, if applicable;*

Chris Hart & Partners, Inc.
115 N. Market Street
Wailuku, Maui, Hawaii 96793
Voice: (808) 242-1955
Facsimile: (808) 242-1956
Mr. Jordan E. Hart, President

4. *Tax map key number of the parcel and its street address, if available;*

Project Address:	4909 Lower Honoapiilani Road Lahaina, Maui, Hawaii 96761
Project TMK:	(2) 4-3-003:015

5. *Locational map identifying the site, adjacent roadways, and identifying landmarks;*

See: Exhibit 6

6. *List of owners and lessees of record located within a five-hundred-foot distance from the parcel. This list shall be derived from the most current list available at the real property tax division of the department of finance at the time of the filing of the application with the planning director. This list shall include the names and addresses of all of the owners and lessees of record located within a five-hundred-foot distance from the parcel, as well as the tax map key numbers of these owners' and lessees' lands identified in accordance with this section. A map, drawn to scale, which clearly identifies the five-hundred-foot boundary surrounding the subject parcel and the parcels within the boundary;*

See: Exhibit 39

7. *Policies and objectives of the general plan, the provisions of the community plan applicable to the application, the provisions of the applicable district and an analysis of the extent to which the application, if granted, conforms to these policies, objectives and provisions;*

See: Exhibit 39

8. *Detailed land use history of the parcel which includes, but which is not limited to, former and existing State and County land use designations, violations and uses;*

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**:Exhibit 6, "State Land Use Boundary Map")
West Maui Community Plan:	SF Single Family (**See**: Exhibit 6, "West Maui Community Plan ")
County Zoning:	R-3 Residential (**See**: Exhibit 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**: Exhibit 8, "Flood Insurance Rate Map")
Special Designations:	Special Management Area (SMA) (**See**: Exhibit 7, "Special Management Area Map")

9. *Preliminary archaeological and historical data and comments from the department of land and natural resources and office of Hawaiian affairs of the State, and if applicable, a preservation/mitigation plan which has been reviewed and approved by the department of land and natural resources and office of Hawaiian affairs of the State;*

   An *Archaeological Monitoring Plan* (AMP) was prepared for the project in March 2012 by Archaeological Services Hawaii, Inc. 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.

10. *Analysis of the secondary impacts of the proposed use on surrounding uses which includes, but which is not limited to, increases in property value, populations, housing, community services and facility needs, secondary jobs and employment generated, and compatibility with surrounding uses, and if applicable, the affordable housing program and comments from the department of human concerns of the County, and other mitigation plans and comments from the respective governmental and community services agencies;*

    The subject property is located in Napili, in an area known as Alaeloa, at TMK: (2) 4-3-015:003. 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:	Zoning: R-3 Residential Community Plan: Single Family, Public Quasi-Public State Land Use: Urban **Existing uses**: Single-Family Residence, Church.
South:	Zoning: R-3 Residential Community Plan: Single Family State Land Use: Urban **Existing uses**: Single-Family Residence.
East:	Zoning: A-1 Apartment Community Plan: Multi Family State Land Use: 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.

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.

11. *Traffic impact analysis and, if applicable, a traffic master plan, which includes, but which is not limited to, comments from the department of transportation of the State and department of public works and environmental management;*

This project does not generate additional traffic.

12. *If applicable, an assessment of the impact which the proposed use may have on agricultural use of the parcel which includes, but which is not limited to, a feasibility analysis of potential agricultural uses suited to the site and written comments from the department of agriculture of the State and the Soil Conservation Service of the government of the United States;*

Not applicable to this project.

13. *Water source, supply and distribution analysis which includes, but which is not limited to, methods of irrigation existing on the parcel and proposed for the application, location and use of groundwater and nonpotable water sources, and, if applicable, a water master plan, which includes, but which is not limited to, comments from the department of land and natural resources of the State and the departments of water supply and public works and environmental management;*

The Maui County 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.

As recommended by DWS, during construction, Best Management Practices (BMP) plan will be implemented in order to protect ground and surface water sources.

14. *Sewage disposal analysis, a description of a proposed method of sewage disposal, and comments, if applicable, from the departments of health and land and natural resources of the State and the departments of public works and environmental management and water supply;*

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 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.

15. *Solid waste disposal analysis, a description of a proposed method of solid waste disposal and comments, if applicable, from the departments of health and land and natural resources of the State and the departments of public works and environmental management and water supply;*

This project does not generate additional solid waste.

16. *Identification of environmentally sensitive areas, habitat and botanical features which include, but which are not limited to, wetlands, streams, rock outcroppings, endangered plants and animals, and exceptional trees, if applicable, a baseline study and preservation/mitigation plan, and comments, if applicable, from the department of land and natural resources of the State, the United States Fish and Wildlife Service, and the United States Corps of Engineers;*

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 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. 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. During

construction, the BMP procedures will be implemented to mitigate any possible impacts to endangered species.

17. *Identification of the topographical and drainage patterns existing on the subject parcel and any proposed alterations to these patterns;*

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.

The entire length of Existing Storm Drainline (ESD) No. 5, a 300-foot long 36-inch corrugated metal pipe, is proposed to be replaced. Onsite inlets will be retrofitted with filters to prevent the entry of pollutants.

18. *Identification of all meetings held between the applicant and any community or residential group which may be impacted by the applicant's request, the issues raised by these meetings, and any measures proposed by the applicant to deal with or to mitigate these issues;*

Kahana Sunset hosted a Community Informational Meeting onsite on July 16, 2013. The meeting was hosted by three (3) Kahana Sunset AOAO 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.

19. *Photographs of the subject site or structure which are dated;*

See: Exhibit 9 "Site Photographs".

20. *Development schedule;*

The project will be phased over three years.

21. *Schematic site development plans, if applicable, drawn to scale, which identify the following:*

a. *Property lines and easements with their dimensions and area calculations,*

b. *Location, size, spacing, setbacks and dimensions of all existing and proposed buildings, structures, improvements and uses,*

c. *Existing and proposed building elevations, sections, floor plans and site sections which clearly define the character of the development,*

d. *Topographic information showing existing features and conditions and proposed grading,*

e. *Existing and proposed landscaping which depicts open spaces, plantings and trees,*

f. *Existing and proposed roadways and accesses to the project and parking layout with dimensions, and*

g. *Shoreline, shoreline setback lines, stream and other setback lines;*

See: Exhibit 1 "Concept Master Plan", & Exhibit 2 "Preliminary Structural Engineering Report".

22. *Operations and management of the proposed use which includes, but is not limited to, number of employees, proposed employee housing plan, hours of operation, fees charged to residents and visitors, provisions for off-site parking;*

Not applicable to this project.

23. *Identification of traditional beach and mountain access trails and additional trails which may be required for public access to the beaches and mountains, and if applicable, preservation/mitigation plan, and comments from the department of land and natural resources and the office of Hawaiian affairs;*

Kahana Sunset has proposed to provide an approximately 250-foot long access path to the beach along its southern boundary. 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 path will have a concrete surface leading to concrete stairs to the beach.

24. *Identification and assessment of chemicals and fertilizers used, including, but not limited to, detailing effects upon surface, underground and marine water resources and neighboring properties and surrounding flora and fauna, and if applicable, a mitigation plan and maintenance program and schedule, and comments from the departments of health and of land and natural resources of the State, the United States Fish and Wildlife Service, and the United States Environmental Protection Agency; and*

Not applicable to this project.

25. *Any other information to assess the application.*

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. **Exhibit 40**

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 concrete reinforced masonry facing in some areas.

The **Average Erosion Hazard Rate (AEHR)** along the shoreline fronting Kahana Sunset ranges between 0.8 feet and 1.2 feet per year. 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 future, one or both of these buildings could be lost to natural processes (erosion, sea level rise, severe storm event, etc.). **Exhibit 41**

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 AOAO 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.

MAUI PLANNING COMMISSION 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 be requested through 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 provided herein.

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. **Exhibit 42**

§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 on the ocean side 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
	+222.18
	917.70
	917.70 / 3 = 305.90 feet
Setback:	305.90 x .25 = **76.48 feet**

Using the Annual Erosion Hazard Rate (AEHR) method, the shoreline setback is calculated as follows **(Exhibit 41)**

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

The Department concludes that the shoreline is considered "fixed" (by legal artificial structures or natural features) at all transects. Thus, 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. 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.

STATE CERTIFIED SHORELINE

At this time, there is no State Certified Shoreline for this project. 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. The Department shall require submitted evidence from the applicant of the certified shoreline prior to or in conjunction with the final compliance report for this project. A shoreline map is included as Exhibit 42.

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 modest strategic retreat designed to ensure the protection of habitable structures of Kahana Sunset for an extended period of time.

MARINE RESOURCES

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, 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.

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 The coral reef is the predominant marine biota in the vicinity; however endangered species such as humpback whale, monk seal, green sea 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. **(Exhibit 40)**

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 lessen 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. Furthermore, the applicant shall be responsible for any shoreline and/or ocean area restoration and associated permitting which may become necessary as a result of structures from the applicant's property which may enter the shoreline setback area and/or ocean as a result of failure or any other cause.

Monk seals, green sea 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 construction 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 **(Exhibit 33)**.

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 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. 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". The ocean is currently partially visible from Lower Honoapiilani Road fronting the subject property.

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.

AGRICULTURE

According to the State Department of Agriculture's Agricultural Lands of Importance to the State of Hawaii (ALISH) classification system, the subject parcel is unclassified, with no agricultural uses. The proposed project area is currently not under agricultural activity, nor are any agricultural uses intended with this project.

ARCHAEOLOGICAL/HISTORICAL/CULTURAL RESOURCES

1. **Archaeological 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 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. **(Exhibit 43)**

An Archaeological Monitoring Plan (AMP) was prepared for the project in March 2012 by Archaeological Services Hawaii, Inc. 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. **(Exhibit 38)**

Potential Impacts and Mitigation Measures. The AMP 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. **(Exhibit 38)**

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

2. **Cultural Resources**

Existing Conditions. A Cultural Impact Analysis (CIA) was prepared by Ms. Jill Engledow (March 2012) for the project site. 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. **(Exhibit 43)**

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 **(Exhibit 5)**

INFRASTRUCTURE AND PUBLIC FACILITIES AND SERVICES

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 **(Exhibit 44)**

1. Water

The Maui County Department of Water Supply (DWS) provides public water service for the West Maui region. 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. **Sewers**

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 Preliminary Engineering Report (*PER)* (M. Siah, 2012) describes the property's sewer system thusly: **(Exhibit 44)**

> *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 **(Exhibit 4).** 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 AOAO, 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 **(Exhibit 4)**

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 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

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.

SOCIO-ECONOMIC IMPACTS

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.

ENVIRONMENTAL IMPACTS

1. **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 **(Exhibit 8)**

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 and no habitable structures are downstream from the proposed action. 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.

2. **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.

3. **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.

4. **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.

SPECIAL MANAGEMENT AREA SIGNIFICANCE CRITERIA

The subject project is located within the Special Management Area (SMA). As such, the proposed improvements require an SMA Use Permit. Pursuant to the *SMA Rules of the Maui Planning Commission*, projects located within the SMA are evaluated with respect to significance of potential environmental and ecological effects. This section addresses the project's relationship to applicable significance criteria, as set forth in the SMA Rules of the Planning Commission, § 12-202-12 (e).

(1) The sum of those effects that adversely affect the quality of the environment and the ecology, and shall evaluate the overall and cumulative adverse effects of the proposed action and

(2) Every phase of the proposed action, its expected primary and secondary consequences, and its cumulative and short or long-term effects. A proposed action may have a significant adverse effect on the environment when the proposed action:

A. Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;

The project does not involve an irrevocable commitment to loss or destruction of any natural resource. Nor are there 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 to natural or cultural resources.

B. Significantly curtails the range of beneficial uses of the environment;

The reconstructed 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, prevention of soils entering coastal waters, and creation of public shoreline access. Private benefits include greater site safety and the prevention of loss of property and structures.

C. Conflicts with the county's or the state's long-term environmental policies or goals;

The actions do not conflict with the long term environmental policies or goals of the State or County.

D. Substantially affects the economic or social welfare and activities of the community, county, or state;

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.

E. Involves substantial secondary impacts, such as population changes and increased effects on public facilities, streets, drainage, sewage, and water systems, and pedestrian walkways;

The proposed project will not affect population and will not have increased effects on public facilities. The project will improve drainage conditions in the area and will create public access to the shoreline.

F. In itself has no significant adverse effects but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

The proposed project does not involve a commitment for larger actions and will not have any cumulative adverse effects.

G. Substantially affects a rare, threatened, or endangered species of animal or plant, or its habitat;

The project site has not been identified as a habitat for rare, threatened, or endangered species of flora or fauna.

H. Is contrary to the state plan, county's general plan, appropriate community plans, zoning and subdivision ordinances;

The existing condominium-resort use of the property is consistent with the State's urban land use designation. The proposed project is within an area that has an existing condominium-resort use with adequate supporting infrastructure and services. The construction work subject to the SMA Use Permit and Shoreline Setback Variance do not affect the existing legal use of the property under County zoning and the West Maui Community Plan. The construction work does not include any development that would be specific to a use only allowed under a changed community plan designation.

I. Detrimentally affects air or water quality or ambient noise levels;

A Best Management Practices (BMP) plan will be implemented to avoid any effects on air or water quality. Ambient noise levels during construction will be mitigated by limiting construction to daylight hours.

J. Affects an environmentally sensitive area, such as flood plain, shoreline, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh waters, or coastal waters;

The proposed project involves actions within the shoreline and erosion-prone areas, however appropriate measures will be taken to mitigate effects to the project site.

K. Substantially alters natural land forms and existing public views to and along the shoreline; or

Alteration to natural land forms will be minimal and will not alter existing public views to and along the shoreline.

L. Is contrary to the objectives and policies of chapter 205A, HRS.

See the next section.

COASTAL ZONE MANAGEMENT OBJECTIVES AND POLICIES

In this section is the project's relationship to applicable coastal zone management considerations, as set forth in Chapter 205A.

1. ***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.

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.

2. ***Historical/Cultural Resources***

Objective: Protect, preserve and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
Policies:
(a) Identify and analyze significant archeological resources;
(b) Maximize information retention through preservation of remains and artifacts or salvage operations; and
(c) Support state goals for protection, restoration, interpretation, and display of historic structures.

Analysis. An *Archaeological Monitoring Plan* (ASH, 2012) 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) 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.

3. ***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. Numerous scenic resources have been identified in the Napili area, which are identified and discussed in the Maui Coastal Scenic Resources Study, August 1990. 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 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".

4. ***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.

5. ***Economic Uses***

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

Policies:
(a) Concentrate coastal dependent development in appropriate areas;
(b) Ensure that coastal dependent development such as harbors and ports, and coastal related development such as visitor facilities and energy generating facilities, are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area;
(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 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.

6. ***Coastal Hazards***

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

Policies:
(a) Develop and communicate adequate information about storm wave, tsunami, flood, erosion, subsidence, and point and 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 seaward of makai 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.

7. ***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.

8. ***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 medications 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 the Draft EA for the project. (See: Reviewing Agencies Section, above)

In conjunction with the submittal of the Special Management Area application, a notice of application was 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. During the EA review process, a number of governmental agencies were consulted. 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 have been notified of the scheduled public hearing dates. Public hearing dates and location maps were 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 provided an opportunity for public comment.

9. ***Beach Protection***

Objective: Protect beaches for public use and recreation.
Policies:

(a) Locate new structures inland from the shoreline setback to conserve open space 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, 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 76.4 feet from the assumed shoreline. This portion of the proposed project is not anticipated to have a direct physical impact upon any public beaches.

10. ***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.

STATE AND COUNTY SHORELINE RULES: ANALYSIS FOR SHORELINE SETBACK VARIANCE

The subject development involves an action within the Shoreline Setback Area, according to the *Shoreline Rules for the Maui Planning Commission*. As such, it is subject to the requirements of a Shoreline Setback Variance, which is required for all proposed structures, facilities, construction or any such activities which are normally prohibited within the shoreline setback area.

Findings of the project's relationship to the required significance criteria for a Shoreline Setback Variance follow:

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 of coralline beach sand, "overlying shreds of pelagic coral reef which in turn overlie basaltic lava flow ..." A portion of the proposed replacement seawall is just landward of the assumed shoreline, then retreats approximately 30 feet *mauka*. All of the 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 concrete reinforced masonry structure to the north. The adjacent shoreline armoring structures in turn adjoin 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.

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

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. 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, the project as proposed 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). 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. **Exhibit 40**

Along the bay, the sandy beach has its greatest width fronting the Kahana Sunset property 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 concrete reinforced masonry facing in some areas.

Shoreline Survey -- At this time, there is no State Certified Shoreline for this project. 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. The Department shall require submitted evidence from the

applicant of the certified shoreline prior to or in conjunction with the final compliance report for this project.

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) **Exhibit 40**

Flood conditions -- The site of the proposed retaining wall is located in Flood Zone AE, with a Base Flood Elevation of 17 feet above mean sea level (AMSL). 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. **(Exhibit 8)**

Geography -- 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) 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 the 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.

ENVIRONMENTAL IMPACT STATEMENT

Since the subject project involves an action within the Shoreline Setback Area, an Environmental Assessment (EA) is required by Chapter 343, Hawaii Revised Statutes. 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.

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 Draft EA 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 As required, notices of application for Special Management Area Use Permit, Shoreline Setback Variance, Community Plan Amendment, and Change in Zoning were mailed out upon acceptance of the Final EA.

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 AOAO 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 and available upon request.

The Final Environmental Assessment and FONSI (Finding of No Significant Impact) determination for the Kahana Sunset Shoreline & Site Improvements was published on May 23, 2014 by the State Office of Environmental Quality Control (OEQC) in its Environmental Notice bulletin.

OTHER GOVERNMENT APPROVALS

The project requires the following 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.

TESTIMONY

As of July 1, 2014, the Planning Department and/or the consultant have received six (6) written testimonies; five opposing the CPA & CIZ portions of the project and one requesting additional information. A packet of all the written testimonies, including email testimonies will be distributed to the Maui Planning Commission on the day of the public hearing, for review. Three letters are included herein as Exhibits 35-37.

A letter (3/7/2013) signed by 33 private citizens was received with comments on the Draft EA and a response was prepared and sent to the 12 who provided addresses. Two emails were received after notification of the July 16, 2013 Neighborhood Informational meeting at Kahana Sunset. One (6/3/2013) opposed the hotel zoning and the other (6/5/2013) requested additional information regarding the proposed improvements to the Kahana Sunset property. Responses were prepared and sent to the concerned parties.

ALTERNATIVES FOR SMA PERMIT AND SHORELINE SETBACK VARIANCE

1. Deferral. The Commission may defer action to another meeting date in order to obtain additional information that will assist in their deliberation on the request.

2. Approve With No Conditions. The Commission may take action to approve the permit request without imposing any conditions.

3. Approve With Conditions. The Commission may take action to approve the permit request with conditions.

4. Denial. The Commission may take action to deny the permit requests.

ALTERNATIVES FOR COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING

1. Deferral. The Commission may defer action to another meeting date in order to obtain additional information that will assist in their deliberations on the applications.

2. Approve with No Conditions. The Commission can take action to recommend approval of the applications without imposing any conditions. The Commission's recommendations would then be transmitted to the County Council for final action.

3. Approve with Conditions. The Commission can take action to recommend approval of the applications with conditions. The Commission 's recommendations will then be transmitted to the County Council for final action. As this is a County-initiated action, conditions may be difficult to codify into a draft ordinance and enforce, as the County will be imposing conditions on itself.

4. Denial. The Commission can take action to recommend denial of the applications. The Commission's recommendations will then be transmitted to the County Council for final action.

APPROVED:

WILLIAM SPENCE
Planning Director

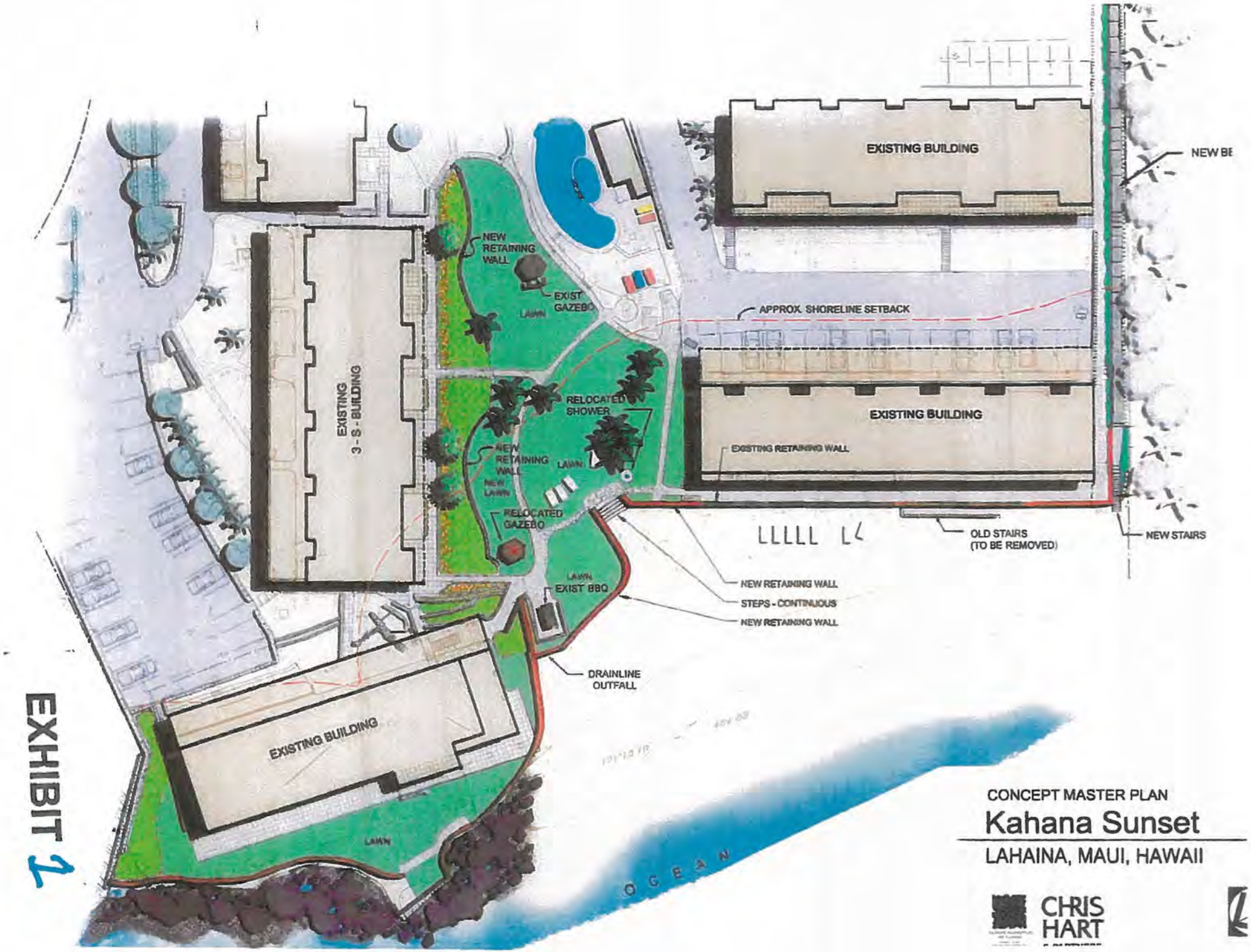

EXHIBIT 1

CONCEPT MASTER PLAN

Kahana Sunset

LAHAINA, MAUI, HAWAII

CHRIS HART

AAA STRUCTURAL ENGINEERING
INSPECTION & EVALUATION SERVICES
ENGINEERING SERVICES YOU CAN TRUST!

PRELIMINARY STRUCTURAL ENGINEERING REPORT FOR IMPLEMENTATION OF PROPOSED SHORELINE PROTECTION MASTER PLAN AT KAHALA SUNSET CONDOMINIUM KAHANA, MAUI

Prepared for

Kahana Sunset AOAO

4909 L. Honoapiilani Hwy., Lahaina, HI 96761

May 2012

EXHIBIT 2

AAA STRUCTURAL ENGINEERING INSPECTION & EVALUATION SERVICES
999 Wilder Avenue • Suite 804 • Honolulu, HI 96822 • Phone: (808) 744-8817 • Email: inquiries@aaastructuralengineering.com

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PRELIMINARY STRUCTURAL ENGINEERING REPORT
FOR
KAHANA SUNSET CONDOMINIUM

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SECTION ONE

PROJECT DESCRIPTION

SECTION ONE

PROJECT DESCRIPTION

1.1 Description of Existing Conditions

The Kahana Sunset Condominium is a shorefront multi-unit resort complex located at Keonenui Bay between Alaeloa Point and Haukoe Point along west coast of Maui. The geographic location of the Kahana Sunset property is shown on Figure 1-1. As a shorefront property, the project site is exposed to north swells and trade wind waves resulting in chronic beach erosion. The combined adverse impacts of the environmental factors include occasional damage to shoreline protective structures and their foundations. In the past decade, severe structural damages to the existing seawalls fronting the property have resulted in two emergency conditions threatening the safety of the two shorefront buildings A and F. In 2003, the severely undermined seawall fronting building A was repaired under the emergency permit SM3 20003/0001. Six years later, in 2009, the sudden collapse of the walkway behind the seawall fronting building F, which revealed an approximately 5-foot deep cavity behind the main seawall from the south end of the wall at the property line to the serpentine seawall makai of the main seawall along the length of building F, presented life safety concerns for the occupants of building F calling for immediate evacuation of all units in the building which lasted several months. The emergency repairs to secure the affected undermined seawall were completed under the emergency permit SM3 2009/0005. In 2010, Kahana sunset removed the undermined serpentine seawall which protected the main seawall in front of building F. In 2011, severe erosion led to undermining of the seawall fronting the BBQ pavilion and shower area extending to the beach access stairs. Currently, this area of the seawall is structurally unstable and constitutes a safety hazard. The combined effect of removing the old serpentine wall and the failure of the seawall fronting the BBQ pavilion has created an unprotected shorefront zone between two buildings A and F.

1.2 Proposed Plan

To address the failure of the retaining wall fronting the BBQ pavilion and shower area as well the loss of protection previously provided by the old serpentine wall at the unprotected shorefront zone in accordance with the development plan for shore protection, the Kahana Sunset AOAO is currently in the process of applying for a shoreline setback variance. Also, pursuant to the County of Maui Department of Public Works request, the Kahana Sunset AOAO is preparing a shoreline protection Master Plan and an Environmental Assessment for the proposed shoreline modifications. The implementation of the proposed shoreline

protection Master Plan requires removal of the failed seawall fronting the BBQ pavilion and existing stairs as well as the remnants of the old serpentine wall. As shown on Drawing Sheets S-1 and S-2, the Master Plan proposes to enlarge the beach area by constructing the replacement seawall further back from the current position of the failed wall and extending the existing seawall fronting building F in lieu of reconstruction of the old serpentine wall. Also, the new beach access stairs will be constructed further back from the location of existing beach access stairs.

1.3 Nature of Preliminary Structural Engineering Report

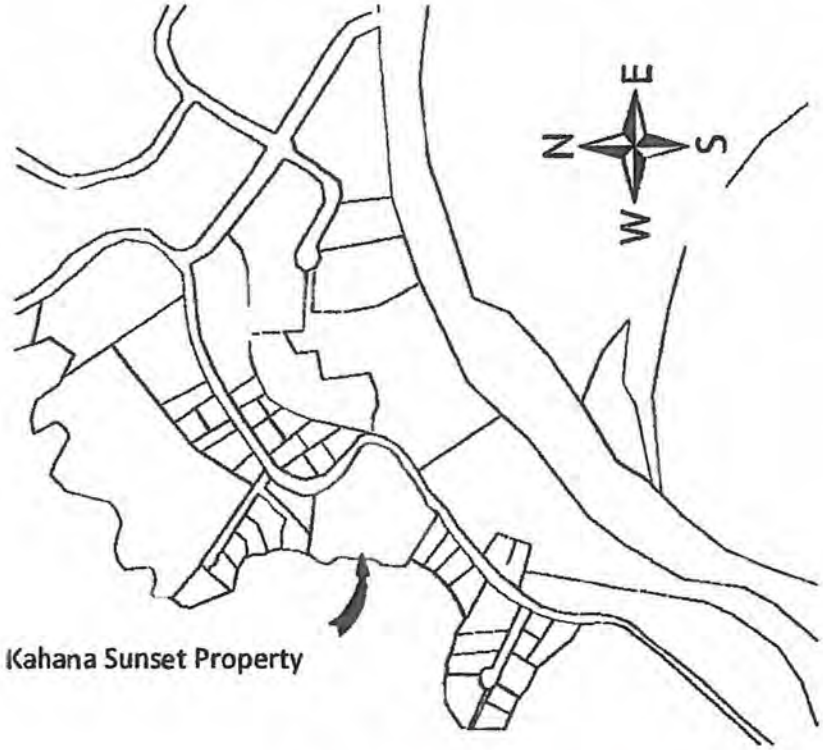
In February 2012, Kahana Sunset AOAO contracted AAA Structural Engineering Inspection & Evaluation Services to prepare a preliminary structural engineering report for implementation of the referenced shoreline protection Master Plan. This report is submitted for the said purpose and will be included as an integral part of the Master Plan.

The report presents structural design drawings for the proposed shoreline modifications at Kahana sunset property. These drawings are the result of engineering assessment of the existing conditions, development of a conceptual structural system for the proposed shoreline modifications, and structural design of the conceptual structural system. The report concludes with a construction cost opinion based on the proposed structural system shown on the conceptual drawings included herein.

Figure 1.1 Project Site Location & Vicinity Maps

Kahana Sunset Property

Project Site Vicinity Map



Project Site Location Map

SECTION TWO

STRUCTRAL DRAWINGS

SECTION TWO

STRUCTURAL DRAWINGS

2.1 List of Structural Drawings

In this section the following structural drawings for the implementation of the proposed shoreline protection Master Plan are included:

1. Title Sheet
2. Existing Condition and Limits of Restoration
3. General Layout Plan
4. General Notes and Details
5. Wall and Stairs Details

INA SUNSET AOAO
EAWALL RESTORATION

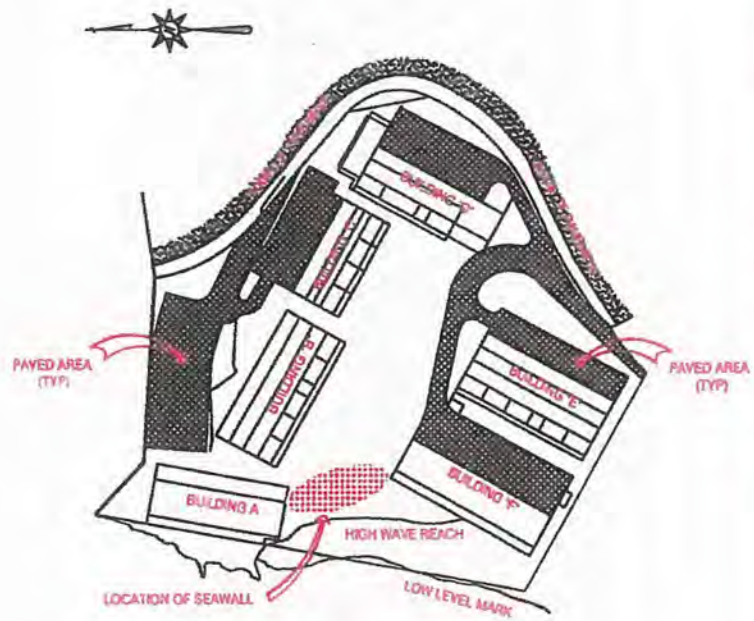
19 L. HONOAPIILANI RD.

LAHAINA, MAUI 96761

TMK: 2-4-3-00-30-15:0000 THRU 0079

PREPARED BY

A STRUCTURAL ENGINEERING
INSPECTION & EVALUATION SERVICES
999 WILDER AVENUE, SUITE 804
HONOLULU, HAWAII 96822
PHONE: 808-398-6749
NQUIRIES@AAASTRUCTURALENGINEERING.COM



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Signature:

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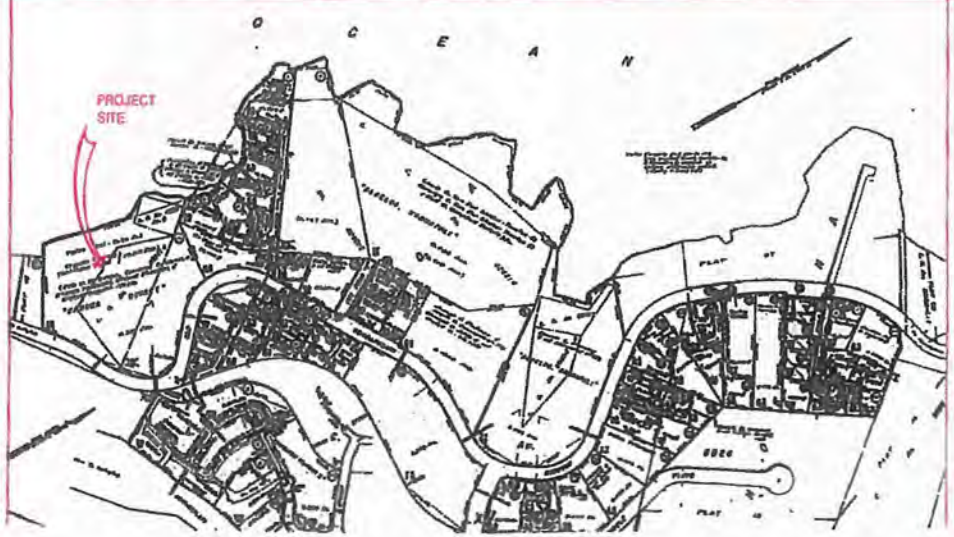
LOCATION MAP (NOT TO SCALE)



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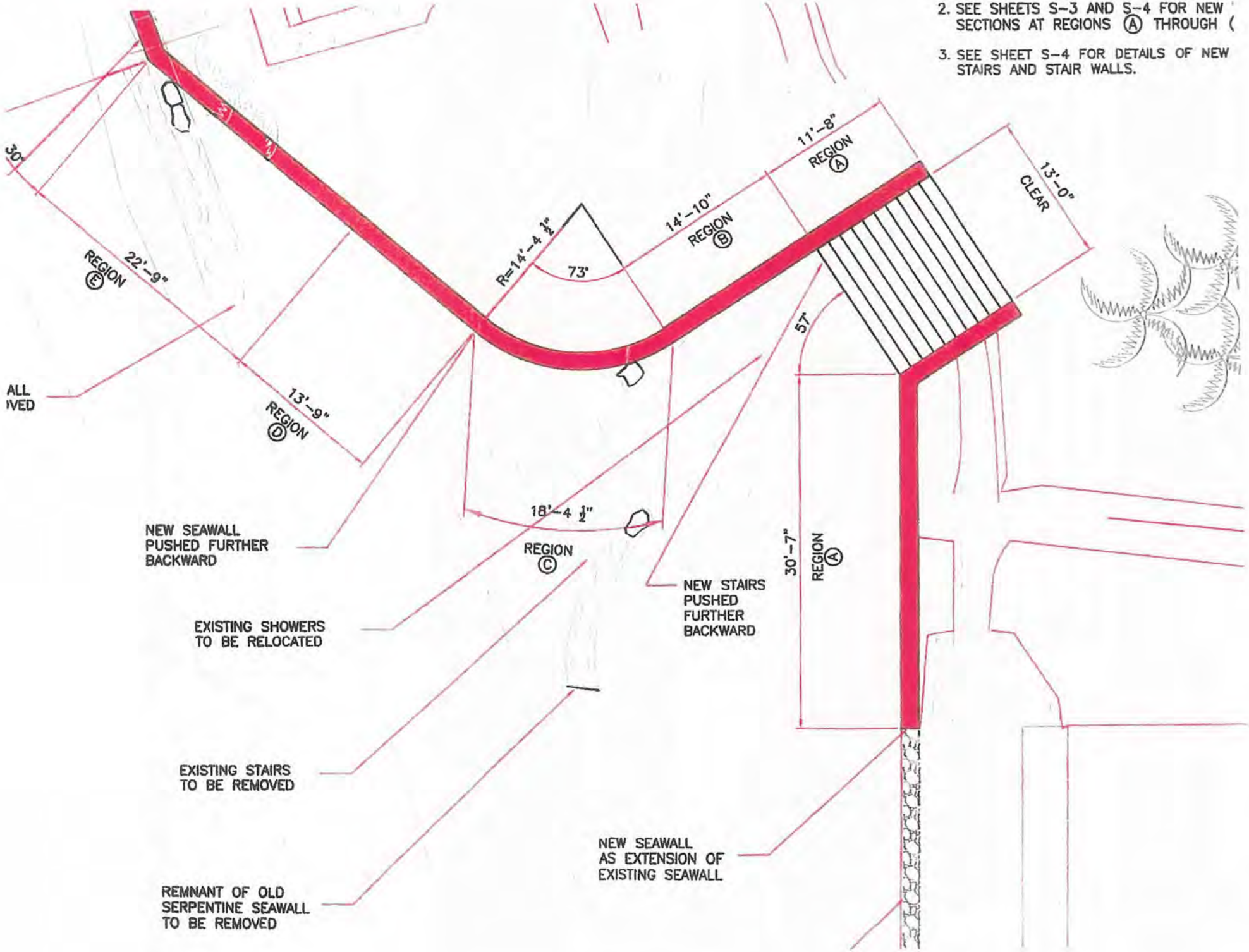
3. SEE SHEET S-4 FOR DETAILS OF NEW STAIRS AND STAIR WALLS.



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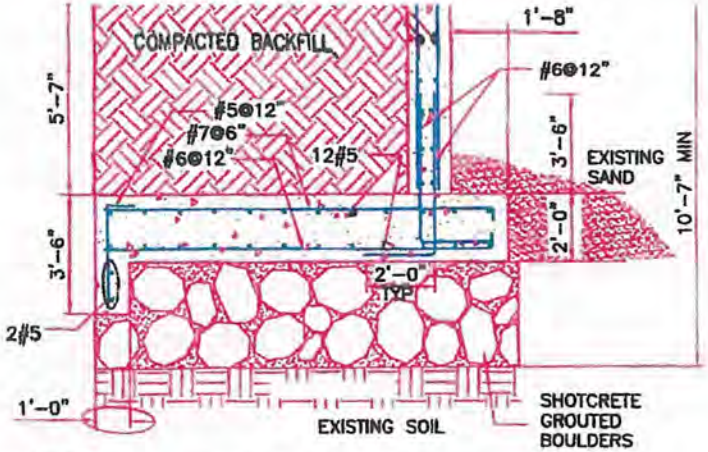

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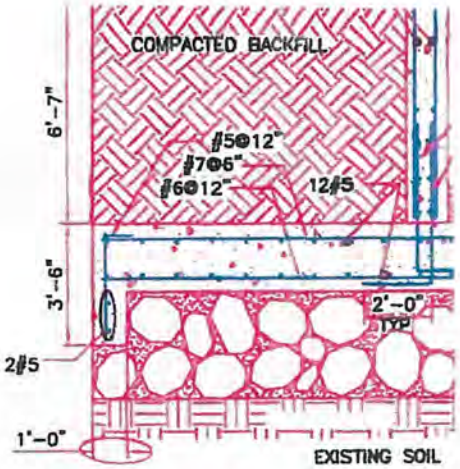

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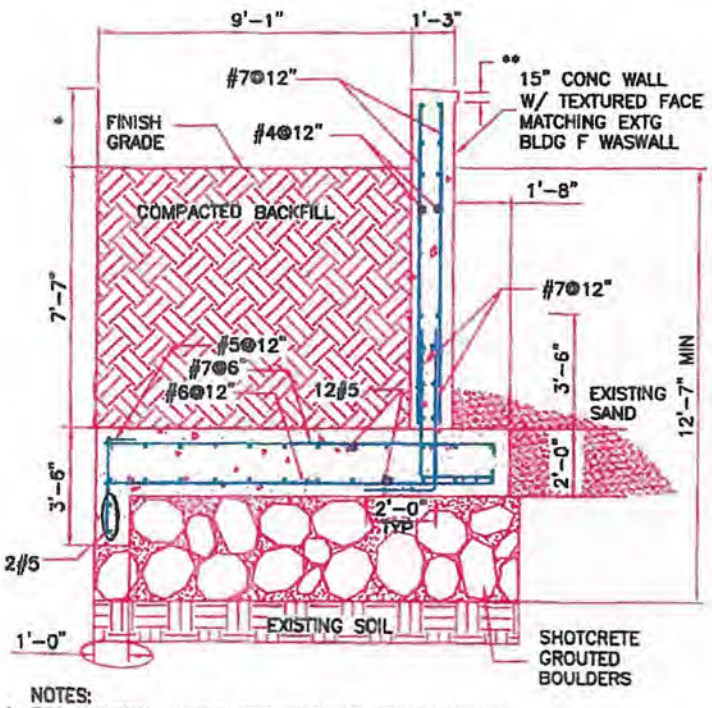

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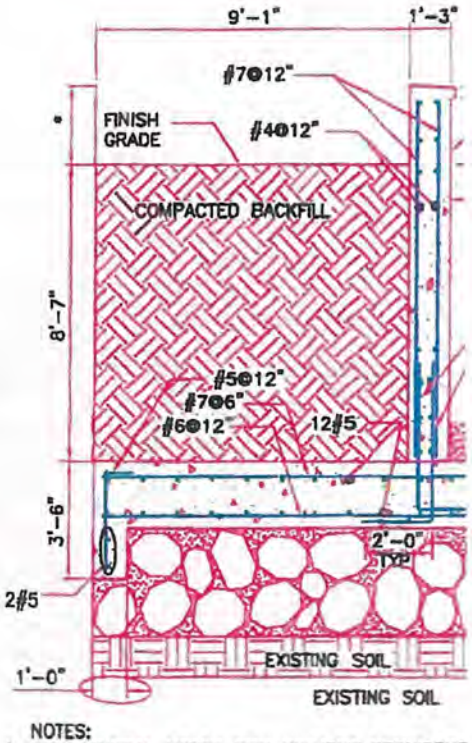

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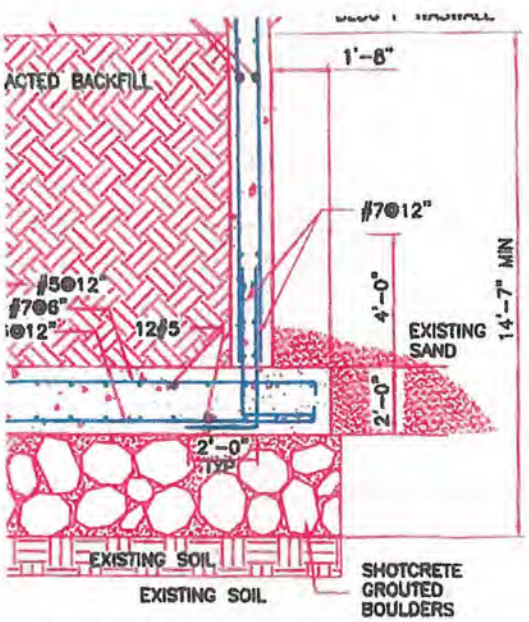

OTES FOR PROJECT REQUIREMENTS.
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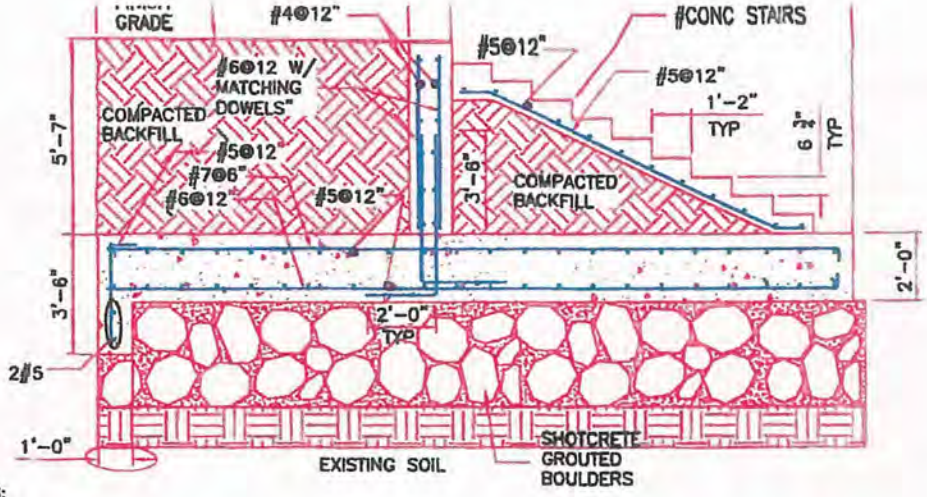

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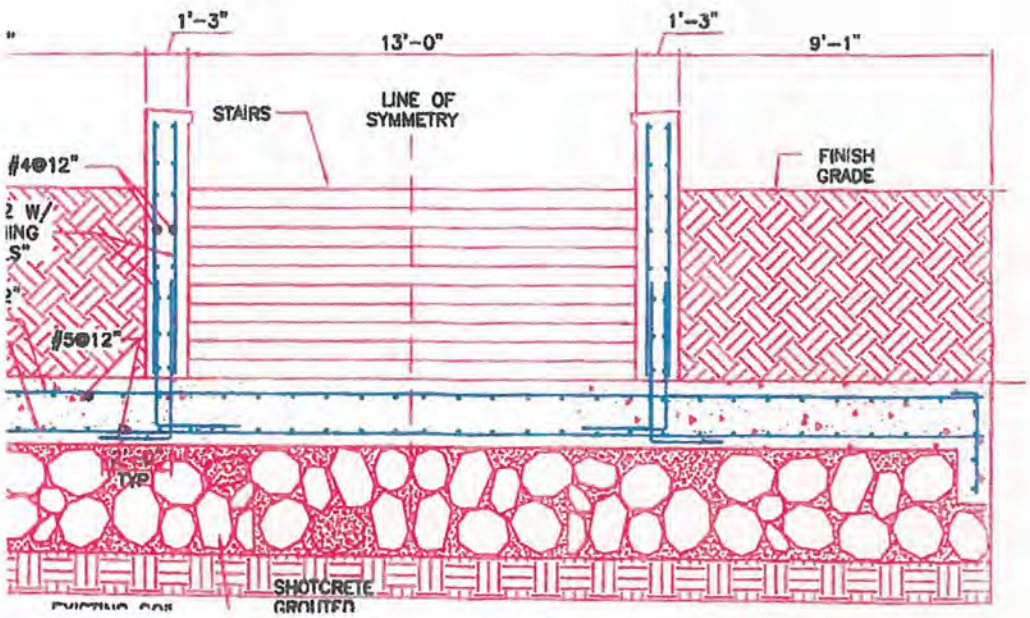
SOME FIELD ADJUSTMENTS TO THE ABOVE DETAIL SHALL BE EXPECTED TO REALIZE THE ABOVE CONCEPT. NO CHA ORDER SHALL BE ACCEPTED FOR THE FIELD CHANGE.

SEE SHEET S-3 FOR APPLICABLE INFORMATION NOT REPEATED HERE..

A
S-4

WALL AND STAIRS DETAIL

SCALE: 3/16" = 1'-0"



SECTION THREE

CONSTRUCTION COST OPINION

SECTION THREE

CONSTRUCTION COST OPINION

3.1 Construction Cost Opinion

Based on the structural drawings for the proposed shoreline modification project as presented in Section Two of this report, the cost of the proposed structural modifications is estimated to be Six Hundred Thousand Dollars ($600,000.00).

3.2 Limitations of Construction Cost Opinion

The referenced estimated cost is limited to the cost items associated with the work indicated on the structural drawings included in this report. These items include all labor, material, and execution costs related to demolition, excavation, concrete work, backfill and compaction by the contractor for installation of approximately 150 linear feet of wall and a set of stairs. Additional cost items related to the site improvement, drainage, landscaping, and other ancillary work required to complete the project shall be included in the overall project budget. Furthermore, the above estimated construction cost does not include cost of engineering design, special inspection, or required permitting fees.

Whereas reasonable attempts were made to estimate the probable construction cost for the project, it should be noted that we cannot and do not guarantee or warranty that the above estimated cost opinion will match the actual construction cost as submitted by bidding contractors.

3.3 Contingency Construction Budget

Considering the preliminary nature of the project, for budgeting purposes it is recommended that an additional contingency construction budget of approximately 15% to 20% be allocated for the project.

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INSPECTION & EVALUATION SERVICES
ENGINEERING SERVICES YOU CAN TRUST!

Report Title: Preliminary Structural Engineering Report for Implementation of Proposed Shoreline Protection Master Plan at Kahala Sunset Condominium, Kahana, Maui

Date: May 2012

This report was prepared by me or
under my supervision.
My license expires on April 30, 2014.

KIUMARS SIAT
PROFESSIONAL
ENGINEER
No. 9446-S
May 28, 2012
HAWAII, U.S.A.

AAA STRUCTURAL ENGINEERING INSPECTION & EVALUATION SERVICES
999 Wilder Avenue • Suite 804 • Honolulu, HI 96822 • Phone: (808) 744-8817 • Email: inquiries@aaastructuralengineering.com

APPENDIX C

Marc M. Siah & Associates July 29, 2013 Letter
RE: Stormwater Origins & Volume and Seawall Configuration

EXHIBIT 3

Consulting Engineers

Marc M. Siah & Associates, Inc.

Engineering & Science of the Environment

July 29, 2013

Chris Hart and Partners, Inc.

115 N. Market Street

Wailuku, Maui, Hawaii 96793

Attention: Mr. Raymond Cabebe, LEAD, AP BD+C

RE: Kahana Sunset Shoreline and Site Improvements

Dear Mr. Cabebe:

In response to your e-mail of July 16, 2013, we are offering the following responses to the questions from Maui Department of Planning.

Item No. 2: The origin and amounts of storm water entering the bay through the existing outfall:

Historically the Keonenui Bay, has been the natural terminus for all overland storm flows. Subsequent to development of Kahana Sunset and upland areas of the watershed into residential subdivisions, drainage infrastructures were devised to handle and manage the overland storm flow into the bay. 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

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820 S. Beretania Street • Suite 201 • Honolulu, HI • Phone: (808) 538-7180 • Fax: (808) 528-4352 • Email: msiah@mmsengineering.com

overland surface flow generated on portions of the roadway right-of-way along the eastern boundary of the development. As detailed in the Preliminary Drainage Report for Kahana Sunset, the total on-site storm runoff generated on the Kahana Sunset development is calculated at 11.53 cfs.

The storm water infrastructure in Napili Villas is designed to include two detention/retention basins which serve as the backbone to the system with the capacity to contain and hold storm runoff volumes generated on the entire development during a 10-year storm event. During severe storm events, overflow form theses retention/detention basins are diverted via a spillway and a 24-inch storm drain/culvert which traverses the Lower Honoapiilani Road and conveys the flow into a drywell/intake structure on the Kahana Sunset property which ultimately flows into the bay via the 36-inch outfall. The total contribution of storm runoff released from the Napili Villas and the upland areas mauka of The Honoapiilani Highway and the Napilihau Road is quantified in the Napili Villas Preliminary Engineering Report to be 44 cfs.

The overland runoff generated on a portion of the Lower Honoapiilani Road right-of-way between baseline Road Stations 143+00 and 155+00 along the eastern border of the Kahana Sunset development and flows into the Kahana Sunset drainage system is estimated at 9.12 cfs.

In summary, the total storm flow into the Keonenui Bay via the existing 36-inch outfall is the sum of the above mentioned flows which is estimated at 64.65 cfs, eighty two percent of

which is attributed to off-site generated storm flows and only 18 percent of which is the flow generated on the grounds of Kahana Sunset development.

Item No. 3: Analysis of alternative design configuration for the Seawall at Kahana Sunset

Before analyzing different configurations for the seawall and the corresponding effects on erosion and beach stability, it is important to summarily present the findings of a wave climate study prepared for Kahana Sunset Development in 2011. The findings were used as the basis for design configuration for the new wall and beach access stairs. In order to address the chronic beach erosion at Kahana Sunset condominium located on northwest Maui, the AOAO initiated a wave climate study to evaluate wave transformation process for swells and wind generated waves, as they approach the area and impinge upon the coastline. 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 over wash of existing sea wall foundations and other coastal fortifications along the coastline.

The study utilizes 10-years of hind cast data presented in the Wave Energy Resources along the Hawaiian Island Chain by Stopa et al. (2011b) and a finite-difference Boussineq computer model to simulate swell and wind wave transformation as they enter the embayment and approach Kahana Sunset coastline. The region is primarily subject to the north swells and northeast wind waves and experience little effect from the south swells. The large oblique incident angles as well as the shallow near shore reef system, greatly reduce the height of the wind waves as they approach the Kahana Sunset. The study,

therefore, simulates transformation of two different wave climates, namely, a peak swell event and a moderate swell event, respectively, for assessment of their impacts on Kahana Sunset beach. The peak swell event has a significant wave height of 12 feet and represents a major swell which may occur once in ten years or so. The moderate swell represents a 6-feet wave with smaller period which occurs frequently in early and late season and may produce hazardous conditions at the site.

Simulation results for a peak swell event indicate that transformed wave heights in the embayment range between 1.5 to 3 feet despite having a much larger value over the reef. Although the wave setup is less than 0.18 feet, the surge 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.

The oblique wave incidence at the shore creates a clockwise mean flow in the embayment. The net long shore current along the beach fronting the Kahana Sunset reaches 1.98 ft/s. This net long shore current is the culprit and the main mechanism for erosion of the beach during peak swell event. Since the southern part of the embayment is steep, the sand eroded from the beach is transported and deposited in the reef channels in the embayment.

The simulation results for the waves from a moderate swell event with smaller wave height and shorter periods, confirm that these waves, in contrast to peak swell, follow the channels in the reef system and are refracted to a greater extent closer to the coast and

approach the shore almost normally. The moderate event creates a maximum wave set up of 0.12 ft along the shore, and causes inundation up to of 42 feet inland. While such events might not present a beach erosion hazard, the surge reaching the seawall, however, may cause erosion and undermining of the footings of the structures over time. The moderate swell generates a maximum net current of 1.56 ft/s along the shore, but the flow pattern is not well defined and unlikely to cause a net transport of sand in the offshore direction.

A very general analysis of concave vs. convex shoreline configuration on distribution of wave energy, wave setup, and development of long shore currents assuming a gentle shallow water and beach bathymetry, can be summarized as follows. Assuming parallel contour lines and gentle sloping of near shore, a concave coastal configuration, allows divergence of wave orthogonals upon shoaling, diffraction and refraction processes, as waves approach the coastline, causing an even distribution of wave energy across the length of the shoreline. This in turn leads to less differential setup and minimal long-shore currents along the beach with no to minor erosion potential. Such configuration allows development of the most stable and natural beaches and coastlines as evidenced in actual settings in embayments and shorelines. In contrast, a convex configuration will cause the wave orthogonals, as they approach the shoreline, to converge towards the apex of the convex shoreline and diverge on the flanking sides of the apex (as evidenced in natural settings around headlands). The divergence of the orthogonals leads to development of differential setup between the apex and the flanking sides causing long shore currents along the beach which results in littoral drift and beach erosion.

Based on the findings of the wave climate study and the general shoreline configuration analysis, the new modifications for the seawall and beach access stairs were designed to be located well beyond the inundation distances identified in the study and in a generally speaking concave configuration, albeit, with stretches of straight wall and/or stair segments to allow easier construction.

I hope that the above explanation addresses the question raised by Maui Department of Planning. Should you have any questions or need additional clarification please call me at 538-7180.

Sincerely,
Marc M. Siah & Associates, Inc.

Marc M. Siah, Ph.D., P.E., BCEE
President

~~APPENDIX K~~

Preliminary Drainage Report

EXHIBIT 4

PRELIMINARY DRAINAGE REPORT FOR KAHANA SUNSET CONDOMINIUM KAHANA, MAUI

Prepared For:

Apartment Owners Association of Kahana Sunset Condominium Complex Kahana, Maui

Prepared By:

Marc M. Siah & Associates, Inc.

April 2012

Marc M. Siah & Associates, Inc.

Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813

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Marc M. Siah & Associates, Inc.

Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813

PRELIMINARY DRAINAGE REPORT FOR KAHANA SUNSET CONDOMINIUM

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SECTION 1.0

INTRODUCTION

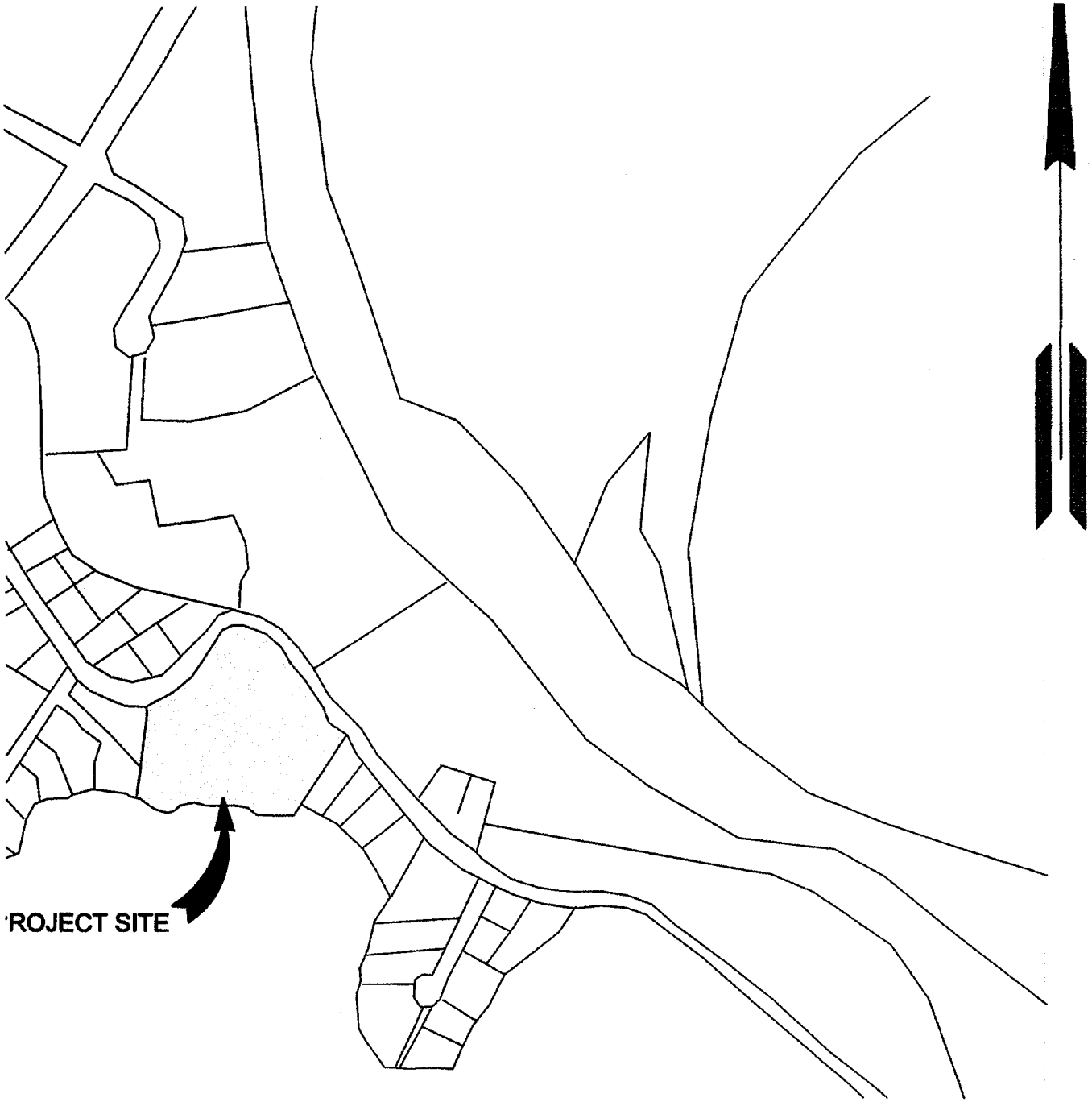
SECTION 1.0

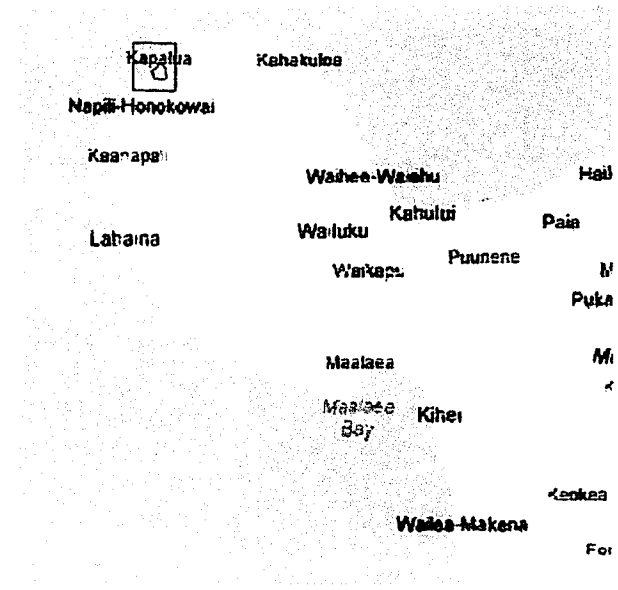
INTRODUCTION

1.1 Project Background and Description

The Kahana Sunset Condominium Complex is a multi-unit residential development in west Maui. The project site is located on a land parcel along the shorelines of Keonenui Bay which stretches between Alaeloa Point and Haukoe Point along west Maui coast. A vicinity map indicating the general location of the condominium property is shown in Figure 1-1. The complex is exposed to north swells and trade wind waves which undergo significant transformation as they approach the land and enter the bay. This exposure causes chronic beach erosion and accretion with occasional and at times severe structural damage to foundations and footings of existing protective coastal fortifications requiring reconstruction and repair under emergency conditions. At two recent occasions, specific emergency repairs were necessitated for seawalls fronting Buildings F and Building A, which were performed under emergency permits SM3 2009/0005 and SM3 2003/0001, respectively.

At the present time and in order to address the failure of the retaining wall fronting the BBQ pavilion/shower and to construct additional modifications to the protective seawalls in accordance with the development plan for shore protection, the Kahana Sunset AOAO is in the process of preparing a Master Plan and applying for a Shoreline Setback Variance (SSV) and Special Management Area (SMA) Use Permit. The SSV is necessary to allow additional construction work on the failing seawall and other planned modifications and additions to protective seawalls and coastal structures within the Shoreline Setback Area. In compliance with the State environmental review process, the Kahana Sunset AOAO is also preparing an Environmental Assessment for these modifications and renovations. In line with, and concurrent with these efforts, Marc M. Siah and Associates, Inc. is commissioned by the Kahana Sunset Condominium AOAO, to prepare a preliminary engineering report and drainage report for the Kahana Sunset Condominium Complex.





LOCATION MAP

The multi-unit condominium complex sits on a 4.467 acre land parcel and consists of five residential buildings encompassing 79 units of one and two-bedroom apartments, plus a Separate 4-bedroom apartment for the complex's resident manager, and a detached building housing three offices and a laundry room. The condominium complex was constructed in early 1970s which has undergone renovations and additions in later years. Aerial extent of the development is depicted in Figure 1-2.

1.2 Scope of Report

This drainage report describes the existing drainage infrastructure in the Kahana Sunset Condominium Complex and presents hydrological analyses and storm runoff calculations for the exiting conditions in contrast to the future conditions as planned in accordance with the project master plan. The analyses and calculations are performed in accordance with the Title MC-15 of County of Maui, Department of Public Works and Waste Management, Chapter 4, "Rules for the Design of Strom Drainage Facilities in the County of Maui."

The report further identifies inadequacies in the drainage infrastructure and provides recommendations for improvements and upgrading to the existing system.

Figure 1-2 Aerial Vicinity Map

SECTION 2.0

PROJECT CHARACTERISTICS

Marc M. Siah & Associates, Inc.

Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813

SECTION 2.0

PROJECT CHARACTERISTICS

2.1 Description of the Project and Location

Kahana Sunset Condominium Complex is located on a 4.467-acre land parcel at 4909 Lower Honoapiilani Road along the western coast of the island of Maui. The land parcel is identified by Tax Map Key (TMK): 2-4-3-03:015 comprised of all of R. P. 4697, L.C. AW. 4807:03 to NIKA 2, all of R. P. 4697, L. C. AW. 4807:04 to NIKA 2, and Portion of R. P. AW. 5524 to L. KONIA. The Tax Map for the condominium complex is depicted in Figure 2-1.

The land parcel is designated as R-3 Residential, according to the Maui County Zoning. It consists of a mix of five separate two and three-story wood framed structures encompassing 79 units of two and one-bedroom apartments, plus a manager's residence and offices and a detached laundry building. The complex was originally constructed in early 1970s and has undergone several phases of alterations and/or renovations since then. There are a total of 16 one-bedroom units and 63 two-bedroom units in five detached structures referred to as Building "A" to "F" in addition to a 4-bedroom unit used as the property manager's residence and office in Building "G" plus two offices and a laundry room in a separate detached building next to Building "G". The units are mostly individually owned and used as residences or for vacation rental.

All structures excluding the Resident Manager's and the offices have three floors. Buildings A and E have eleven two-bedroom units. The units have 1106 SF of living area and 308 SF of lanai. Buildings B and E have five one-bed room units and eleven two-bed-room units. One bed-room units are all identical and have 700 SF of living area and 84 SF of Lanai. The two-bedroom units have 1050 SF of living area and 392 SF of lanai. Building D and E each has eleven one-bedroom units with 700 SF of living area and 84 SF of lanai. Building G is a four-bedroom unit used as the complex's Manager's residence. An additional detached building houses four offices and a laundry room and is located adjacent to building G.

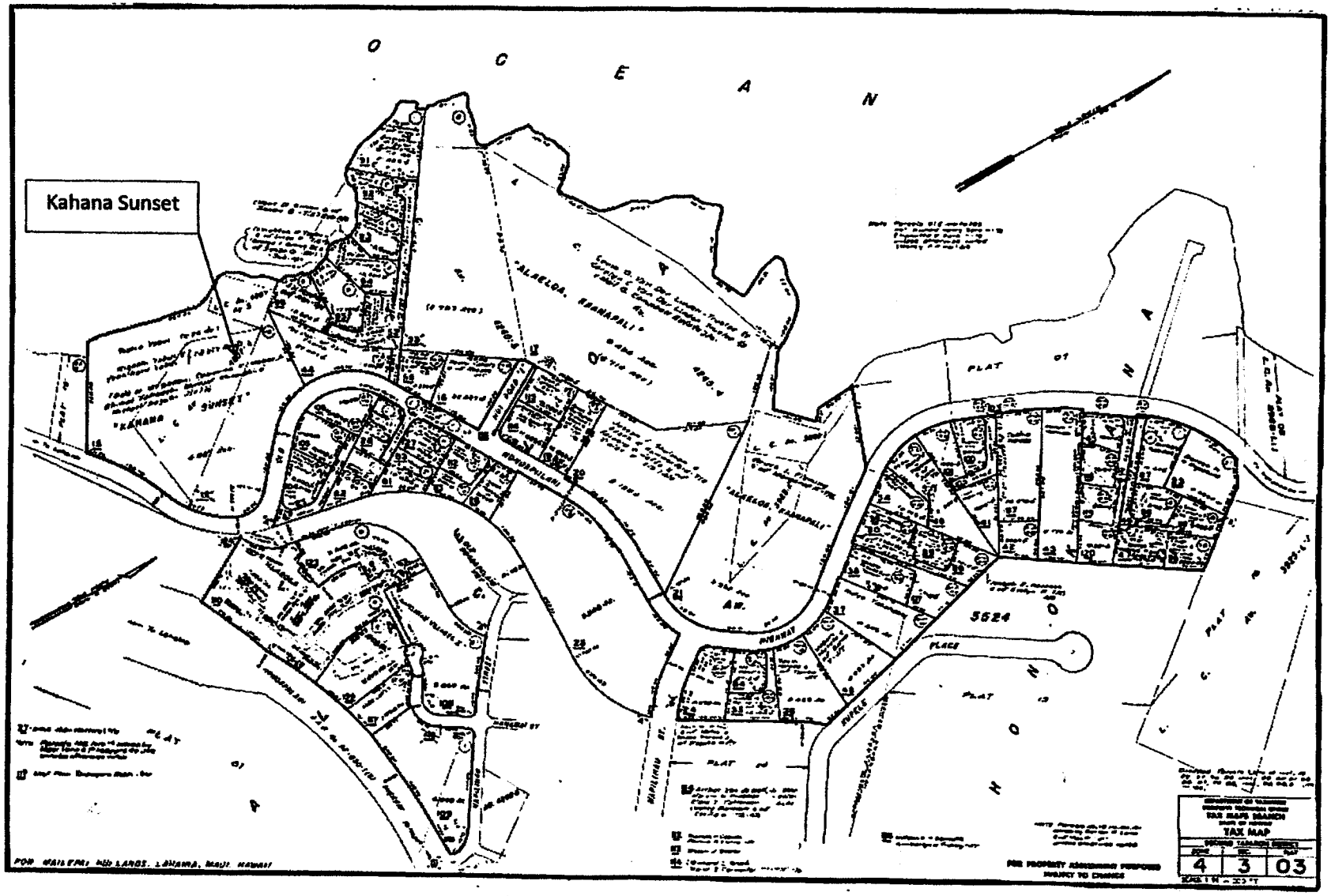


Figure 2-1 Property Tax Map

The grounds are well kept and landscaped with lawn, ornamental flowers and palm trees which include a pool, a shower and barbeque pavilion. A site plan showing various facilities of the development is depicted in Figure 2-2.

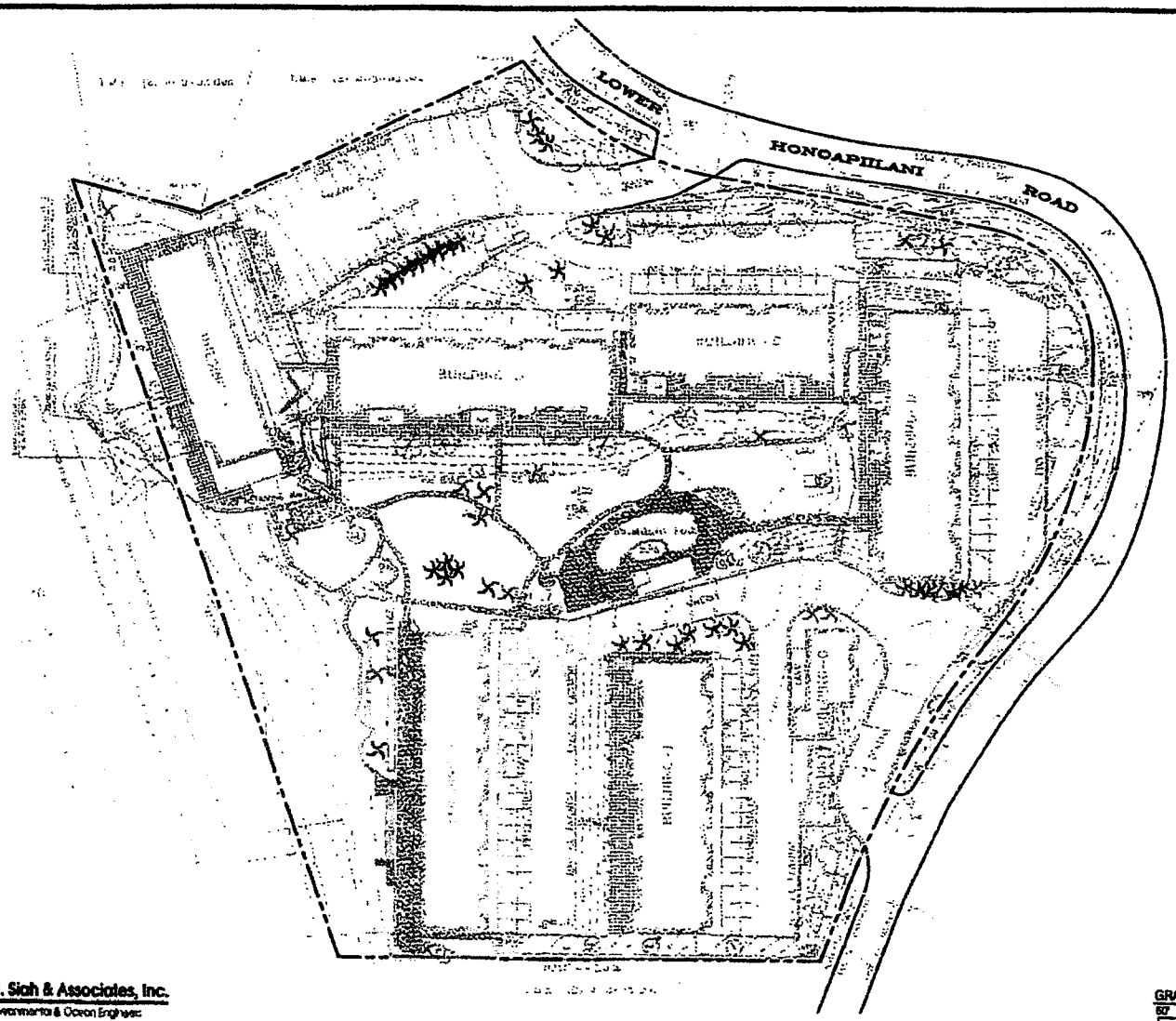
2.2 Land Use

The site of the development is designated as "R-3 Residential District" by Maui County. In West Maui Community Plan, the site is designated as "Single Family" and has a State Land Use "Urban" designation. The Kahana Sunset AOAO obtained a zoning variance in 1968 for multi-family apartment use.

2.3 Topographic and Geotechnical Features

The existing topography at the project site is defined by graded apartment pads and paved parking areas, developed over a gently sloping land which descends south westerly towards the beach along the Keonenui Bay. The meandering Lower Honoapiilani Road defines the northern and eastern boundary of the property and the elevations along this road bordering the property ranges from 49.9 above Mean Sea Level (MSL) at the northern section of the upper entrance to 47.23 at the southern entrance. The site has a southwesterly slope of about 9 percent.

According to the U.S. Natural Conservation Services (NRCS), the soils in the project area belong to Waiakoa-Keahua- Molokai Association which defines them as *moderately deep, deep, nearly level to moderately steep, well drained soils that have moderately fine textured subsoil.* The soils have a surface layer of dark reddish brown, friable silty clay loam. Substratum is soft, weathered igneous rock. Specifically the site is comprised of three types of soils, namely, beach sand (BS), Kahana Silty Clay (KbC), and rough broken and stony land (rRS).



LEGEND:

1. WM = WATER METER
2. WV = WATER VALVE
3. ICV = IRRIGATION CONTROL VALVE
4. SMH = SEWER MANHOLE
5. SDMH = STORM DRAIN MANHOLE
6. LP = LIGHT POST
7. FH = FIRE HYDRANT
8. TFMR = TRANSFORMER
9. PP = POWER POLE
10. MH = MANHOLE
11. DRN =DRAIN
12. IB IRRIGATION BOX
13. UB = UTILITY BOX
14. GW = GUY WIRE

TREE

PALM

PLUMERIA

SIDEWALK

CRM WALL

CONCRETE PAVEMENT

COCONUT

GRAPHIC SCALES:
60 0 60 120
SCALE: 1" = 60'-0"

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FIG. 2-2 SITE PLAN
SCALE: 1"=60'

A series of nine geotechnical borings were collected by Weideg in 2006, prior to repair of walls fronting A and F buildings. The logs relating to borings no. 1 to no. 6, were taken at locations in front of Building F, both makai and mauka of the new wall, indicate presence of "tan to bluff, moist, loose, and very fine to medium, poorly graded, coralline, slightly silty fill" In contrast, borings no.7 to no. 9, taken makai side of building A, indicate "clayey silt, grey-brown, moist, medium stiff with scattered fine to medium, sub-angular, weathered basaltic gravel" to a depth of 5 feet below the ground. This material is underlain by grey- brown and highly fractured basalt to the bottom of the boring.

2.4 Flora

The open space and grounds encompass two entrance driveways, and six parking lots. The rest of the area is grassed and landscaped with ornamental plants and shrubs and palm trees. There is no endangered species of plants on the property.

2.5 Existing Drainage Infrastructure

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.

Historically, the location of the property has dictated it to be the natural terminus of all upland surface runoff before entering the bay. This flow has included runoff generated on the road Right-of-Way as well as adjacent properties along the mauka side of the Lower Honoapiilani Road, including the Napili Villas development. The storm drain infrastructure in Napili Villas was originally constructed to include two retention/detention basins as the back bone of the system with the capacity to contain and hold storm runoff volumes generated on the entire development during 10-year design storms. During severe storms and emergencies, however, a

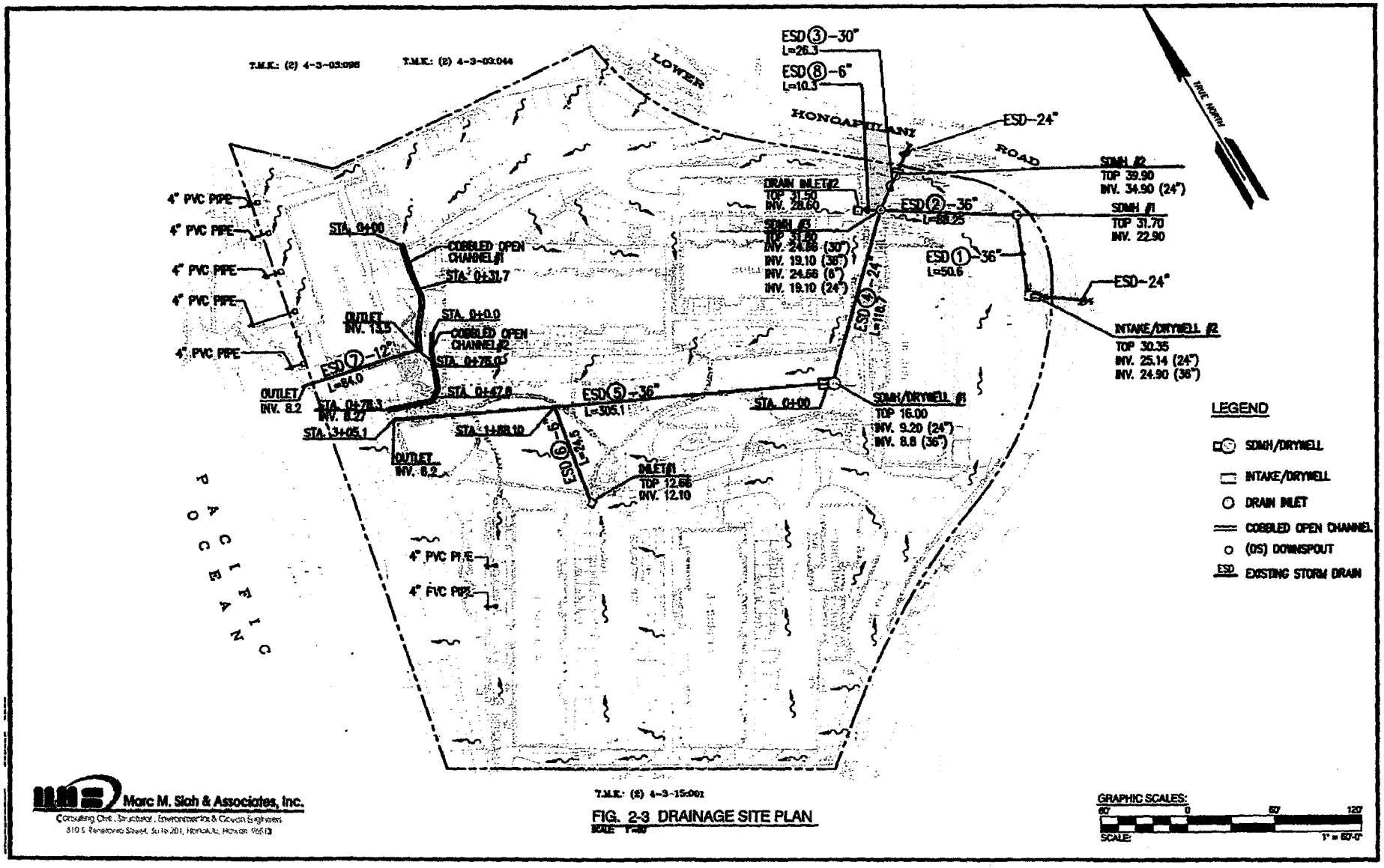
spillway system was also devised and constructed to allow occasional overflow from these two retention/detention basins to flow via a 24-inch storm drain/culvert traversing the Lower Honoapiilani Road, into a dry-well/intake structure located on Kahana Sunset property, on its way towards its terminus at the beach, adjacent to the barbeque pavilion in Kahana Sunset. In short, after completion of the Napili Villas development, the unobstructed and direct overland flow from upland areas entering the Kahana Sunset, was limited to only the surface flow generated on the lower Honoapiilani Road Right-of-Way. A drainage report prepared as part of the Maui County Department of Public Works project, "Lower Honoapiilani Road Improvements, Phase 4", estimates this overland flow within the road Right-of-Way, between Baseline Road Stations, BL Rd. Sta. 143+00 and 155+00, at 9.12 cfs, which enters into the existing Kahana Sunset drainage system at two discharge points. These point connections include existing storm drain inlets in the roadway right-of-way and a 24-inch drain pipe which directs the flow to an existing Kahana Sunset storm drain manhole located between Building C and D. The inlets are in a state of disrepair and are not adequately maintained to efficiently handle storm runoff from the road right-of-way. Stray and unmitigated roadway storm runoff sheet flows overland and enters Kahana Sunset, which at times, has caused localized erosion and property damage. According to the County of Maui Department of Public Works, the existing roadway storm drainage infrastructure, are to be upgraded in near future as part of the Lower Honoapiilani Road Improvements, Phase 4, Project.

In addition to accommodating storm flow pass through from Honoapiilani Road Right-of-Way, The Kahana Sunset Storm Drain System, also receives unknown quantities of emergency storm water overflows from the Napili Villas. Although the exact amount of emergency flow has not been quantified, however, the capacity of the 24-inch culvert, draining into the Kahana Sunset Drainage System, has been estimated at 44 cfs.

In other words, the Kahana Sunset Storm Drain infrastructure not only accommodates on-site generated storm flows, but it also receives off-site flows from county right-of-way estimated at

9.12 cfs as well as a maximum of 44 cfs emergency storm runoff overflow from Napili Villas development.

On-site storm water collection and conveyance system in Kahana Sunset, consists of various means of flows diversion, collection and conveyance, ranging from swales to open channels, drain pipes, inlets, manholes, and a 36-inch outfall. In general, storm runoff generated in open planted areas with bare soil mostly infiltrate into the ground. Over flows from these areas, join the overland sheet flow in the central open and grassed yard, the flows from roofs' down spouts, at times channelized or sheet flow on the paved roadways and parking, are all directed towards various inlets and intake structures constructed within the property, before they ultimately discharge into the bay via the 36-inch outfall. Surface flow patterns and various inlets and other drainage facilities and details at project site, are depicted in Figure 2-3 and Figure 2-4. In summary and as indicated the infrastructure includes, eight drain lines of various sizes ranging from 6-inch to 36-inch, four storm drain manholes, one intake/dry well, two 24-inch wide rectangular cobbled open channels, several swales collecting and diverting roof runoffs to various inlets, more than 12 drain inlets and a series of 4-inch drain pipes which mostly drain the lawn/lanai areas makai of Buildings A and F.



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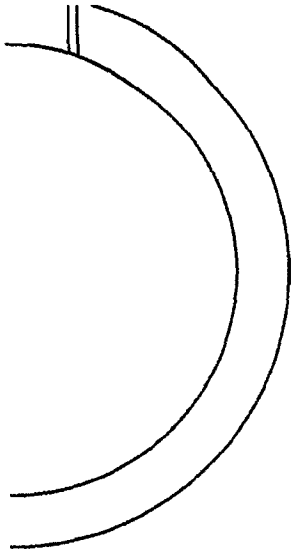
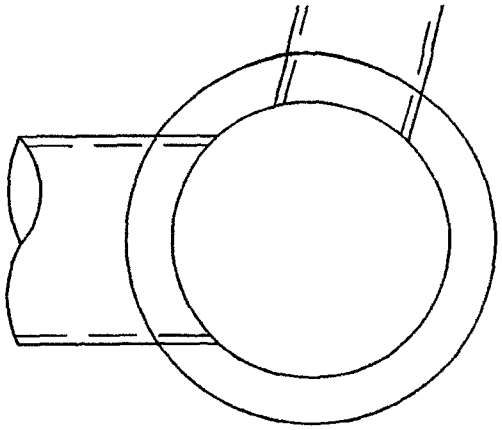
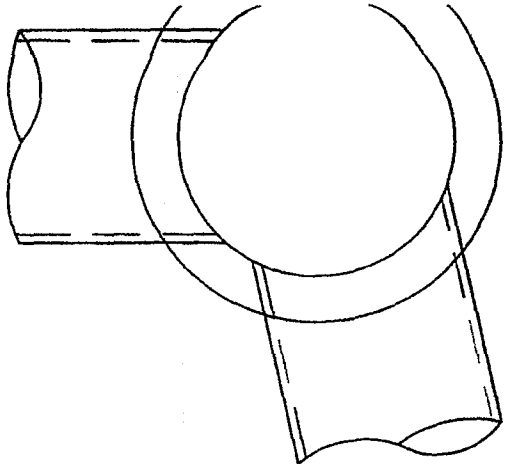
T.M.K.: (2) 4-3-15:001

FIG. 2-3 DRAINAGE SITE PLAN
SCALE: 1"=60'

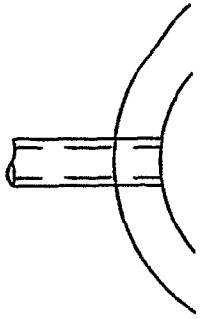




PLAN-SDMH/DRYWELL #2
SCALE: 3/8"=1'-0"

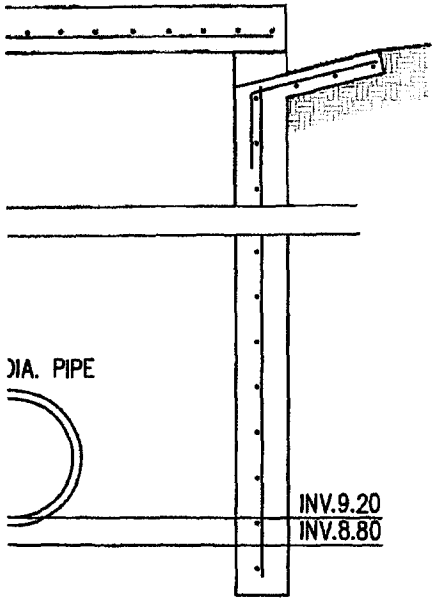


PLAN-SDMH #1
SCALE: 3/8"=1'-0"

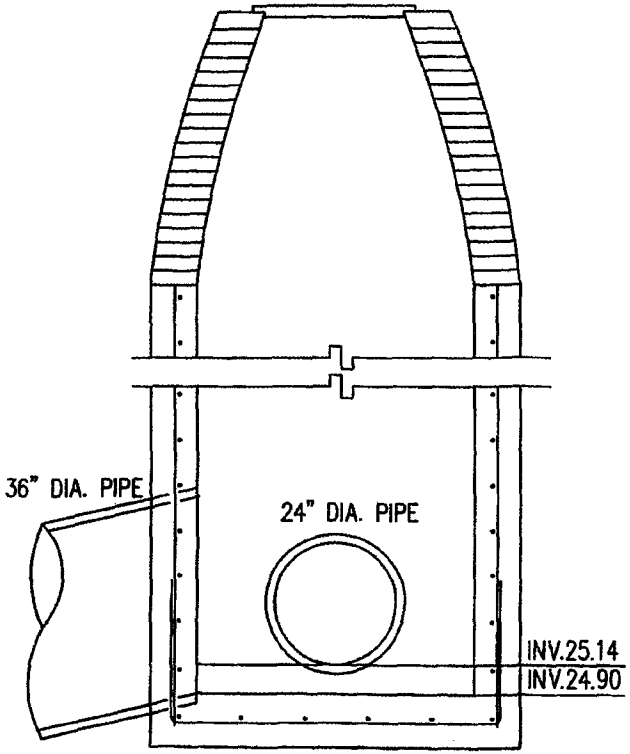


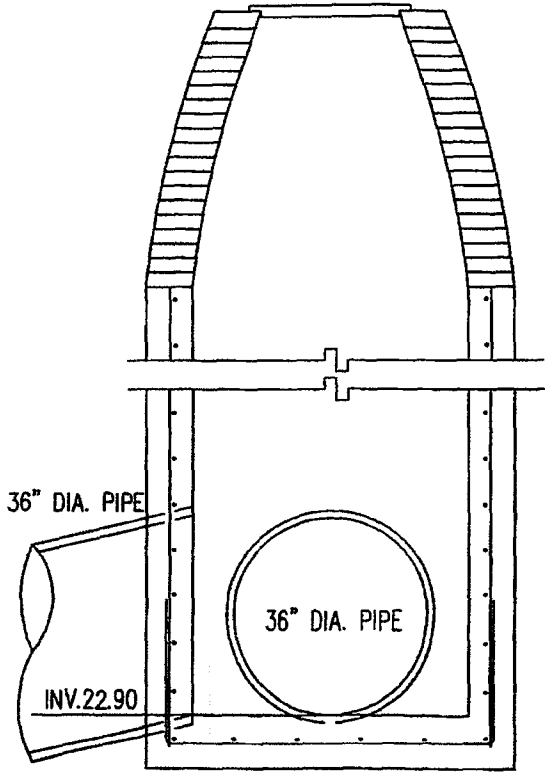
PLA
SCALE:

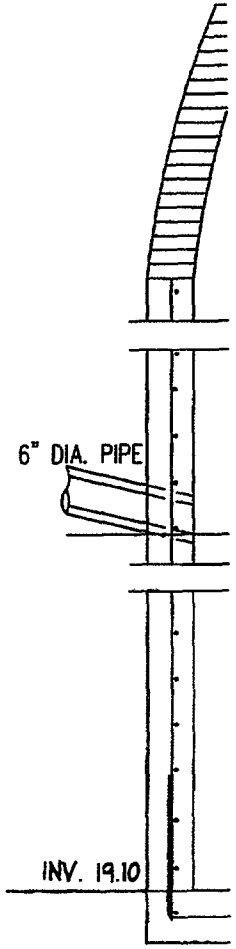
VELL #1



RYWELL #1







SECTION 3.0

DRAINAGE ANALYSIS

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SECTION 3.0

DRAINAGE ANALYSIS

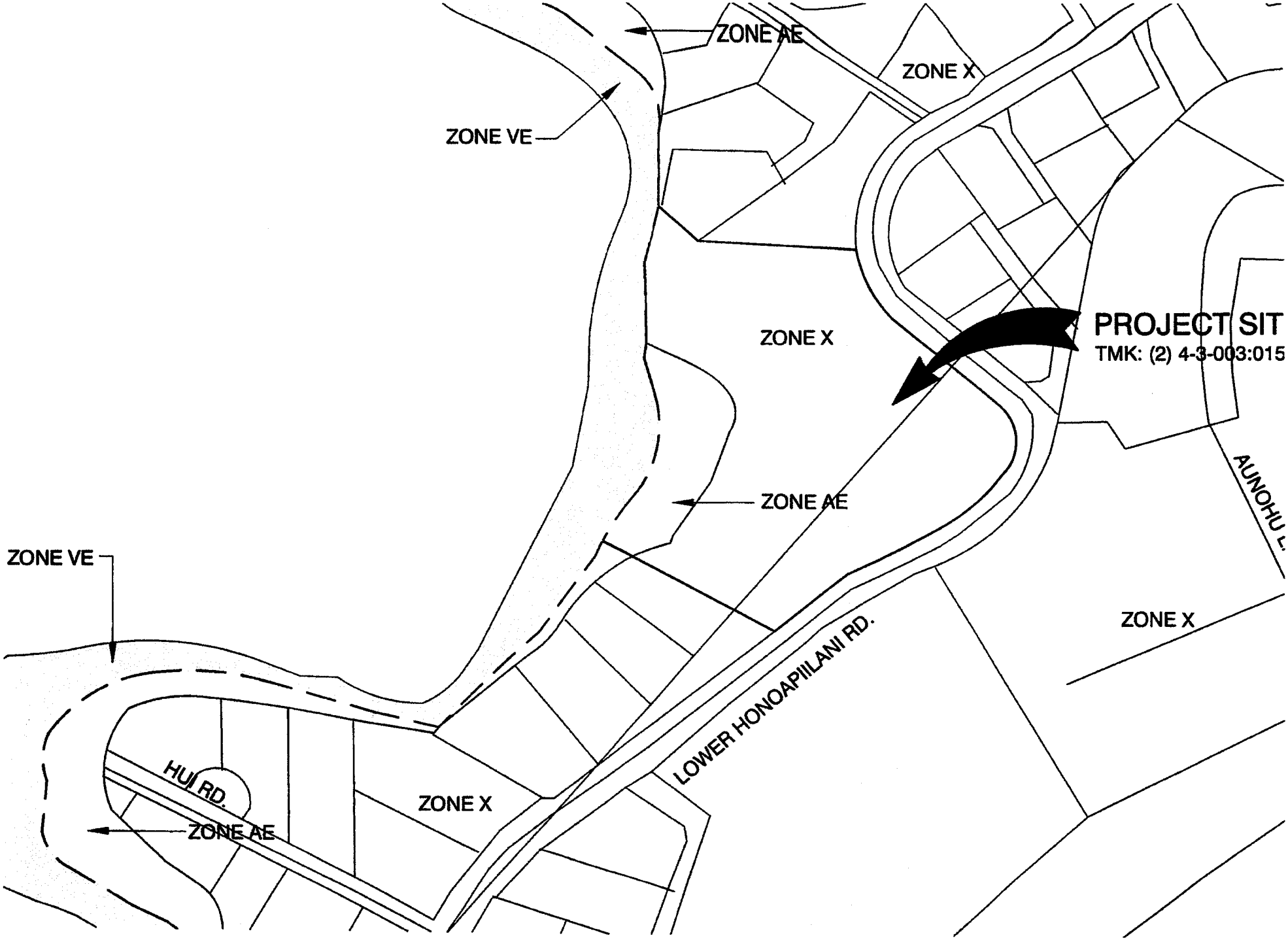
This section presents the methodology used for hydrological analysis of the site and presents the results of this analysis for the existing conditions at the site in contrast to the future conditions when proposed improvements at beach front are constructed. The modification proposed, mostly deal with repair and realignment of existing seawalls, and reconfiguration of the beach.

3.1 Background

As mentioned in the previous sections, in order to address the failure of the retaining wall fronting the BBQ stand, the Kahana Sunset AOAO, has commissioned preparation of a project Master Plan which proposes repair and modifications to existing protective seawalls, and removal of non-complying structures on the property. The AOAO is also, in the process of applying for a shoreline setback variance which is necessary to allow the proposed construction work. This drainage report analyzes and contrasts the existing drainage conditions with the future conditions when the proposed modifications and renovation are implemented in accordance with the project Master Plan.

3.2 Flood Hazard Designation

Flood Insurance Rate Maps (FIRM), are used to evaluate the potential for flooding at the Kahana Sunset Condominium Complex. Based on FIRM Map Index dated September 25, 2009, the project is located on the panel 1500030264E. Accordingly, the site encompasses three flood zone designations, namely, Zone X, Zone AE and Zone VE, as shown in Figure 3-1. The majority of the property lies in Zone X, which refers to an area outside of the 500-year flood plain. The beach front and a section of the ocean front yard, is located in AE Zone, which refers to area within 100-year flood plain with based flood determined at 17 feet. Zone VE which extends seaward of the beach, fronting the property, defines the limits of 100-year coastal flood plain with additional storm waves hazards and dangerous velocities.


ZONE AE
ZONE X
ZONE VE
ZONE X
PROJECT SIT
TMK: (2) 4-3-003:015
ZONE AE
AUNOHU L
ZONE VE
ZONE X
LOWER HONOAPIILANI RD.
HUI RD.
ZONE X
ZONE AE

3.3 Hydrologic Analysis

Two separate hydrologic analyses are performed in this report. The first, examines the existing drainage conditions at the site, and the second, examines the conditions at the site following the construction of the proposed modifications to the seawalls and reconfiguration of the ocean front of the property in accordance with the proposed project Master Plan. The two analyses are performed to discern the impact of project construction work on existing drainage conditions at the site and to determine whether drainage improvements are necessary. The analysis entails dividing the property into small sub-areas for which runoff quantities are calculated using a 10-year design storm and rational method in accordance with the Rules for the Design of Strom Drainage Facilities for the County of Maui.

3.3.1 Hydrologic Criteria

The hydrologic analyses of the existing and completed construction conditions are based upon several hydrologic criteria. The hydrologic criteria for the project site are developed through the use of the guidelines and design charts presented in the Title MC-15, department of Public Works, County of Maui, Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui (RDSDF). The hydrologic criteria are as follows:

1. A recurrence interval (Tm) of 10 years is used for each hydrologic analysis since the drainage area is less than 100 acres, without sumps or tailwater effects and do not involve the design of roadway culverts and bridges.
2. Runoff quantities are calculated using the Rational Method since the drainage area is less than 100 acres.
3. The Rational Method relates the peak discharge to the drainage area, the rainfall intensity and the runoff coefficient. The Rational Method is expressed as the equation:

$$Q = C \cdot I \cdot A,$$

Where Q = flow rate in cubic feet per second (ft3/s);

C = runoff coefficient;

I = rainfall intensity in inches per hour (in/hr) for a duration equal to the time of concentration (Tc); and

A = drainage area in acres.

4. For distinctive composite (nonhomogeneous) drainage areas, a weighted value of C is used. The weighted C value is determined through the equation:

$$C_w = \frac{\sum_{j=1}^{n} C_j \cdot A_j}{\sum_{j=1}^{n} A_j},$$

Where C_W = weighted runoff coefficient;

A_j = Sub-area for specific land cover j;

C_j = runoff coefficient for sub-area j; and

n = number of distinct land covers within Parcel.

5. The 1-hour rainfall value (RV 1-hour) is determined from Plate 4, 10–yr. 1-hr rainfall (in.), in the RDSDF. The RV 1-hour is calculated through linear interpolation of the isohedral lines on Plate 4.

The overland flow time, or time of concentration (Tc) is determined through the use of Plate 1, a nomograph entitled Overland Flow Chart, from the RDSDF. This chart is used for land that is generally paved, bare soil or grassed.

The Tc value, obtained from Plate 1, along with the 1-hour rainfall value from Plate 4, is used in Plate 2, to obtain the design rainfall intensity in inches per hour.

3.3.2 Hydrological Computations - Existing Conditions

The existing conditions at the development, is the basis for calculating the peak storm runoff on the property. The site plan presented in previous Section in Figure 2-2, represents the present conditions at the project site. The entire project area is subdivided into 18 subareas as delineated in Figure 3-2. Storm runoff quantities are then calculated for each sub area and allocated to specific drainage handling infrastructure such as drain intake, storm drain pipe, overland sheet flow, etc. The total runoff volume on the property is then calculated by summing the flows from each subarea. A brief description of each sub area is presented in the following paragraphs.

Subarea No. 1, encompasses part of the lower entrance drive way which is entirely paved with slopes ranging between 7 to 10 percent. Storm runoff in this subarea sheet flows into subarea no. 14, and collected by drain inlet # 1.

Subarea No. 2, encompasses building D and the paved parking lot east of the building. There is a bare strip of soil with shrubs and flower plants on the north end of Building D. Storm runoff in this subarea consists of roof runoff collect by down spouts on both ends of the building and sheet flow on paved surface of the parking area, towards Intake/drywell No. 1.

Subarea No. 3, refers to a strip of bare soil with plans and palm trees sandwiched between the Lower Honoapiilani Road Right-of-Way and the parking area for Building D. Surface runoff that does not infiltrate the soil in this subarea, either directly sheet flows into intake/drywell no.1, or enters Subarea No. 2 before discharging into intake/dry well no.1.

Subarea No. 4, is also a strip of planted land directly north of Buildings D and C, and enclosed between the Lower Honoapiilani Road and the parking area for Building C. Surface runoff from this subarea sheet flows into subareas No. 2 and No. 5.

SUBAREA TABULATION		
SUBAREA 1	5,237.55 SF.	0.12 AC.
SUBAREA 2	18,273.83 SF.	0.42 AC
SUBAREA 3	4,035.94 SF.	0.09 AC.
SUBAREA 4	5,842.07 SF.	0.134 AC.
SUBAREA 5	5,562.05 SF.	0.127 AC.
SUBAREA 6	2,792 SF.	0.064 AC.
SUBAREA 7	12,478.64 SF.	0.28 AC.
SUBAREA 8	6,151.68 SF.	0.14 AC.
SUBAREA 9	3,232.14 SF.	0.074 AC
SUBAREA 10	13,644.35 SF.	0.31 AC
SUBAREA 11	49,959.78 SF.	1.15 AC.
SUBAREA 12	12,897.25 SF.	0.3 AC.
SUBAREA 13	15,148 SF.	0.35 AC.
SUBAREA 14	29,454 SF.	0.68 AC
SUBAREA 15	3,002.88 SF.	0.068 AC.
SUBAREA 16	1,917.45 SF.	0.04 AC.
SUBAREA 17	4,817.27	0.10 AC.
SUBAREA 18	466.33 SF.	0.01 AC.
TOTAL	194,713.2 SF.	4.47 AC.

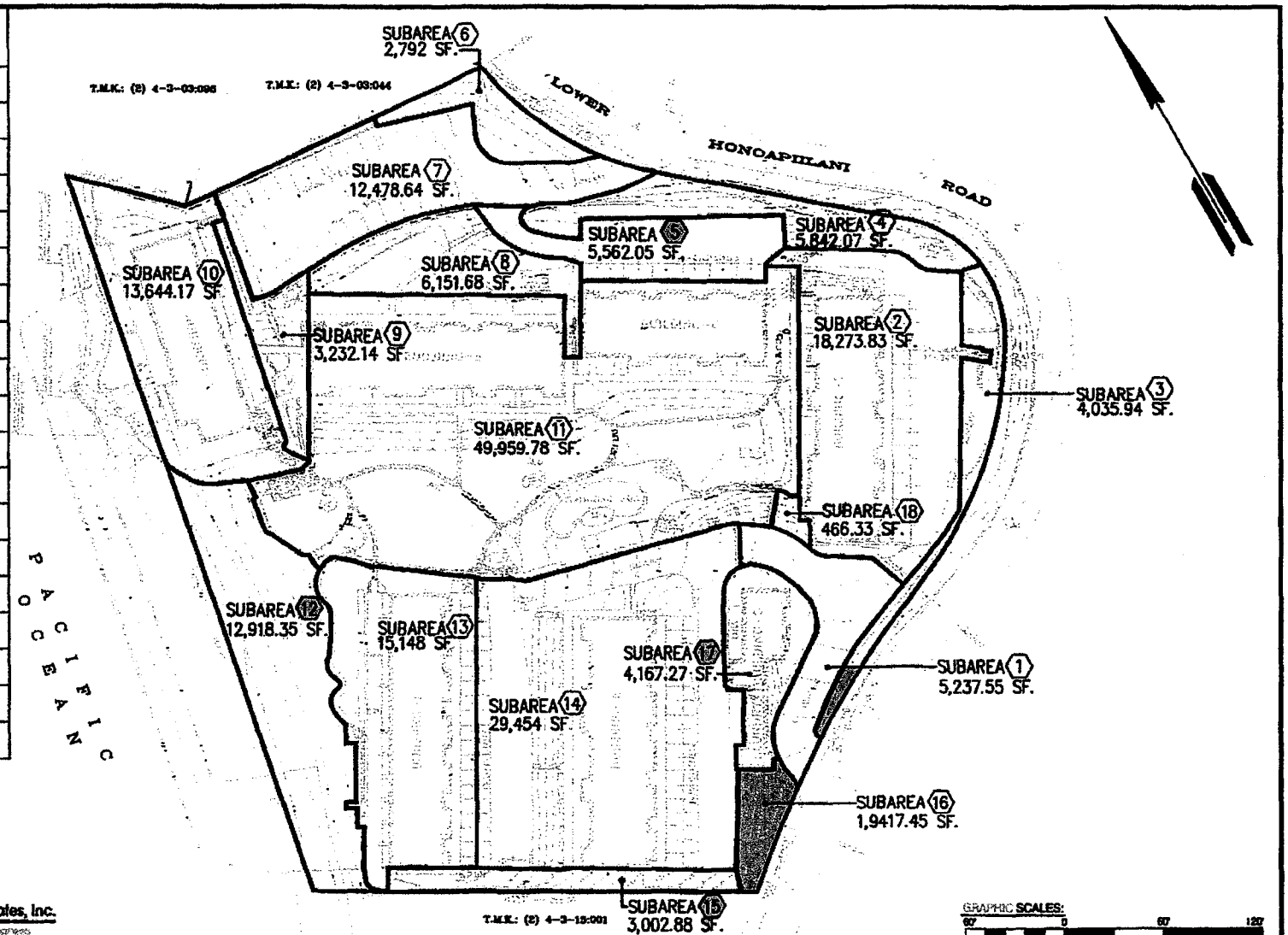


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FIG. 3-2 SUBAREA DELINIATION FOR STORM RUN OFF CALCULATIONS - EXISTING CONDITIONS
SCALE: 1"=60'

Subarea No. 5, consists mainly of the paved parking lot of Building C. Storm runoff in this subarea sheet flows into the existing storm drain manhole, identified as SDMH #3, located in the paved area north of Buildings D and C.

Subarea No. 6, refers to a triangular patch of planted area enclosed by the perimeter fence and the entrance driveway into parking lots of Buildings A, B and C. the patch has a steep slope of about 15 percent. Excess runoff generated in this subarea, and not absorbed by the bare soil, overflows into Subarea No. 7.

Subarea No. 7, is the entire paved driveway and parking lot north of Building B. All storm runoff in this subarea sheet flows south westerly to the drain pipe which conveys the surface flow into the 24-inch wide cobbled drainage channel #1, between Buildings A and B. The channel delivers the flow to the 12-inch storm drain line # 7, which traverses under Building A day lighting on the makai face of the retaining wall fronting Building A.

Subarea No. 8, refers to the landscaped area containing grass and various ornamental plants which is enclosed by Subarea No. 5, Building B and Subarea No. 7. Runoff in this area if not totally absorbed by the soil, sheet flows easterly entering Subarea No. 11, between Buildings B and C.

Subarea No. 9, is the steeply sloped and heavily vegetated space between Buildings A and B. Runoff from this subarea is collected by an existing cobbled open channel which has its outlet adjacent to the 36-inch outfall pipe makai of the barbeque/shower pavilion.

Subarea No. 10, encompasses building A and the open lawn areas to the north and west of it. Roof runoff via down spouts and the sheet flow on open grassed areas, flow into four drain inlets located on the makai side of Building A. All these inlets are piped into the bay by 4-inch PVC drain lines.

Subarea No. 11, refers to the open central section of the development with an area of about 1.15 acres. Its boundaries are defined by building D on the east, buildings C and B on the north, beach area on the west and the entrance roadway on the south. With the exception of buildings B and C, a pool, a pump house, restroom facilities and the shower and the barbeques pavilion, the subarea is open and landscaped with lawn and ornamental flowers, trees, shrubs, hedges and meandering walkways. The open space is gently sloped directing storm runoff, including that from the roofs of Building B and C, to sheet flow towards the central intake structure/dry well or towards the beach.

Subarea No 12, consists of the entire beach area makai of existing seawalls. There is no significant runoff generated in this subarea.

Subarea N. 13, encompasses Building F and the open grassed and tiled areas to the north and makai of it. Roof runoff and surface sheet flow from this subarea enter an existing drain inlet no. 1, in northwest corner of the parking lot adjacent to Building F. An existing 6-inch drain line conveys the flow form this inlet into the main 36-inch line outfall traversing Subarea 11 on its way to the outlet at the beach.

Subarea No. 14, encompasses the paved parking area for Building F on the east, paved main drive way to the north, and Building E and its parking lot. The runoff from the paved surfaces combined with the flow from the building roofs, sheet flow over paved surfaces towards the drain inlet no. 1, at the north west corner of the subarea. There is a small patch of bare soil with plants north of Building E included in this subarea.

Subarea No. 15, refers to sloping strip of land running westerly along the southern perimeter fence. The strip includes bare soil with plants and a few ornamental shrubs and trees. Runoff in this subarea is mostly absorbed by bare soil or sheet flows into subarea 14.

Subarea No. 16, refers to a small patch of sloping land with bare soil and a few plants, enclosed by perimeter fence along L. Honoapiilani Road on the east, the Laundry building, and parking lot of Building E. Storm runoff in this area is mostly absorbed by the bare soil and the overflow enter subarea 15.

Subarea 17, encompasses the manager' residence and its open yard and the laundry room and offices sandwiched between the Lower Honoapiilani Road, entrance driveway and the parking lot of Building F. Flows generated on the roofs of the structures combined with surface flow in this area, sheet flows into subarea No. 15.

And Finally Subarea No. 18, is a small patch of sloping land enclosed by entrance driveway, Building D and subarea 11. Surface runoff in this area, if not totally absorbed by bare soil, will over flow into subarea No. 11.

Peak storm runoff on the property representing the existing conditions is computed based on summation of peak flows calculated for each of the 18 subareas comprising the entire development. The runoff coefficient, C-factor, and time of concentration, T_c, for each subarea are estimated based on composition and nature of surface cover, roof structure, paved, gravel or grass, surface area and slope. For areas comprised of different ground covers a weighted C-factor representing contribution of different surface covers, is used. The one-hour 10-year storm rainfall, in inches, is used to determine the rainfall intensity, in inches per hour, in each subarea and to calculate peak storm runoff generated in each subarea for the existing conditions. Detail storm runoff calculations are presented in Appendix A, and a summary of the results is presented in Table 3-1. Accordingly, 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 makai properties. In an agreement between the County and Kahana Sunset AOAO, this quantity has been agreed to a maximum of

Table 3-1 Summary of Drainage Calculation Results for the Existing Conditions

Subarea	C-factor[1]	Area (Acres)	Runoff Generated by 10-year Storm (ft^3/sec)
$Area_1$	0.9	0.12	0.39
$Area_2$	0.93	0.419	1.28
$Area_3$	0.4	0.093	0.14
$Area_4$	0.4	0.134	0.20
$Area_5$	0.9	0.128	0.39
Area6	0.4	0.064	0.08
$Area_7$	0.9	0.286	0.94
$Area_8$	0.35	0.141	0.19
$Area_9$	0.4	0.074	0.12
$Area_{10}$	0.67	0.313	0.79
$Area_{11}$	0.57	1.147	3.39
$Area_{12}$	0.05	0.296	0.05
$Area_{13}$	0.86	0.348	0.78
$Area_{14}$	0.92	0.676	2.36
$Area_{15}$	0.4	0.069	0.11
$Area_{16}$	0.4	0.044	0.06
$Area_{17}$	0.69	0.106	0.25
$Area_{18}$	0.4	0.011	0.01
	TOTAL ON SITE RUNOFF	**4.47**	**11.53**

[1] C-factor for subareas with multiple cover surfaces, is the weighted C-factor for that area

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 Kahana sunset, including off-site flow, discharging into the Keonenui Bay via the existing 36-inch outfall is 64.65 cfs.

3.3.3 Hydrological Computations – Future (Finished) Conditions

Similar to the existing conditions, storm runoff flows are computed for the future (finished) conditions of the property based on the proposed Master Plan as depicted in Figure 3-3. The new subarea delineation based on the Master Plan is presented in Figure 3-4.

According to this Master Plan, two new flanking walls will be constructed to better delineate and protect the living quarters and the recreational areas from the beach area. It also includes realignment and improvement of the transition area from the on-site open and landscaped grounds and swimming pool to the beach. According to the proposed improvements, the beach area will be extended further into the on-site open space and will be demarcated by the two flanking walls and a semi-circular steps delineating the sandy beach from the landscaped grounds. The new plans also call for demolition of the remainder of the meandering wall fronting Building F, which was severely damaged and eroded during the last storm and was replaced by a new wall further landward of the old wall.

In this fashion the extent of the future beach area represented as Subarea No. 12, will be expanded while that of subarea No. 11 and Subarea No. 13 will reduce. In other words, according to the development plan, in the future, the sandy beach area due to its nature of highly permeable ground cover, albeit a little larger in extent than at present, contributes little to no amount of runoff, while the runoff from Subarea No. 11 and Subarea No. 13 will decrease, from its present conditions, due to reduction in their aerial extents. The rest of the subareas constituting the totality of the development will remain the same. This means that total storm

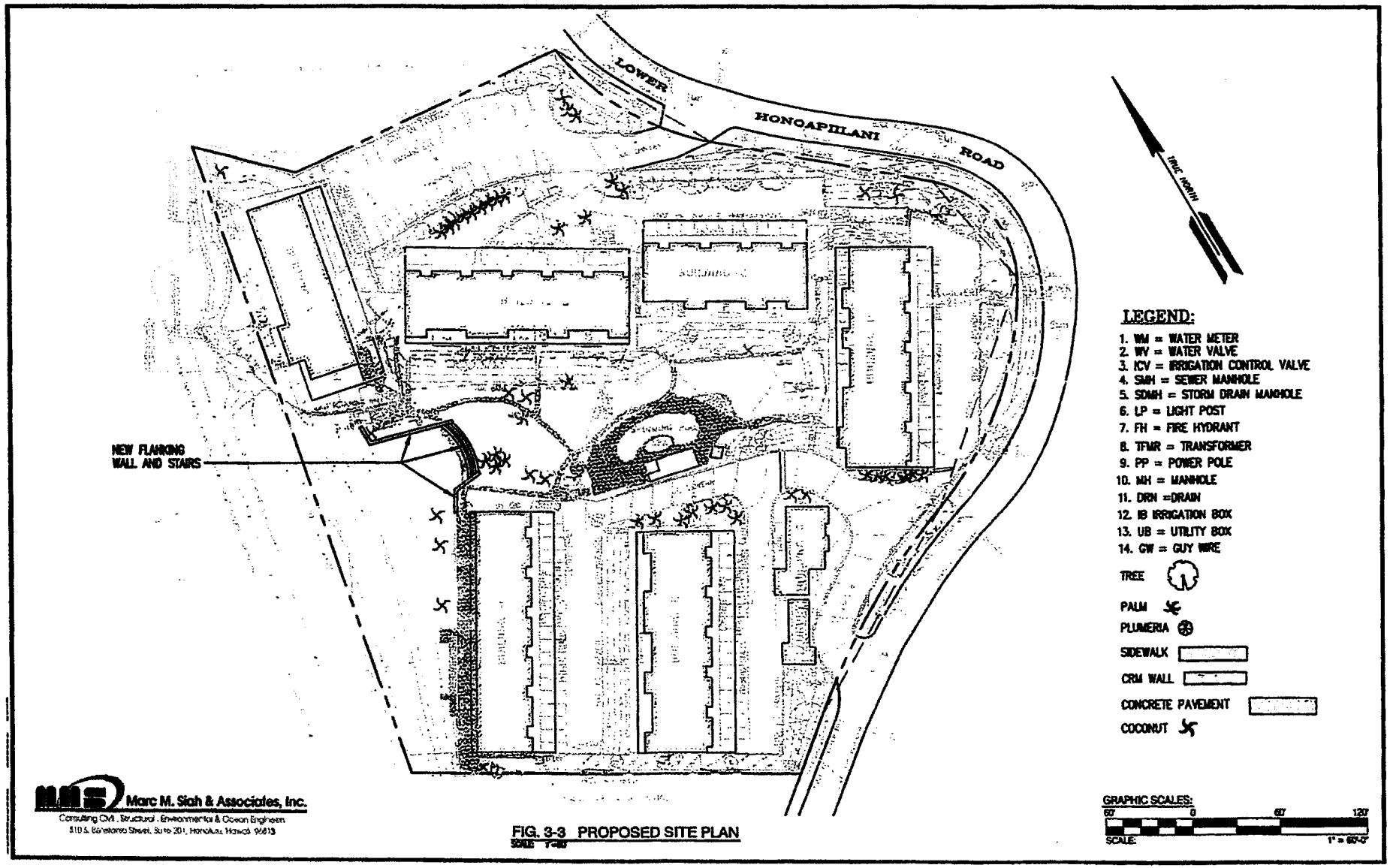

FIG. 3-3 PROPOSED SITE PLAN
SCALE: 1"=60'

SUBAREA TABULATION

SUBAREA 1	5,237.55 SF.	0.12 AC.
SUBAREA 2	18,273.83 SF.	0.42 AC
SUBAREA 3	4,035.94 SF.	0.09 AC.
SUBAREA 4	5,842.07 SF.	0.134 AC.
SUBAREA 5	5,562.05 SF.	0.127 AC.
SUBAREA 6	2,792 SF.	0.064 AC.
SUBAREA 7	12,478.64 SF.	0.28 AC.
SUBAREA 8	6,151.68 SF.	0.14 AC.
SUBAREA 9	3,232.14 SF.	0.074 AC
SUBAREA 10	13,644.35 SF.	0.31 AC
SUBAREA 11	47,438.49 SF.	1.1 AC.
SUBAREA 12	17,952.64 SF.	0.41 AC.
SUBAREA 13	12,635 SF.	0.3 AC.
SUBAREA 14	29,454 SF.	0.68 AC
SUBAREA 15	3,002.88 SF.	0.068 AC.
SUBAREA 16	1,917.45 SF.	0.04 AC.
SUBAREA 17	4,617.27	0.10 AC.
SUBAREA 18	466.33 SF.	0.01 AC.
TOTAL	194,713.2 SF.	4.47 AC.

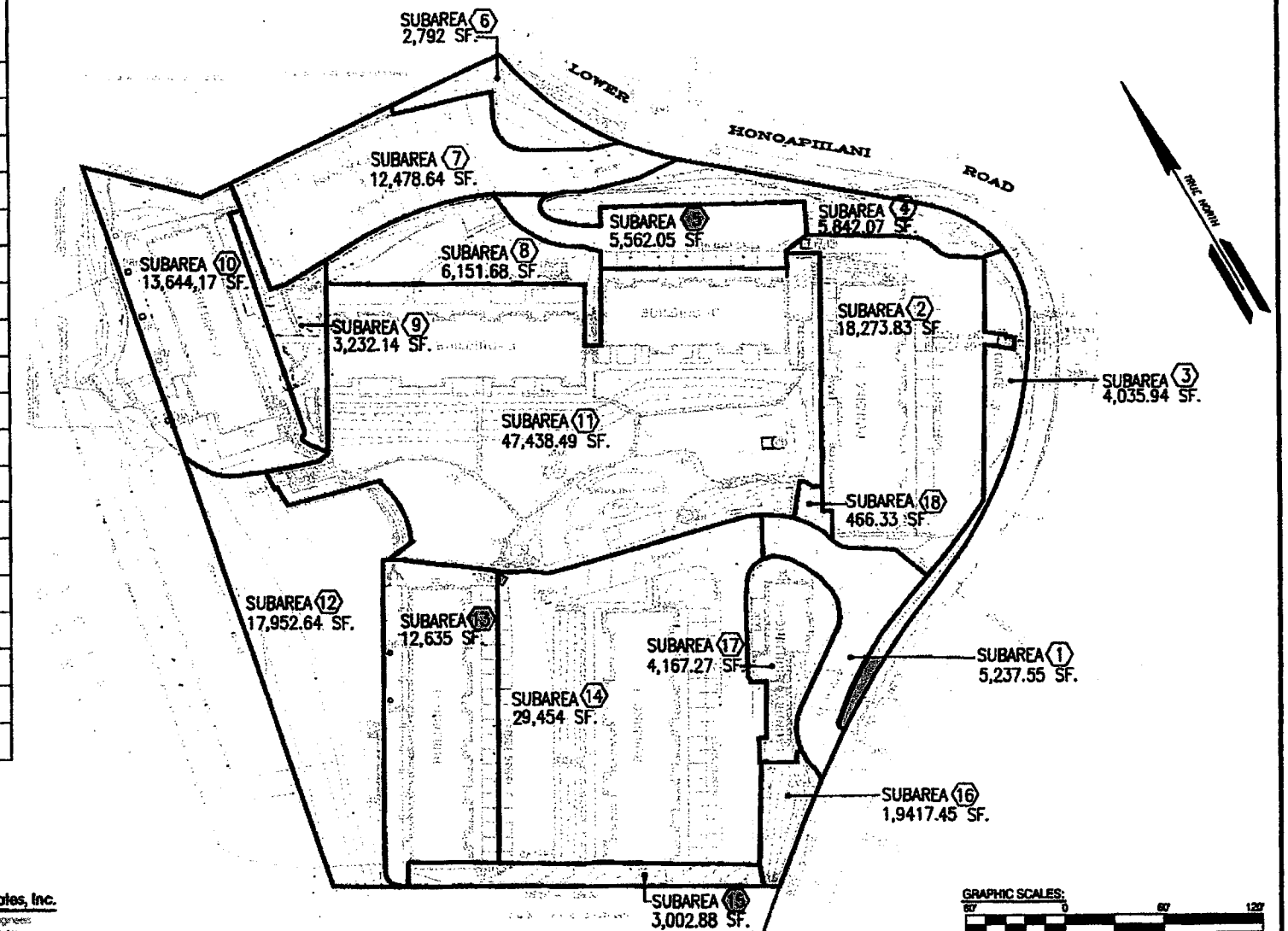

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FIG. 3-4 SUBAREA DELINIATION FOR STORM RUN OFF CALCULATIONS - FUTURE CONDITIONS
SCALE: 1"=60'

runoff generated on the property will reduce from 11.53 cfs to 11.35 cfs, which amounts to about one and half percent reduction, as validated by calculations summarized in Table 3-2.

Table 3-2 Summary of Drainage Calculation Results for the Future (Finished) Condition

Subarea	C-factor[1]	Area (Acres)	Runoff Generated by 10-year Storm (ft^3/sec)
$Area_1$	0.9	0.12	0.39
$Area_2$	0.93	0.419	1.28
$Area_3$	0.4	0.093	0.14
$Area_4$	0.4	0.134	0.20
$Area_5$	0.9	0.128	0.39
Area6	0.4	0.064	0.08
$Area_7$	0.9	0.286	0.94
$Area_8$	0.35	0.141	0.19
$Area_9$	0.4	0.074	0.12
$Area_{10}$	0.67	0.313	0.79
$Area_{11}$	0.58	1.090	3.30
$Area_{12}$	0.05	0.410	0.07
$Area_{13}$	0.89	0.290	0.67
$Area_{14}$	0.92	0.676	2.36
$Area_{15}$	0.4	0.069	0.11
$Area_{16}$	0.4	0.044	0.06
$Area_{17}$	0.69	0.106	0.25
$Area_{18}$	0.4	0.011	0.01
	TOTAL ON SITE RUNOFF	**4.47**	**11.35**

[1] C-factor for subareas with multiple cover surfaces, is the weighted C-factor for that area.

SECTION 4.0

DRAINAGE INFRASTRUCTURE ADEQUACY EVALUATION

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SECTION 4.0

DRAINAGE INFRASTRUCTURE ADEQUACY EVALUATION

In this section adequacy of the existing drainage infrastructure at Kahana Sunset Condominium Complex is evaluated.

4.1 Existing Facilities and Hydraulic Calculations

The overall drainage concept in the development of Kahana Sunset is based on maximizing absorption of runoff on site by means of providing permeable surfaces such as lawn, and planting patches with bare soil, and drywells. The balance of surface runoff, not directly absorbed by ground surface, is then directed and conveyed by surface sheet flow, swales, open channels, drain inlets and drainage pipes, intro the Keonenui Bay. As mentioned in the previous section, storm runoff from off-site mauka properties as well as some flow generated on Lower Honoapiilani Road Right-of-Way, enter into the Kahana Sunset drainage infrastructure prior to disposal via a 36-inch outfall into the Bay. The contribution of Kahana Sunset storm flow to the total runoff discharge into the bay is 11.53 cfs. In contrast, off-site flow traversing the development, can reach as high as 53.12 cfs. In other words, storm runoff discharge from Kahana Sunset could be as low as 17.8% of total discharge into the bay.

A series of computer simulations are performed to determine depths of flow in various existing on-site drain pipes and cobbled channels and the velocities which could be expected in each. Details of these calculations are presented in Appendix B. A summary of hydraulic parameters for each storm drain pipe and channel are presented in Table 4-1.

Accordingly, all drain pipes with the exception of Drain line # 6, in Kahana Sunset Drainage system, are adequate to conveys potential runoff flows from their tributary areas. However, storm drain line No. 6, which conveys storm runoff collected by the inlet # 1, located at the north east corner of Building F, is inadequate. The calculations further confirms the observation by the residents of Kahana Sunset Condominium, that during severe storm events, the inlet # 1,

over flows and floods the area. Based on these calculations presented in Appendix B, replacing, the existing 6-inch line with an 8-inch drain line will alleviate the flooding in the area.

Table 4-1 Hydraulic Parameters for Strom Drain Pipes and Channels

Component of Drainage System	Length (Feet)	Diameter/Width (Inches)	Slope (ft/ft)	Flow rate (cfs)	Depth (Inches)
Storm Drain Line # 1	50.60	36	0.0395	45.42	14.64
Storm Drain Line # 2	88.25	36	0.043	45.42	14.16
Storm Drain Line # 3	26.30	30	0.389	9.12	3.84
Storm Drain Line # 4	118.7	24	0.083	55.13	16.92
Storm Drain Line # 5:					
Sta. 0+00 to Sta. 1+88.1	188.10	36	0.008	55.13	27.36
Sta. 1+88.1 to Sta. 3+05.1	117.00	36	0.008	59.08	29.16
Storm Drain Line # 6	24.50	6	0.213	3.95	7.00[1]
Storm Drain Line # 6	24.50	8	0.213	3.95	5.00
Storm Drain Line # 6	24.50	10	0.213	3.95	4.30
Storm Drain Line # 7	84.00	12	0.063	1.02	2.70
Strom Drain Line # 8	10.3	6	0.388	0.59	1.70
Cobbled Open Channel # 1:					
Sta. 0+00 to Sta. 0+31.7	31.7	24	0.346	1.02	0.24
Sta. 0+31.7 to Sta. 0+76	44.3	24	0.19	1.02	0.36
Cobbled Open Channel # 2:					
Sta. 0+00 to Sta. 0+47.8	47.80	24	0.123	0.12	0.12
Sta. 0+47.8 to Outlet	30.50	24	0.118	3.59	0.72

[1] indicates that 6-inch pipe is inadequate.

The 24-inch storm drain line, SDL #4, which connects SDMH # 3 located in the paved area between Buildings C and D to the main SDMH/ Dry Well # 1, in the central open space, although has the capacity to convey the potential runoff form it's contributory areas, it creates a bottle neck in the system. During major storm events, when contribution from Napili Villas development and runoff from roadway right-of-way are the highest, this storm drain flows 70.56 percent full. The velocities in this line would reach as high as 23.26 fps. The Hydraulic Grade Line, HGL, calculations show that the 24 inch line causes water levels in the upstream manhole, SDMH # 2, to rise to 26.68 feet level, merely less than five feet below the ground surface. The impact of high HGL reaches even to Intake/Dry Well # 2. In other words, during a very severe storm when, off-site flows reaching Kahana Sunset may become even larger than the anticipated 53.12 cfs, both SDMH # 2, and the Intake/Dry Well # 2, may overflow causing material damage to the development. Replacing this segment of drain line with a larger 30-inch or 36-inch line, would reduce flow velocities and alleviate hydraulic inadequacy of the system during sever events. It would further ensure that system will have excess capacity for conveyance of unanticipated and unusual off-site runoff volumes. The hydraulic calculations also indicate that the two cobble-lined open channels are more than adequate for conveyance of storm waters from their respective tributary areas.

4.2 Conclusions and Recommendations

Review of the findings of drainage analyses presented in this report, leads to the conclusion that, overall the drainage Infrastructure in Kahana Sunset, albeit old, is adequate to receive, collect, convey and dispose of all on-site storm runoff as well as off-site discharges into the system with the exception of the storm drain line no. 6. By replacing this line with a larger pipe, i.e., an 8-inch storm drain, the system will adequately handle the drainage needs of the development. However, as the calculations indicate, the 24-inch storm drain no. 4 creates a bottle neck in the system and during unusually severe storm events, may cause flooding of the upstream manhole no. 2, and even the intake/dry well # 2.

DRAINAGE INFRASTRUCTURE ADEQUACY EVALUATION

Since the existing storm drain inlets in the Lower Honoapiilani Road right-of-way are not well maintained and in poor conditions, not all runoff generated on the roadway is collected and conveyed into the system. During severe storm events some of the roadway runoff will sheet flow along the length of the property bordering the roadway, entering into the development and causing erosion and potentially property damage. New planned drainage improvements by the Maui County will alleviate this shortcoming and eliminate potential flooding of the property. However, in the short term, and before these proposed improvements are installed, it is prudent to devise a mechanism for blockage and interception of overland flow from roadway right-of-way. Barricading the length of property line along the roadway with sand bags or installing a new intercepting ditch along the roadway shoulder parallel to the property line, are two temporary schemes for protecting the development from localized erosion due to unimpeded stray overland flow of roadway storm runoff into the property. Additionally, the alleged cracks in the section of the existing 24-inch culvert/drain pipe crossing under the Lower Honoapiilani Road, and the conveying storm run-off overflows from Napili Villas' detention/retention basins, into the Kahana Sunset system, needs to be verified. Upon verifications, the section shall either be repaired or replaced. Other improvements to on-site drainage infrastructure shall include:

a. Design and construction of a new terminus for the 36-inch storm drain/outfall, which daylights at the beach, makai of the existing shower/barbeque pavilion;
b. Installation of a new drain pipe and inlet to replace the inadequate storm drain no. 6, and drain inlet no. 1, which receive overland flows from paved drive way, and the parking areas of Buildings E and F;
c. Install a new drain inlet at the south-western corner of parking lot for Building A and B. The new inlet shall replace the existing pipe which conveys runoff from the paved parking area into the open channel no. 1., and is often blocked by leaves and extraneous materials, causing localized ponding;

d. Construct a new inlet at the terminus of Channel no. 1, to improve conveyance of channelized flow into the existing drain line no. 7, terminates along the face of the retaining wall fronting Building A;

e. Construct an intercepting channel with gratings, to be installed along the width of the lower driveway, at location(s) to be determined, in order to reduce potential hazards of slippery driveway. A new pipe shall be installed to connect the end of the intercepting channel to the new inlet no. 1;

f. Inspect and clean all existing on-site storm manholes, to ensure they are free of blockages and debris.

g. Retrofit and install filters in all on-site drain inlets, to capture sediments, debris and other pollutants before they enter the system and ultimately discharge into the bay.

APPENDICES

APPENDIX A

Drainage Calculations

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EXISTING CONDITIONS: (Please refer to Figure 3-2)

Subarea No. 1:

$Area_1$ = 5237.55 sf = 0.12 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 180.00 ft.
Δ Height = 18.00 ft.
% Slope = 10.00
T_C = 16.80 min. From Plate 1, (RDSDF)
I = 3.61 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area1} = C*i*A = 0.9*3.61*0.12
= 0.39 cfs

Subarea No. 2:

$Area_2$ = 18273.83 sf = 0.42 Ac.
$A_{PAVEMENT}$ = 8086.17 sf = 0.19 Ac.
A_{ROOF} = 10187.66 sf = 0.23 Ac.
$C_{PAVEMENT}$ = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{PAVEMENT}*C_{PAVEMENT})/AREA_2 = 0.93$
Δ Length = 140.00 ft.
Δ Height = 6.50 ft.
% Slope = 4.64
T_C = 20.00 min. From Plate 1, (RDSDF)
I = 3.28 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area2} = C*i*A = 0.93*3.28*0.42
= 1.28 cfs

Subarea No. 3:

$Area_3$ = 4035.94 sf = 0.09 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 95.00 ft.
Δ Height = 10.89 ft.

% Slope = 11.46
T_C = 15.50 min. From Plate 1, (RDSDF)
I = 3.65 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area3} = C*i*A = 0.4*3.65*0.09
= 0.14 cfs

Subarea No. 4:

$Area_4$ = 5842.07 sf = 0.13 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 90.00 ft.
Δ Height = 16.14 ft.
% Slope = 17.93
T_C = 15.00 min. From Plate 1, (RDSDF)
I = 3.70 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area4} = C*i*A = 0.4*3.7*0.13
= 0.20 cfs

Subarea No. 5:

$Area_5$ = 5562.05 sf = 0.13 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 190.00 ft.
Δ Height = 6.50 ft.
% Slope = 3.42
T_C = 18.00 min. From Plate 1, (RDSDF)
I = 3.40 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area5} = C*i*A = 0.9*3.4*0.13
= 0.39 cfs

Subarea No. 6:

$Area_6$ = 2792 sf = 0.06 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 52.00 ft.
Δ Height = 10.18 ft.
% Slope = 19.58
T_C = 18.50 min. From Plate 1, (RDSDF)
I = 3.30 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area6} = C*i*A = 0.4*3.3*0.06
= 0.08 cfs

Subarea No. 7:

$Area_7$ = 12478.64 sf = 0.29 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 260.00 ft.
Δ Height = 15.00 ft.
% Slope = 5.77
T_C = 15.50 min. From Plate 1, (RDSDF)
I = 3.65 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area7} = C*i*A = 0.9*3.65*0.29
= 0.94 cfs

Subarea No. 8:

$Area_8$ = 6151.68 sf = 0.14 Ac.
C = 0.35 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 80.00 ft.
Δ Height = 8.24 ft.
% Slope = 10.30
T_C = 12.50 min. From Plate 1, (RDSDF)
I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area8} = C*i*A = 0.35*3.8*0.14
= 0.19 cfs

Subarea No. 9:

$Area_9$ = 3231.14 sf = 0.07 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 115.00 ft.
Δ Height = 18.33 ft.
% Slope = 15.94
T_C = 11.20 min. From Plate 1, (RDSDF)
I = 3.90 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area9} = C*i*A = 0.4*3.9*0.07
= 0.12 cfs

Subarea No. 10:

$Area_{10}$ = 13644.35 sf = 0.31 Ac.
A_{LAWN} = 5931.22 sf = 0.14 Ac.
A_{ROOF} = 7713.13 sf = 0.18 Ac.
C_{LAWN} = 0.30 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{LAWN}*C_{LAWN})/AREA_{10}$= 0.67
Δ Length = 80.00 ft.
Δ Height = 10.36 ft.
% Slope = 12.95
T_C = 13.50 min. From Plate 1, (RDSDF)
I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area10} = C*i*A = 0.67*3.8*0.31
= 0.79 cfs

Subarea No. 11:

$Area_{11}$ = 49959.78 sf = 1.15 Ac.
A_{LAWN} = 29344.28 sf = 0.67 Ac.
A_{ROOF} = 20615.50 sf = 0.47 Ac.
C_{LAWN} = 0.30 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{LAWN}*C_{LAWN})/AREA_{11}$= 0.57
Δ Length = 400.00 ft.
Δ Height = 19.96 ft.
% Slope = 4.99
T_C = 7.00 min. From Plate 1, (RDSDF)
I = 5.20 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area10} = C*i*A = 0.57*5.2*1.15
= 3.39 cfs

Subarea No. 12:

$Area_{12}$ = 12897.25 sf = 0.30 Ac.
C = 0.05 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 75.00 ft.
Δ Height = 12.10 ft.
% Slope = 16.13
T_C = 16.00 min. From Plate 1, (RDSDF)

I = 3.60 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area12} = C*i*A = 0.05*3.60*0.3

= 0.05 cfs

Subarea No. 13:

$Area_{13}$ = 15148 sf = 0.35 Ac.

$A_{TILE/PAV.}$ = 5376.54 sf = 0.12 Ac.

A_{ROOF} = 9771.46 sf = 0.22 Ac.

$C_{TILE/PAV.}$ = 0.70 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

$C_W = (A_{ROOF}*C_{ROOF}+A_{TILE/PAV.}*C_{TILE/PAV.})/AREA_{13}$= 0.86

Δ Length = 60.00 ft.

Δ Height = 0.67 ft.

% Slope = 1.12

T_C = 33.00 min. From Plate 1, (RDSDF)

I = 2.60 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area13} = C*i*A = 0.86*2.6*0.35

= 0.78 cfs

Subarea No. 14:

$Area_{14}$ = 29454 sf = 0.68 Ac.

$A_{PAVEMENT}$ = 19080.36 sf = 0.44 Ac.

A_{ROOF} = 10373.64 sf = 0.24 Ac.

$C_{PAVEMENT}$ = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

$C_W = (A_{ROOF}*C_{ROOF}+A_{PAVEMENT}*C_{PAVEMENT})/AREA_{14}$= 0.92

Δ Length = 320.00 ft.

Δ Height = 26.65 ft.

% Slope = 8.33

T_C = 13.10 min. From Plate 1, (RDSDF)

I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area14} = C*i*A = 0.92*3.8*0.68

= 2.36 cfs

Subarea No. 15:

$Area_{15}$ = 3002.88 sf = 0.07 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 210.00 ft.
Δ Height = 24.00 ft.
% Slope = 11.43
T_C = 11.20 min. From Plate 1, (RDSDF)
I = 3.90 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area15} = C*i*A = 0.4*39*0.07
= 0.11 cfs

Subarea No. 16:

$Area_{16}$ = 1917.45 sf = 0.04 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 55.00 ft.
Δ Height = 7.24 ft.
% Slope = 13.16
T_C = 19.50 min. From Plate 1, (RDSDF)
I = 3.25 in/hr, Rainfall Intensity from Plate 2, RDSDF
Q_{area16} = C*i*A = 0.4*3.25*0.04
= 0.06 cfs

Subarea No. 17:

$Area_{17}$ = 4617.27 sf = 0.11 Ac.
A_{SOIL}= 2199.31 sf = 0.05 Ac.
A_{ROOF} = 2417.96 sf = 0.06 Ac.
C_{SOIL}= 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{SOIL}*C_{SOIL})/AREA_2$= 0.69
Δ Length = 57.00 ft.
Δ Height = 4.08 ft.
% Slope = 7.16
T_C = 19.00 min. From Plate 1, (RDSDF)
I =3.40 in/hr. Rainfall Intensity from Plate 2, RDSDF
$Qarea_{17}$ = C*i*A = 0.69*3.4*0.11
= 0.25 cfs

Subarea No. 18:

$Area_{18}$ = 466.33 sf = 0.01 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF) Δ
Length = 35.00 ft.
Δ Height = 10.20 ft.
% Slope = 29.14
T_C = 21.00 min. From Plate 1, (RDSDF)
I = 3.20 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area18} = C*i*A = 0.4*3.2*0.01
= 0.01 cfs

Q_{Total} = 11.53 cfs

FUTURE CONDITIONS: (Please refer to Figure 3-4)

Subarea No. 1:

$Area_1$ = 5237.55 sf = 0.12 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 180.00 ft.
Δ Height = 18.00 ft.
% Slope = 10.00
T_C = 16.80 min. From Plate 1, (RDSDF)
i = 3.61 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area1} = C*i*A = 0.9*3.61*0.12
= 0.39 cfs

Subarea No. 2:

$Area_2$ = 18273.83 sf = 0.42 Ac.
$A_{PAVEMENT}$ = 8086.17 sf = 0.19 Ac.
A_{ROOF} = 10187.66 sf = 0.23 Ac.
$C_{PAVEMENT}$ = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{PAVEMENT}*C_{PAVEMENT})/AREA_2$ = 0.93
Δ Length = 140.00 ft.
Δ Height = 6.50 ft.
% Slope = 4.64
T_C = 20.00 min. From Plate 1, (RDSDF)
I = 3.28 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area2} = C*i*A = 0.93*3.28*0.42
= 1.28 cfs

Subarea No. 3:

$Area_3$ = 4035.94 sf = 0.09 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 95.00 ft.
Δ Height = 10.89 ft.
% Slope = 11.46
T_C = 15.50 min. From Plate 1, (RDSDF)
I = 3.65 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area3} = C*i*A = 0.4*3.65*0.09

= 0.14 cfs

Subarea No. 4:

$Area_4$ = 5842.07 sf = 0.13 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 90.00 ft.
Δ Height = 16.14 ft.
% Slope = 17.93
T_C = 15.00 min. From Plate 1, (RDSDF)
I = 3.70 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area4} = C*i*A = 0.4*3.7*0.13
= 0.20 cfs

Subarea No. 5:

$Area_5$ = 5562.05 sf = 0.13 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 190.00 ft.
Δ Height = 6.50 ft.
% Slope = 3.42
T_C = 18.00 min. From Plate 1, (RDSDF)
I = 3.40 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area5} = C*i*A = 0.9*3.4*0.13
= 0.39 cfs

Subarea No. 6:

$Area_6$ = 2792 sf = 0.06 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 52.00 ft.
Δ Height = 10.18 ft.
% Slope = 19.58
T_C = 18.50 min. From Plate 1, (RDSDF)
I = 3.30 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area6} = C*i*A = 0.4*3.3*0.06
= 0.08 cfs

Subarea No. 7:

$Area_7$ = 12478.64 sf = 0.29 Ac.
C = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 260.00 ft.
Δ Height = 15.00 ft.
% Slope = 5.77
T_C = 15.50 min. From Plate 1, (RDSDF)
I = 3.65 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area7} = C*i*A = 0.9*3.65*0.29
= 0.94 cfs

Subarea No. 8:

$Area_8$ = 6151.68 sf = 0.14 Ac.
C = 0.35 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 80.00 ft.
Δ Height = 8.24 ft.
% Slope = 10.30
T_C = 12.50 min. From Plate 1, (RDSDF)
I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area8} = C*i*A = 0.35*3.8*0.14
= 0.19 cfs

Subarea No. 9:

$Area_9$ = 3231.14 sf = 0.07 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 115.00 ft.
Δ Height = 18.33 ft.
% Slope = 15.94
T_C = 11.20 min. From Plate 1, (RDSDF)
i = 3.90 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area9} = C*i*A = 0.4*3.9*0.07
= 0.12 cfs

Subarea No. 10:

$Area_{10}$ = 13644.35 sf = 0.31 Ac.
A_{LAWN} = 5931.22 sf = 0.14 Ac.
A_{ROOF} = 7713.13 sf = 0.18 Ac.
C_{LAWN} = 0.30 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{LAWN}*C_{LAWN})/AREA_{10}$= 0.67
Δ Length = 80.00 ft.
Δ Height = 10.36 ft.
% Slope = 12.95
T_C = 13.50 min. From Plate 1, (RDSDF)
I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area10} = C*i*A = 0.67*3.8*0.31
= 0.79 cfs

Subarea No. 11:

$Area_{11}$ = 47438.49 sf = 1.09 Ac.
A_{LAWN} = 26822.99 sf = 0.62 Ac.
A_{ROOF} = 20615.50 sf = 0.47 Ac.
C_{LAWN} = 0.30 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{LAWN}*C_{LAWN})/AREA_{11}$= 0.58
Δ Length = 400.00 ft.
Δ Height = 19.96 ft.
% Slope = 4.99
T_C = 7.00 min. From Plate 1, (RDSDF)
I = 5.20 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area10} = C*i*A = 0.58*5.2*1.09
= 3.3 cfs

Subarea No. 12:

$Area_{12}$ = 17952.64 sf = 0.41 Ac.
C = 0.05 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 82.00 ft.
Δ Height = 12.60 ft.
% Slope = 15.37
T_C = 15.00 min. From Plate 1, (RDSDF)

I = 3.58 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area12} = C*i*A = 0.05*3.580*0.41

= 0.07 cfs

Subarea No. 13:

$Area_{13}$ = 12635 sf = 0.29 Ac.

$A_{TILE/PAV.}$ = 2863.54 sf = 0.07 Ac.

A_{ROOF} = 9771.46 sf = 0.22 Ac.

$C_{TILE/PAV.}$ = 0.70 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

$C_W = (A_{ROOF}*C_{ROOF}+A_{TILE/PAV.}*C_{TILE/PAV.})/AREA_{13}$= 0.89

Δ Length = 60.00 ft.

Δ Height = 0.67 ft.

% Slope = 1.12

T_C = 33.00 min. From Plate 1, (RDSDF)

I = 2.60 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area13} = C*i*A = 0.86*2.6*0.29

= 0.67 cfs

Subarea No. 14:

$Area_{14}$ = 29454 sf = 0.68 Ac.

$A_{PAVEMENT}$ = 19080.36 sf = 0.44 Ac.

A_{ROOF} = 10373.64 sf = 0.24 Ac.

$C_{PAVEMENT}$ = 0.90 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)

$C_W = (A_{ROOF}*C_{ROOF}+A_{PAVEMENT}*C_{PAVEMENT})/AREA_{14}$= 0.92

Δ Length = 320.00 ft.

Δ Height = 26.65 ft.

% Slope = 8.33

T_C = 13.10 min. From Plate 1, (RDSDF)

I = 3.80 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area14} = C*i*A = 0.92*3.8*0.68

= 2.36 cfs

Subarea No. 15:

$Area_{15}$ = 3002.88 sf = 0.07 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 210.00 ft.
Δ Height = 24.00 ft.
% Slope = 11.43
T_C = 11.20 min. From Plate 1, (RDSDF)
I = 3.90 in/hr. Rainfall Intensity from Plate 2, RDSDF
Q_{area15} = C*i*A = 0.4*39*0.07
= 0.11 cfs

Subarea No. 16:

$Area_{16}$ = 1917.45 sf = 0.04 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 55.00 ft.
Δ Height = 7.24 ft.
% Slope = 13.16
T_C = 19.50 min. From Plate 1, (RDSDF)
I = 3.25 in/hr, Rainfall Intensity from Plate 2, RDSDF
Q_{area16} = C*i*A = 0.4*3.25*0.04
= 0.06 cfs

Subarea No. 17:

$Area_{17}$ = 4617.27 sf = 0.11 Ac.
A_{SOIL}= 2199.31 sf = 0.05 Ac.
A_{ROOF} = 2417.96 sf = 0.06 Ac.
C_{SOIL}= 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
C_{ROOF} = 0.95 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
$C_W = (A_{ROOF}*C_{ROOF}+A_{SOIL}*C_{SOIL})/AREA_2$= 0.69
Δ Length = 57.00 ft.
Δ Height = 4.08 ft.
% Slope = 7.16
T_C = 19.00 min. From Plate 1, (RDSDF)
I =3.40 in/hr. Rainfall Intensity from Plate 2, RDSDF
$Qarea_{17}$ = C*i*A = 0.69*3.4*0.11
= 0.25 cfs

Subarea No. 18:

$Area_{18}$ = 466.33 sf = 0.01 Ac.
C = 0.40 From Table 2, Rules of the Design of Storm Drainage Facilities (RDSDF)
Δ Length = 35.00 ft.
Δ Height = 10.20 ft.
% Slope = 29.14
T_C = 21.00 min. From Plate 1, (RDSDF)
I = 3.20 in/hr. Rainfall Intensity from Plate 2, RDSDF

Q_{area18} = C*i*A = 0.4*3.2*0.01
= 0.01 cfs

Q_{Total} = 11.35 cfs

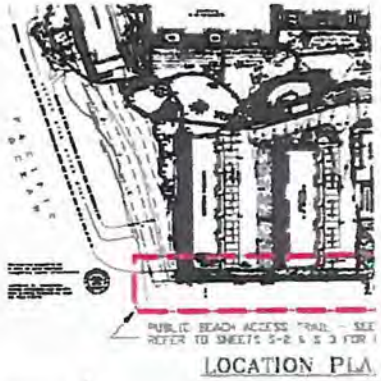
Δ Q = 0.18 cfs Amount of runoff reduction under Future conditions, or (0.18/11.53)* 100=1.56%

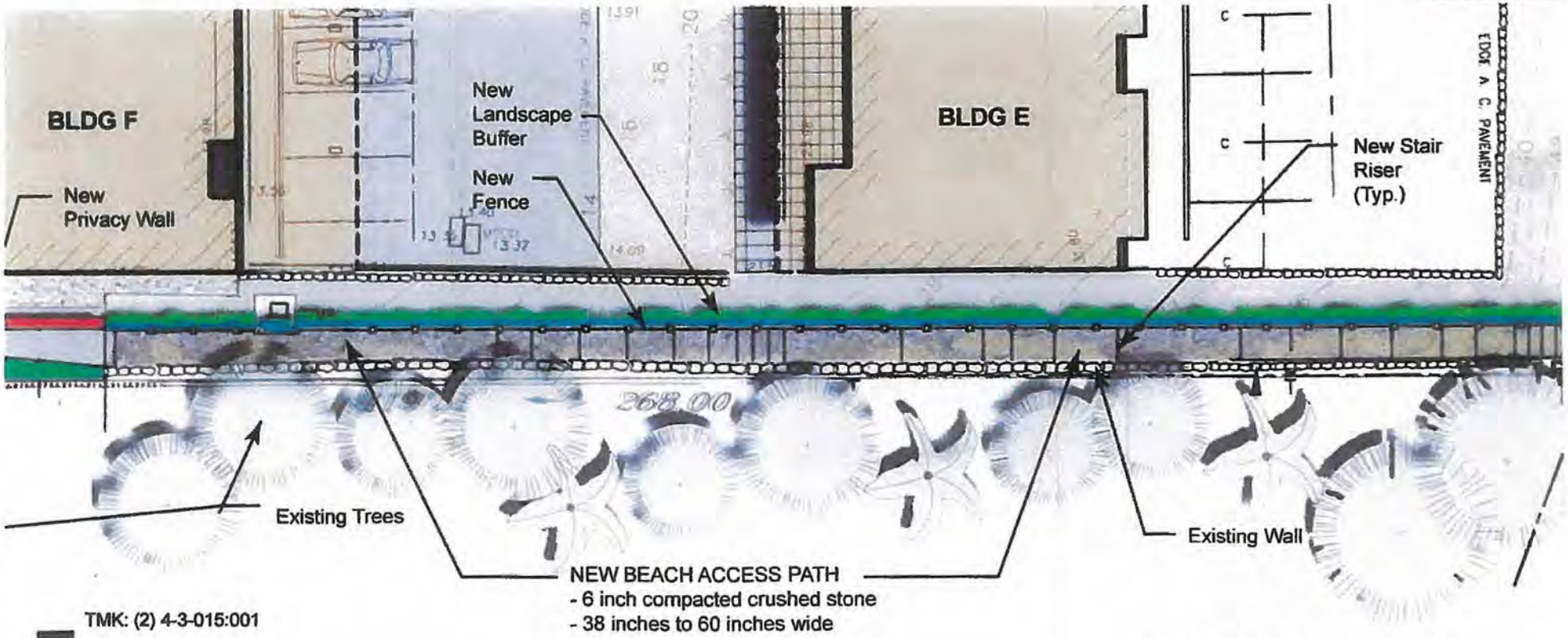
APPENDIX B

Hydraulic Calculations for Drain Pipes and Channels

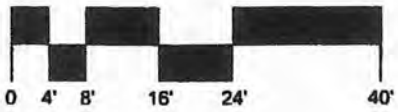
(Not included)
Jim Buika
Planner

Marc M. Siah & Associates, Inc.
Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813





TMK: (2) 4-3-015:001



SCALE: 1 inch = 20 feet

PROJECT: 09-143

S

EXHIBIT 5

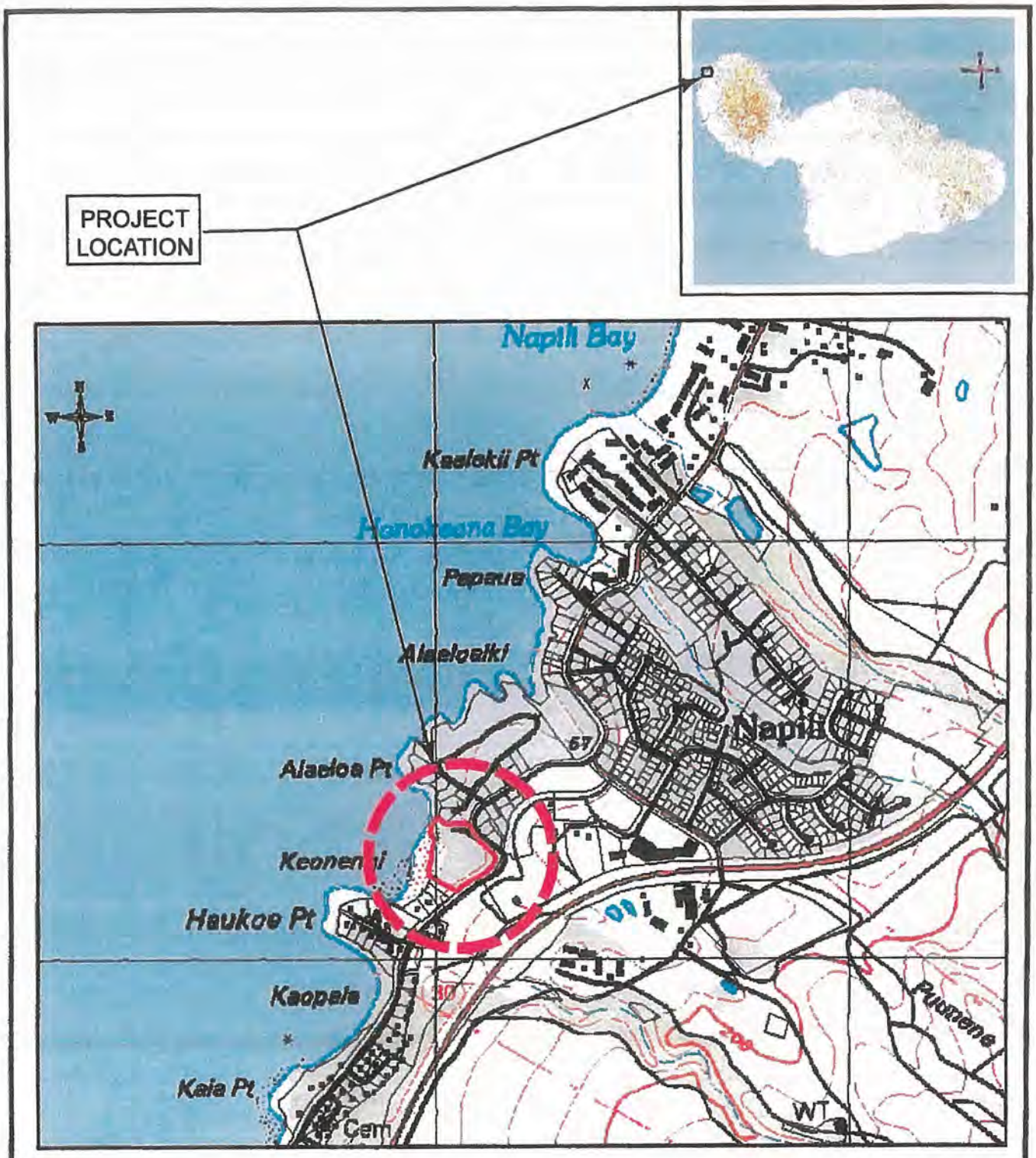


FIGURE 1

Not to Scale	JANUARY 2014
REGIONAL LOCATION	
KAHANA SUNSET	

CHRIS HART & PARTNERS, INC.

EXHIBIT 6

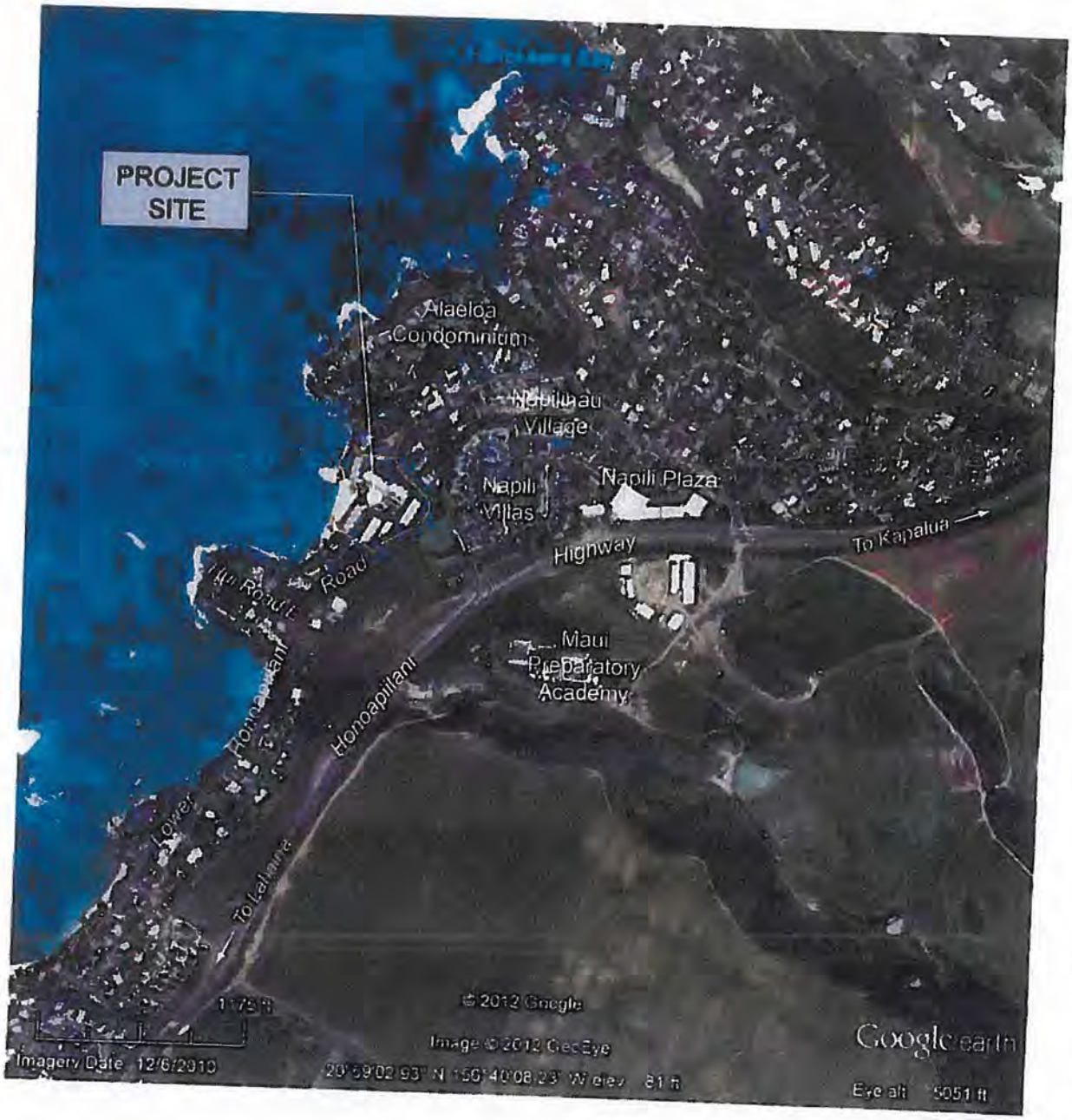


FIGURE 2

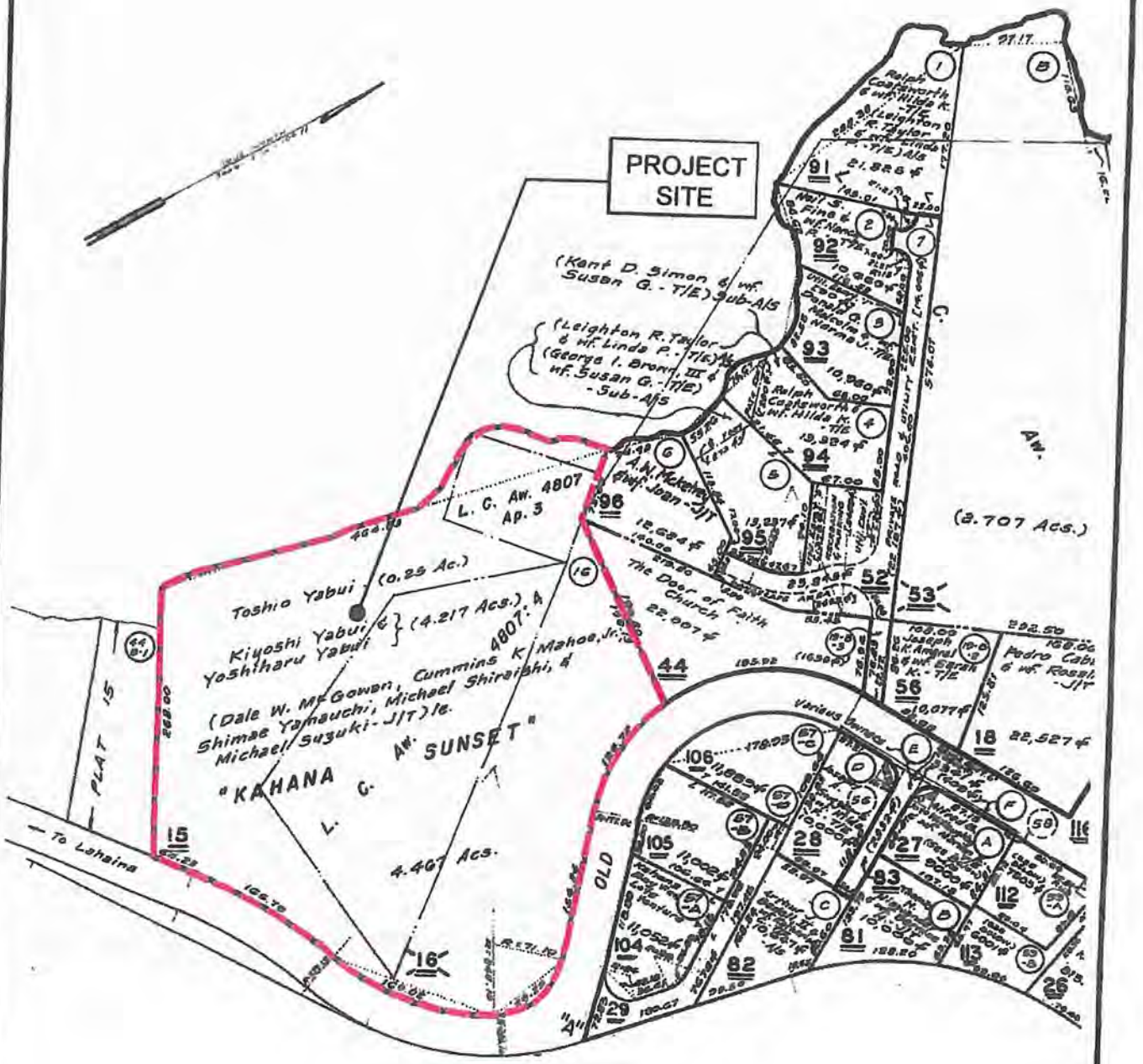
JANUARY 2014

AERIAL MAP

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

Source: Google Earth, February 2012



DEPARTMENT OF TAXATION PROPERTY TECHNICAL OFFICE TAX MAPS BRANCH STATE OF HAWAII TAX MAP		
SECOND TAXATION DISTRICT		
ZONE	SEC.	PLAT
4	3	03

FIGURE 3

Parcel 15
Not to Scale

JANUARY 2014

TAX MAP

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

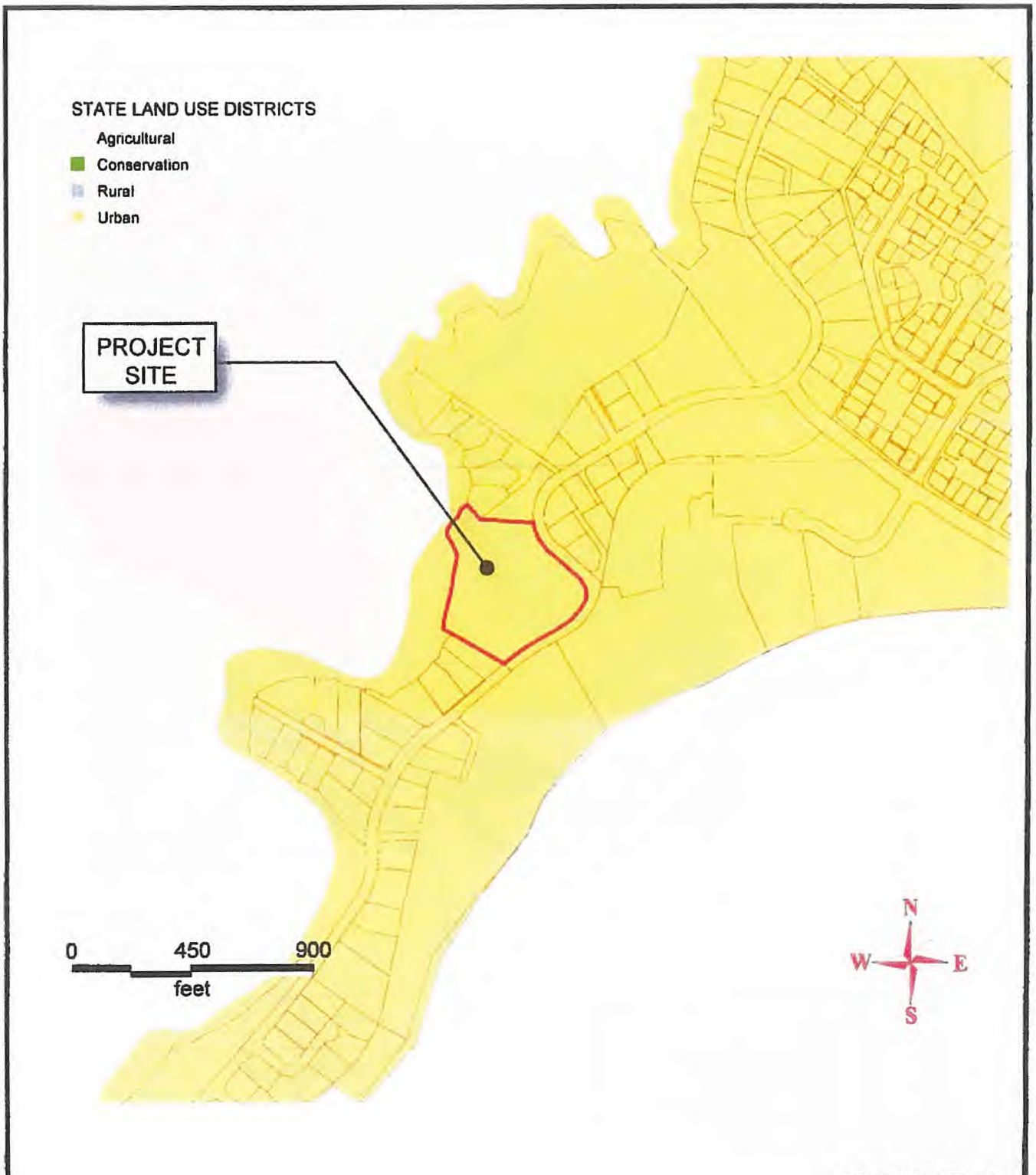


FIGURE 4

Not to Scale	JANUARY 2014
STATE LAND USE BOUNDARY MAP KAHANA SUNSET	CHRIS HART & PARTNERS, INC.

EXHIBIT 7

PROJECT SITE

LEGEND

- SF Single Family Residential
- MF Multi-Family Residential
- B Business/Commercial
- SBR Service Business/Residential
- BMF Business/Multi-Family
- HI Heavy Industrial
- LI Light Industrial
- H Hotel
- P Public/Quasi-Public
- PK Park (GC) Golf Course
- OS Open Space
- PD Project District
- AP Airport
- AG Agricultural
- R Rural
- C Conservation
- —80— Airport Special Control District

NOTE: [illegible]

FIGURE 5

Not to Scale

JANUARY 2014

WEST MAUI COMMUNITY PLAN

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

FIGURE 6

Not to Scale	JANUARY 2014
COUNTY ZONING MAP KAHANA SUNSET	CHRIS HART & PARTNERS, INC.

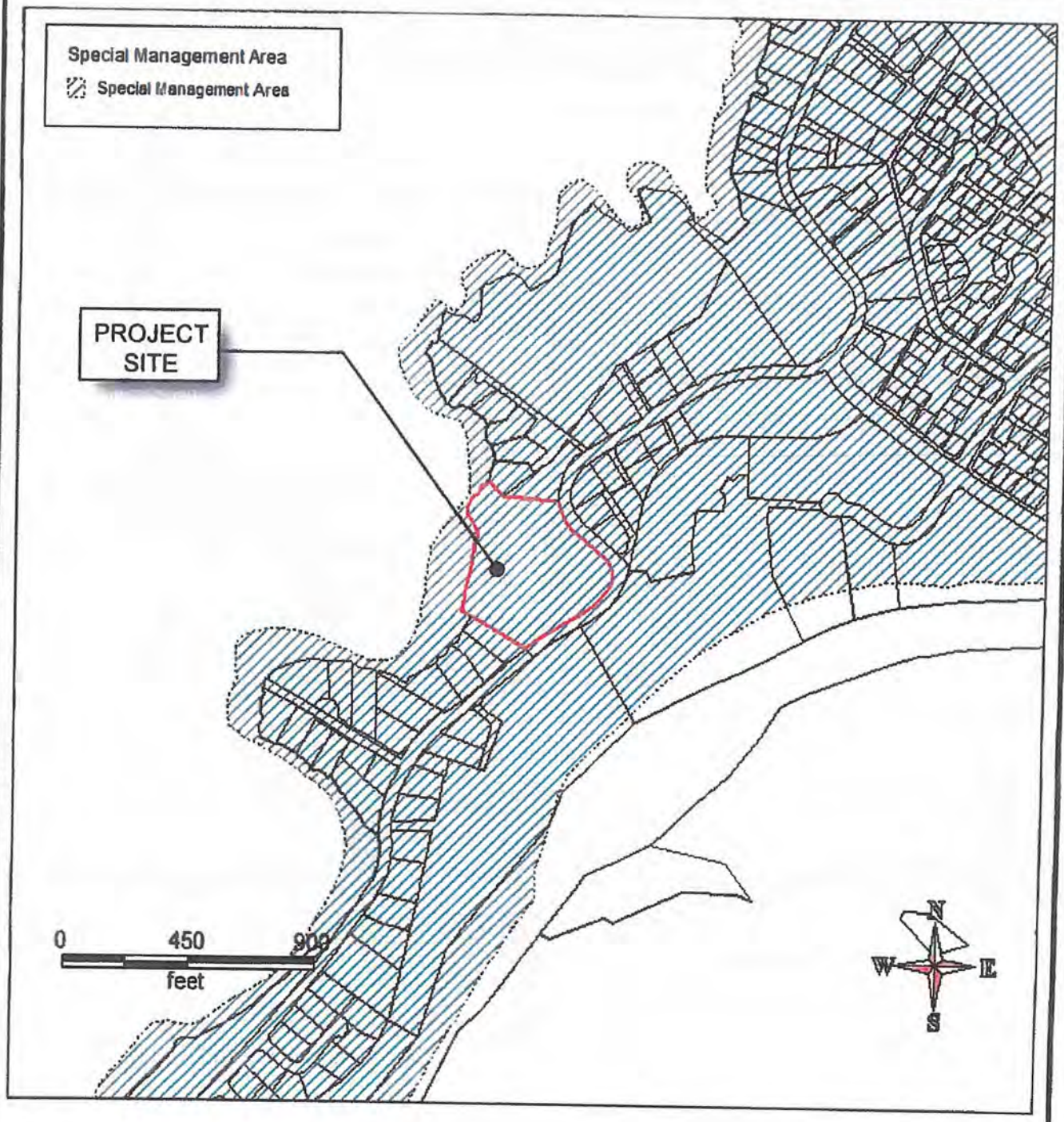


FIGURE 8

Not to Scale

JANUARY 2014

SPECIAL MANAGEMENT AREA (SMA) MAP

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones:

- **Zone A:** No BFE determined.
- **Zone AE:** BFE determined.
- **Zone AH:** Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- **Zone AO:** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- **Zone V:** Coastal flood zone with velocity hazard (wave action); no BFE determined.
- **Zone VE:** Coastal flood zone with velocity hazard (wave action); BFE determined.
- **Zone AEF:** Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- **Zone XS (X shaded):** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- **Zone X:** Areas determined to be outside the 0.2% annual chance floodplain.

OTHER FLOOD AREAS

- **Zone D:** Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	MAUI
TMK NO:	(2) 4-3-003-015
PARCEL ADDRESS:	4909 LOWER HONOAPIILANI RD LAHAINA, HI 96761
FIRM INDEX DATE:	SEPTEMBER 25, 2009
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	1500030264E
PANEL EFFECTIVE DATE:	SEPTEMBER 25, 2009

PARCEL DATA FROM:	MAY 2012
IMAGERY DATA FROM:	MAY 2005

IMPORTANT PHONE NUMBERS

County NFIP Coordinator	
County of Maui	
Francis Cerizo, CFM	(808) 270-7771
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

Disclaimer: The Department of Land and Natural Resources assumes no responsibility arising from the use of the information contained in this report. Viewers/Users are responsible for verifying the accuracy of the information and agree to indemnify the Department of Land and Natural Resources from any liability which may arise from its use.

Preliminary DFIRM Disclaimer: If this map has been identified as "PRELIMINARY" please note that it is being provided for commenting purposes only and is not to be use for official legal decisions or regulatory compliance.

FIGURE 7

Not to Scale
FEMA Flood Insurance Map

JANUARY 2014

FLOOD INSURANCE RATE MAP
KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

EXHIBIT 8

Photo 1: View from Lower Honoapiilani Road looking makai across the Kahana Sunset property..

PHOTO KEY

Photo 2 Approach to Kahana Sunset traveling north along Lower Honoapiilani Road.

Photo 3: South entrance to Kahana Sunset..

Photo 4: Lower Honoapiilani Road with Kahana Sunset on the left and Kahana Villas structures in the distance.

Photo 5: Approach to the north entrance of Kahana Sunset along Lower Honoapiilani Road.

Photo 6: North entrance to Kahana Sunset.

Photo 7: Kahana Sunset north parking lot, looking *makai*.

FIGURE 9.1

Taken on June 27, 2012 unless otherwise noted

JANUARY 2014

SITE PHOTOGRAPHS

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

EXHIBIT 9

Photo 8: Office, resident manager's unit, and laundry room.

Photo 9: Building A, 10 units.

Photo 10: Building B, 16 units.

PHOTO KEY

Photo 11: Building C, 11 units.

Photo 12: Building D, 14 units.

Photo 13: Building E, 16 units.

Photo 14: Building F, 12 units.

Photo 15: Pool and pool cabana.

Photo 16: Pool, spa, and barbeque gazebo.

Photo 17: Gazebo (left) and covered barbeque area (right). Gazebo will be relocated.

FIGURE 9.2

Taken on June 27, 2012 unless otherwise noted

JANUARY 2014

SITE PHOTOGRAPHS

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

Photo 18: Looking north along sandy beach from lanai of Building F (12/21/2011).

Photo 19: Looking north at area where the existing seawall will be removed and reconstructed further inland. The sandy beach will be widened in this area.

PHOTO KEY

Photo 20: Looking south along sandy beach fronting Building F.

Photo 21: Looking north along seawall at the drainage outfall and the Keonenui Room adjacent to Building A.

Photo 22: Existing stairway to beach that is proposed to be demolished and rebuilt approximately 30 feet inland.

Photo 23: Looking north along concrete stairway leading to lanai area of Building A (12/21/2011).

Photo 24: Looking down same stairway leading to Keonenui Room. Sandy beach visible in the distance.

FIGURE 9.3

Taken on June 27, 2012 unless otherwise noted

JANUARY 2014

SITE PHOTOGRAPHS

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

Photo 25: Looking north along 20-foot high bank fronting Building A (2/16/2013).

Photo 26: Looking south along 20-foot high bank fronting Building A.

Photo 27: Looking south from property corner along rock & concrete wall makai of Building A.

PHOTO KEY

Photo 28: Existing seawall at 36-inch drainage outfall. Outfall wil be relocated approximately 3-feet inland. Green plywood covers sink holes behind seawall.

Photo 29: Sink holes behind seawall (10/10/2011).

Photo 30: Typical sink hole behind seawall (1/10/2011).

Photo 31: Top of 15-foot deep drywell (12/21/2011). 36-inch drain line from drywell to outfall at seawall will be replaced.

Photo 32: View of central courtyard looking makai from Building D. Hedge at left foreground screens the existing 15-foot deep drywell.

FIGURE 9.4

Taken on June 27, 2012 unless otherwise noted

JANUARY 2014

SITE PHOTOGRAPHS

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

[redacted]
1968 Variance

EXHIBIT 10

Mr. Joseph Medeiros, Chairman
and Members of the Maui County
Planning Commission
Kahului, Maui, Hawaii

Re: Tax Keys 4-3-03-15 and 51 - Yabuis

Gentlemen:

Yoshiharu Yabui and Kiyoshi Yabui, owners of the above parcels of land, and Mike McCormack, of Inland Marine Development, Inc., have heretofore applied for rezoning of that certain property identified on the tax map of the Second Taxation Division as Tax Keys 4-3-03-15 and 51 from residential to H-1. Following the application a hearing thereon was held. Since our last appearance before the Planning Commission, considerable thought had gone into the matter, basing upon what is the best interest of all parties concerned, including that of the Yabuis.

We hereby now seek a variance of the said property so as to permit the owners and developers to construct an apartment based on the provisions of the proposed A-1 zoning which has not as yet been adopted.

Restrictions can be imposed as follows:

That the owners and developers would construct a two-story modified building with a 40 per cent density, plus club facilities, with one parking stall for every two units. Further, a sketch of the proposed structure shall be submitted for approval not later than February 20, 1968.

We therefore respectfully request for a variance in accordance with the terms and conditions hereinabove set forth. In the event our request is granted, we hereby forthwith withdraw our application for rezoning to H-1 zoning of the said property.

Very truly yours,

MEYER M. UEOKA

MMU:mas

EXHIBIT 10

February 20, 1968

Mr. Robert O. Ohata
Planning Director
County of Maui
Wailuku, Maui

Dear Sir:

This will acknowledge receipt of your letter dated Feb. 7, 1968 (C. C. #59) relative to the following subject matter:

Variance to Yabui to Construct Apartment with Accessory Uses.

Kindly be advised that your communication was presented to the Board of Supervisors of the County of Maui at its meeting held on Feb. 16, 1968, and the same was referred to the Public Works Committee by the said Board.

Very truly yours,

G. N. TOSHI ENOMOTO
County Clerk

Honorable Chairman & Members
of the Board of Supervisors
County of Maui

Gentlemen:

The Public Works Committee submits herewith its recommendations on the following matters; as specified: (See attachments)

PROPOSED FIRE PROTECTION:

1. DIRECT THE FIRE CHIEF & CTY ENGR - To proceed with a Feasibility and Cost Data Study to provide adequate fire protection for the Districts of Makawao; Kula; & Kihei. Detailed follow-up report shall be submitted by March 31st to the Public Works and Finance Committees, for consideration and further action. (Boy Scout Resolution attached hereto).

ACCEPT & FILE:

2. C.C. #59 Planning - Re: Notification of unanimous action taken by the Planning Commission, in approving a Variance requested by Kiyoshi Yabui et al; for Construction of an Apartment Building with Accessory Uses, at Mailepai, Lahaina.

3. C.C. #39 & #64 Engr - Re: Approval for Right-of-Entry at the Puunene Airport area; for the use of 2.3 acres by the County of Maui for Garbage Dumpsite purposes; under the terms and conditions stipulated by the State Land Dept.

FILE:

4. G.C. #53 H.F. Chapman - Submitting comments pertaining to a proposed Change in Zoning for the Yabui property in Lahaina; from Residential to H-1 Hotel District. The application for a Change in Zoning has been withdrawn.

5. C.C. #63 Fed. Coord. - Re: Extension of time approved by the Federal Government B.O.R. for the completion of Kepaniwai Gardens Increment "A"; from Feb. 29 to Dec. 31, 1968.

6. Resolution #15 - Re: Acquisition of funds for the Kaunakakai Sewerage System. (See Res. # 26 ; adopted this date).

Adoption of this report is respectfully requested.

Very truly yours,
PUBLIC WORKS COMMITTEE

LANEY MORISAKI, Vice-Chmn.

SOON OAK LEE, Chairman

BERNARD TOKUMAGA, Member

WILFRED TAVARES, Member

SUBJECT: COMMITTEE REPORT NO. 49 ADOPTED BY THE [illegible]
ON Mar. 1, 1968

In behalf of the Board of Supervisors, we hereby inform you of the adoption of the following committee report and request your attention, as may be required, to such matter(s) contained therein which is (are) of concern to your Office.

COUNTY CLERK

Item No. 2 - ACCEPT & FILE: Notification of unanimous action taken by the Planning Commission, in approving a Variance requested by Kiyoshi Yabui et al; for Construction of an Apartment Building with Accessory Uses, at Mailepai, Lahaina.

ALAN M ARAKAWA
Mayor

WILLIAM R SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director

COUNTY OF MAUI

DEPARTMENT OF PLANNING

March 25, 2013

Mr. Raymond Cabebe
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Cabebe:

SUBJECT: COMMENTS FROM THE COUNTY OF MAUI DEPARTMENT OF PLANNING (DEPARTMENT) ON THE DRAFT ENVIRONMENTAL ASSESSMENT (EA) PREPARED IN SUPPORT OF THE PROPOSED KAHANA SUNSET AOAO SHORELINE AND SITE IMPROVEMENTS, AT 4909 LOWER HONOAPIILANI ROAD, LAHAINA, MAUI, HAWAII; TMK: (2) 4-3-003:015 (CPA 2012/0003) (CIZ 2012/0007) (SM1 2012/0003) (SSV 2012/0002) (EA 2012/0002)

The Department has reviewed the Draft EA, dated "July, 2012" for the above-referenced project. Please address the following comments and include the necessary information in the Final EA on the following questions and topics:

1. As part of the Final EA process, the Department encourages the Applicant to conduct a public meeting with the neighboring properties in order to understand concerns from their neighbors regarding the: a) proposed improvements to the property; b) issues related to limited public beach access; c) issues related to the potential Change in Zoning (CIZ); d) issues related to drainage; and e) any other related issues. In addition, a public meeting will allow the Applicant to communicate to its neighbors findings from the Preliminary Drainage Report for Kahana Sunset (PDR), dated April 2012, and included as Appendix K of the Draft EA.

   - The Department and the County of Maui Department of Public Works (DPW) acknowledge the findings in the PDR. The PDR for Kahana Sunset estimates that the Kahana Sunset drainage system that terminates at the ocean includes the potential for 53.12 cubic feet per second (cfs) offsite runoff during emergency storm runoff overflow, to include 9.12 cfs from the county right-of-way along Lower Honoapiilani Road and 44 approximately cfs from Napili Villas development, upstream in the same watershed. In order to further reduce the direct runoff into the ocean at the Kahana Sunset AOAO drainage, the Department encourages the Applicant to continue discussions, where possible, with neighbors, including Napili Villas, to first, share the findings of the PDR

250 SOUTH HIGH STREET, WAILUKU, MAUI, HAWAII 96793
MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205 LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

EXHIBIT 11

(since it is a public document) as a way to educate the Napili Villas owners about the drainage volume into the ocean; second, to allow the neighbors to discuss possibilities of future drainage improvements that would minimize emergency storm runoff from the Napili Villas neighboring property into the Applicant's drainage system; and third, the Department encourages the Applicant to continue its dialog with the County of Maui DPW regarding planned drainage improvements to the county rights-of-way that currently drain runoff into the Kahana Sunset AOAO property. The outcome of such dialog is the community's better understanding of the potential solutions to minimizing direct storm water runoff into the ocean; and

- The Department also acknowledges concerns from neighboring property owners about the proposed Change in Zoning (CIZ) to H-M, which would allow for construction at Kahana Sunset to six-stories. This community meeting would also help the Applicant to understand its neighbors' concerns regarding the Applicant's proposed CIZ.

2. The Department is encouraged that the Kahana Sunset is willing to establish a formal vertical public beach access from the Lower Honoapiilani Road to the ocean along the southern setback of its property. For the Final EA, please incorporate possible solutions for stairs down to the beach by including the alternative of sharing the existing concrete stairsteps that enter the beach on the adjoining property. Since stairs at this location already exist, look at incorporating the neighboring property's stairs into the beach access design plan.

3. The Department asks that the Applicant include an analysis of the proposed new seawall's impacts on the beach profile fronting the seawall location, as depicted in Figure 10 of the Concept Master Plan. In Figure 10, the location of the new seawall at the drain outfall and north of the proposed stairs forms a convex plan-view shape, creating a lawn behind the seawall between the proposed new walkways and the drainage outlet area. The Applicant is asked to analyze the impact that this convex configuration of the seawall will have on focusing wave energy against the seawall, resulting in potential future loss of beach at this location. The Department reasons that if beach is lost due to the seawall plan-view convex configuration, as proposed, then the Applicant will be faced with a similar situation of an undermined seawall at this location However, if the proposed seawall is reconfigured in a concaved plan-view shape, eliminating the lawn area between the drain outfall and the new stairs and replacing the lawn with more sandy beach, the Department reasons that a concaved-plan-view configuration will further dissipate wave energy at this location, which in turn will build a sandy beach, preserving a beach and further protecting the seawall from direct wave energy. The proposed convex

plan-view seawall configuration in Figure 10 will focus wave energy on the seawall, which, in turn, will remove sand at the beach in front of the proposed seawall, leading to potential further erosion and requirement for further seawall protection. Please examine this suggested change in seawall configuration to a concaved seawall plan-view configuration in Figure 10 as part of the Final EA.

Thank you for your cooperation. If additional clarification is required, please contact Coastal Resources Planner James Buika by email at james.buika@mauicounty.gov or by phone at (808) 270-6271.

Sincerely,

WILLIAM SPENCE
Planning Director

xc: Michele Chouteau McLean, Deputy Planning Director (PDF)
Clayton I. Yoshida, AICP, Planning Program Administrator (PDF)
Joseph W. Alueta, Acting Planning Program Administrator (PDF)
James A. Buika, Coastal Resources Planner (PDF)
Tara Miller, University of Hawaii Sea Grant Extension Program (PDF)
Maui Planning Commissioners
Rowena Dagdag-Andaya, Deputy Public Works Director (PDF)
Samuel J. Lemmo, Department of Land and Natural Resources-Office of Conservation and Coastal Lands (PDF)
Daniel L. Ornellas, Department of Land and Natural Resources-Land Division, Maui (PDF)
Project File
General File

WRS:JAB:cr
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CHRIS HART & PARTNERS INC
Landscape Architecture
City & Regional Planning

May 20, 2013

Mr. William Spence, Director
Planning Department
250 South High Street
Wailuku, Hawaii 96793

Attention: Mr. James Buika

Dear Mr. Spence:

RE: Draft Environmental Assessment in support of Applications for Special Management Area (SMA) Use Permit, Shoreline Setback Variance (SSV), Community Plan Amendment (CPA) and Change in Zoning (CIZ) for the Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Alaeloa, Lahaina, Maui, Hawaii.

Thank you for your March 25, 2013 letter on the Draft Environmental Assessment (EA) for subject project. We offer the following responses to the items as enumerated in your letter:

1. Kahana Sunset will invite property owners within 500 feet to an on-site meeting to share the project plans and answer questions. Kahana Sunset will provide information on the drainage improvements, the relocation of the seawall, the beach access path, and the change in zoning from residential to hotel.
2. Kahana Sunset appreciates the Department's acknowledgment of the effort that has gone into the proposed establishment of a public beach access along Kahana Sunset's south property line. It is our expectation that the neighboring property owner will not be supportive of the access path and, that the legality of the neighbor's stairs is questionable. As such, Kahana Sunset would like to pursue designing and constructing its own direct path to the beach. It is our expectation that this would expedite the completion of the process and simplify any future repair and maintenance issues.
3. The project's civil and coastal engineer, Dr. Marc Siah, will be providing a thorough analysis of alternative design configurations. Please note, during the analysis and design phase of the project it was determined by both the soils and structural engineers that the undermining of the existing seawall was due to its structural design and not the wall's convex configuration. As noted by structural

1139 Maker Street, Wailuku, Maui, HI 96793-1711 * Ph 808.242.1955 * Fx 808.242.1965
www.chrisharts.com

engineer Dr. Kiumars Siah, the existing seawall is a "gravity wall without a footing" which eventually led to its failure (Maui Planning Commission, February 26, 2013). According to soils engineer Paul Weidig, "the concrete and stones placed in the cavities beneath the walls had been founded on sand that was undermined by sea wave action" causing the sinkholes behind the wall (*Geoanalytical Report*, Weidig, March 2006, p. 3). Therefore, it is anticipated that Dr. Siah's analysis will indicate that failure of the existing wall has less to do with its configuration and more to do with its structural design.

If you have any further questions, please call Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Land Planner

Enclosures
c: Mr. Keith Meyer
Ms. Jacqueline Scheibel
Ms. Karen Dedman
Ms. Karen Krenz
Mr. Ken Gadicke

~~APPENDIX M~~

Maui Planning Commission Comments & Response

EXHIBIT 12

ALAN M ARAKAWA
Mayor

WILLIAM R SPENCE
Director

MICHELE CHOUTEAU McLEAN
Deputy Director

COUNTY OF MAUI

DEPARTMENT OF PLANNING

March 25, 2013

Mr. Raymond Cabebe
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Hawaii 96793

Dear Mr. Cabebe:

SUBJECT: COMMENTS FROM THE MAUI PLANNING COMMISSION (COMMISSION) ON THE DRAFT ENVIRONMENTAL ASSESSMENT (EA) PREPARED IN SUPPORT OF THE PROPOSED KAHANA SUNSET AOAO SHORELINE & SITE IMPROVEMENTS, LOCATED AT 4909 LOWER HONOAPIILANI ROAD, LAHAINA, MAUI, HAWAII; TMK: (2) 4-3-003:015 (CPA 2012/0003) (CIZ 2012/0007) (SM1 2012/0003) (SSV 2012/0002) (EA 2012/0002)

At its regular meeting on February 26, 2013, the Commission reviewed the Draft EA, dated "July, 2012" for the above referenced project. Based upon those discussions and questions to the Applicant and Applicant's representatives, the Commission's nine (9) requests for additional information are listed below. Please include information on the following questions and topics in the Final EA:

1) Explore the possibility of designating public beach parking;

2) Explore the origins and amounts of water volume that are released directly into the ocean through the drain outfall;

3) For the water being released into the ocean, attempt to document any existing upstream treatment of water for anticipated pollution;

4) Explore if there exists a lower density zoning that fits the existing use of the property that will further limit the expansion, especially vertically, of the project In other words, as part of the project, explore possible lesser zoning changes than the proposed H-M Zoning which allows for six-story tall hotel structures, as the appropriate zoning change. In addition, consider a three-story height limit as part of the Special Management Area Use Permit and Change in Zoning (CIZ) as a condition of project approval;

5) Confirm the parking requirements for the proposed CIZ to ensure parking requirement compliance with any CIZ;

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MAIN LINE (808) 270-7735; FACSIMILE (808) 270-7634
CURRENT DIVISION (808) 270-8205; LONG RANGE DIVISION (808) 270-7214; ZONING DIVISION (808) 270-7253

6) Regarding the acknowledged encroachments on to state lands, explain the existing encroachments and the process planned to eliminate the existing encroachments. Conduct a resurvey of the property at the encroachments, if necessary, to fully understand the limits of the encroachments;

7) Consider allowing the public to use the relocated shower as a public amenity;

8) Verify that the project alternatives comply with County ordinance with respect to down lighting. Ordinance No. 3430, Bill No. 85, "A Bill for an Ordinance Amending Section 2.40.030, Repealing Chapter 12.17, and Amending Title 20, Maui County Code, Relating to Outdoor Lighting Standards" dated January 25, 2007; and

9) In the Final EA, please flag the responses and changes created from the Draft EA to the Final EA, for easier reading and review.

Thank you for your cooperation. If additional clarification is required, please contact Coastal Resources Planner James Buika at james.buika@mauicounty.gov or at (808)270-6271.

Sincerely,

WILLIAM SPENCE
Planning Director

xc: Michele Chouteau McLean, Deputy Planning Director (PDF)
Clayton I. Yoshida, AICP, Planning Program Administrator (PDF)
Joseph W. Alueta, Acting Planning Program Administrator (PDF)
James A. Buika, Coastal Resources Planner (PDF)
Tara Miller, University of Hawaii Sea Grant Extension Program (PDF)
Maui Planning Commissioners
Rowena Dagdag-Andaya, Deputy Public Works Director (PDF)
Samuel J. Lemmo, Department of Land and Natural Resources-Office of Conservation and Coastal Lands (PDF)
Daniel L. Ornellas, Department of Land and Natural Resources-Land Division, Maui (PDF)
Project File
General File

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CHRIS HART & PARTNERS, INC
Landscape Architecture
City & Regional Planning

May 20, 2013

Mr. William Spence, Director
Planning Department
250 South High Street
Wailuku, Hawaii 96793

Attention: Mr. James Buika

Dear Mr. Spence:

RE: Draft Environmental Assessment in support of Applications for Special Management Area (SMA) Use Permit, Shoreline Setback Variance (SSV), Community Plan Amendment (CPA) and Change in Zoning (CIZ) for the Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Alaeloa, Lahaina, Maui, Hawaii.

Thank you for your March 25, 2013 letter based on discussions on the Draft Environmental Assessment (EA) for subject project at the regular meeting of the Maui Planning Commission on February 26, 2013. We offer the following responses to the items as enumerated in your letter:

1. Kahana Sunset has explored the possibility of designating public beach parking on its property. However, because the entrance to the proposed beach access is at Lower Honoapiilani Road, parking within the Kahana Sunset property would not be logistically practical. Existing parking stalls are approximately sixteen feet lower than the elevation at the road and beachgoers would not likely to be inclined to walk back up to the road to the beach access. In addition, at 1.2 stalls per unit, Kahana Sunset does not have any excess stalls to dedicate to beach parking. There is an approximately ten-foot wide shoulder on the mauka side of Lower Honoapiilani Road that would allow for safe on-street parking for several cars. This situation would be similar to Napili Bay to the north and other areas where beach access is provided with only on-street parking available.

   NOTE: Maui County Code (MCC) Chapter 10.48.040 Section B.27 prohibits parking "on the makai side of Lower Honoapiilani Road from its intersection with Kaanapali Shores Drive to Honokowai to its intersection with Kapalua Place in Kapalua" (including the Kahana Sunset frontage). Amending this section of the county code would provide a resolution to the beach access

115 N. Market Street, Wailuku, Maui, Hawaii 96793 1717 • Ph 808 242-1955 • Fax 808 242-1956
www.chpmaui.com

parking issue. Future development of the vacant parcel across Lower Honoapiilani Road may also provide an opportunity to acquire a more appropriate location for off-street beach access parking.

2. Kahana Sunset will have a licensed engineer prepare a report to illustrate and document the upstream origins and estimated flows of stormwater.
3. We are aware of some upstream sources that may be equipped with filtering systems, however their effectiveness is unknown and there are no known treatment systems. As noted in the Draft EA, Kahana Sunset will be installing filters at onsite drainage inlets to minimize the flow of pollutants into the ocean.
4. The following table compares the possible zoning designations beginning with the lowest density of A-1 Apartment District to the highest density of H-2 Hotel District.

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

Table 1
Underlined: Meets regulation.

As shown above, the lowest density zoning designation that meets all of the criteria for the zoning district is H-M Hotel District.

NOTE: The Applicant has indicated that they are open to a condition of Zoning establishing a three-story height limit, in line with the existing building configurations. It should also be noted that no expansion of the existing residential component of the project is proposed; and that any future proposal would trigger the requirement for an SMA Major Permit.

5. There are no additional parking requirements triggered by the proposed action. Kahana Sunset complies with current parking requirements in the context of the variance granted in 1968 ("one parking stall for every two units"). As noted in Table No. 1 above, Kahana Sunset's existing configuration will also comply with the requirements of the proposed H-M Hotel District zoning.

6. An application for shoreline certification, based on a survey conducted by Valencia Land Surveying on July 1, 2011, was accepted for processing by the Department of Land & Natural Resources (DLNR) on October 23, 2011. This survey identified three areas of encroachment totaling approximately 609 square feet. On December 5, 2011, the Survey Division of the State Department of Accounting and General Services (DAGS) revised the location of the shoreline which resulted in approximately 3,195 square feet of encroachments. The proposed project will remove approximately 621 square feet of the alleged encroachment leaving approximately 2,574 square feet to be resolved by obtaining an easement from the State. Be advised that these are preliminary numbers and are subject to review and approval by the State.

7. Kahana Sunset has considered the possibility of allowing the public to use the outdoor shower that will be relocated further inland. The shower is proposed to be located approximately 200 feet from the public beach access point which would not allow for convenient access. As such, and due to security and liability concerns, Kahana Sunset does not wish to allow public access to the outdoor shower. Kahana Sunset is proposing to dedicate access to the beach, through its property, at Keonenui Bay where none currently exists, for recreational purposes. The beach access path will be approximately 250 feet long with an area of approximately 1,250 square feet, and will fulfill one of the primary objectives of Hawaii Revised Statutes (HRS) 205A, "providing and managing adequate public access ... to and along shorelines with recreational value."

   NOTE: Under the current proposal Kahana Sunset is providing a Public Beach Access path with significant functional and monetary value to the community.

Tax Assessed Value of Parcel	Total Parcel SQFT	RPT Parcel Value per SQFT	Access Path SQFT	RPT Value of Access Path
$ 30,121,300.00	194,583	$ 154.80	1,250	$ 193,500.00

8. Wherever outdoor lighting is needed or required, Kahana Sunset will comply with Maui County Code (MCC) Chapter 20.35 regarding the proper shielding of outdoor lighting fixtures.

9. Any revisions to the Draft EA will be highlighted in the Final EA as requested.

If you have any further questions, please call Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Land Planner

Enclosures
c: Mr. Keith Meyer
Ms. Jacqueline Scheibel
Ms. Karen Dedman
Ms. Karen Krenz
Mr. Ken Gadicke

AGENCY TRANSMITTAL RESPONSE e-FORM

FOR DEPARTMENT OF PLANNING, COUNTY OF MAUI

October 10, 2012

AGENCY NAME	Department of Environmental Mgmt.	PHONE	270-8230
PROJECT: APPLICANT: PERMIT NO: TMK: STREET ADDRESS: PROJECT DESCRIPTION: SECURITY CODE:	Kahana Sunset Shoreline and Site Improvements Kahana Sunset AOAO EA 2012/0002,SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012-0007 2-4-3-003-015 4909 Lower Honoapiilani Road, Lahaina, Maui, Hawaii Enhance public safety, create long-term solution to stabilize the bank at the shoreline of Keonenui Bay to prevent future erosion and potential undermining of neighboring shoreline protection structures; prevent earthen soils from erodingand causing siltation of coastal waters. Portions of the existing seawall and entire stair structure will be demolished. A new replacement retaining wall with steps to the beach is proposed to be constructed mauka of the proposed certified shoreline		

☐ COMMENTS/RECOMMENDATIONS ☒ NO COMMENTS

WASTEWATER RECLAMATION DIVISION COMMENTS

☒ COMMENTS/RECOMMENDATIONS ☐ NO COMMENTS

SOLID WASTE DIVISION COMMENTS

Demolition waste should be disposed at the Maui Demolition and Construction Landfill in Maalaea.

EXHIBIT 13

CHRIS HART
Landscape Architecture
City & Regional Planning

January 9, 2013

Mr. Michael M. Miyamoto, Deputy Director
Department of Environmental Management
2200 Main Street, Suite 100
Wailuku, Hawaii 96793

Dear Mr. Miyamoto:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMT 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your November 1, 2012 response to the Draft Environmental Assessment (EA) for the subject project.

The Final EA will note that any demolition waste will be disposed at the Maui Demolition and Construction Landfill at Maalaea.

If you have any further questions, please contact Mr. Raymond Cabebe, Associate Land Planner, of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEHrrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Kreuz

EXHIBIT 13

www.chrishart.com

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

ALAN M. ARAKAWA
Mayor

JO-ANN T. RIDAO
Director

JAN SHISHIDO
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX 270-7165 • EMAIL director.hhc@mauicounty.gov

DEPT. OF PLANNING
COUNTY OF MAUI
RECEIVED
'12 OCT 10 P3:19

Date: October 8, 2012

To: **Clayton I. Yoshida** Planning Program Administrator, Dept. of Planning

From: Wayde Oshiro, Housing Administrator Housing and Human Concerns

Subject: **Preliminary Planning Review**
Applicability to Residential Workforce Housing Policy
Chapter 2.96, MCC; effective 12/5/2006

Project Name: **Kahana Sunset Shoreline and Site Improvements**
Applicant: **Kahana Sunset AOAO**
Subject I.D.: **EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003.**
TMK: **(2) 4-3-003:015**
Street Address: **4909 Lower Honoapiilani Road, Lahaina, Maui, Hawaii**
Determination:

☑ **Not-Applicable**
Does not meet applicability as set forth in 2.96.030(A), MCC

☐ **Applicable**
☐ **No Exemptions**

☐ **Exemptions: (2.96.030)**

'12 OCT 10 P3:19

☐1. An executed affordable housing agreement, currently in effect and approved prior to the effective date of chapter.

☐2. A development subject to a change in zoning condition that requires affordable or residential workforce housing.

☐3. A subdivision granted preliminary subdivision approval prior to the effective date of this chapter. (12/5/2006)

☐4. A building permit application submitted prior to the effective date of this chapter.

☐5. A family subdivision, for immediate family members, as described in sections 18.20.280(B)(1) and (B)(2) of this code.

☐6. A development by a government entity, 201H, community land trust, or an affordable housing project with more than the residential workforce housing units, in-lieu fees, or in-lieu land required by section 2.96.040, as approved by the director.

Additional Comments: ☐ **See comments below** ☐ **See Attachment(s)**
☑ **We have NO comment**

EXHIBIT 14

Reviewed By: Wayde T. Oshiro
Wayde T. Oshiro

10/08/2012
Date

CHRIS HART

January 9, 2013

Mr. Wade Oshiro, Housing Administrator
Department of Housing and Human Concerns
200 South High Street
Wailuku, HI 96793

Dear Mr. Oshiro:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 8, 2012 memorandum in response to the Draft Environmental Assessment (EA) for the subject project. The applicant acknowledges your determination that Chapter 2.98, Maui County Code, is not applicable to the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEHart
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

EXHIBIT 14

12 NOV 21 A9:53

ALAN M. ARAKAWA
Mayor

DAVID C. GOODE
Director

ROWENA M. DAGDAG ANDAYA
Deputy Director

Telephone (808) 270 7845
Fax (808) 270 7955

DEPT OF PLANNING
COUNTY OF MAUI
RECEIVED

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

November 19, 2012

MEMO TO: WILLIAM R. SPENCE, PLANNING DIRECTOR

FROM: DAVID C. GOODE, DIRECTOR OF PUBLIC WORKS

SUBJECT: **HAWAII REVISED STATUTES, CHAPTER 343 ENVIRONMENTAL ASSESSMENT IN SUPPORT OF APPLICATIONS FOR SPECIAL MANAGEMENT AREA USE PERMIT, SHORELINE SETBACK VARIANCE, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING FOR KAHANA SUNSET SHORELINE AND SITE IMPROVEMENTS; TMK: (2) 4-3-003:015**
EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012/0007

We reviewed the subject application and have the following comments:

Comments from the Highways Division:

1. The Department encourages the applicant to explore the design of the "Hayashi Seawall" where the slope of the hardened surface follows the natural slope of sandy beaches, limiting vertical retaining walls to as far inland and away from the shoreline as possible.

2. The drainage consultant makes the following statement: "Since the existing storm drain inlets in Lower Honoapiilani Road right-of-way are not well maintained and in poor conditions, not all runoff generated on the roadway is collected and conveyed into the system." Figure 2-3 of the Preliminary Drainage Report for Kahana Sunset shows the existing drainage site plan. Of the two existing storm drains on Lower Honoapiilani Road, one serves the Kahana Villas detention basin. This storm drain does not have an inlet on Lower Honoapiilani Road. The other inlet is on the mauka shoulder

EXHIBIT 15

of Lower Honoapiilani Road in an area where storm water flow is not at the low point of Lower Honoapiilani Road at Kahana Sunset. Flood waters that are captured by the drainage inlet flows to the low point and into Kahana Sunset property.

3. The consultant makes the following recommendation on the drainage situation on Lower Honoapiilani Road: Barricading the length of property line along the roadway with sand bags or installing a new intercepting ditch along the roadway shoulder parallel to the property line, are two temporary schemes for protecting the development from localized erosion due to unimpeded stray overland flow of roadway storm runoff into the property.

4. Should a sand bag barricade be placed along the Kahana Sunset property line, drainage runoff would have no where to go, except to pond at the low point of Lower Honoapiilani Road in front of the Kahana Sunset property. If the pond of water is breached, it could send a large volume of water into the Kahana Sunset property, causing more damage than the normal overland flows.

5. Installing an intercepting ditch would necessitate having somewhere for the ditch to empty in to. The ditch would aggregate the overland flow into a bigger flow. This ditch water would need to enter the Kahana Sunset property as the Kahana Sunset property is lower than property that surrounds them.

6. While the overland sheet flow of water from the road may be unwelcome by the Kahana Sunset, the alternatives they propose may be detrimental for the condominium facility.

If you have any questions regarding this memorandum, please call Rowena M. Dagdag-Andaya at 270-7845.

DCG:RMDA:ls
xc: Highways Division
Engineering Division
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ALAN M. ARAKAWA
Mayor

DAVID C. GOODE
Director

ROWENA M. DAGDAG-ANDAYA
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

GLEN A. UENO, P.E., Interim
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

RECEIVED
APR 04 2013
CHRIS HART & PARTNERS, INC.
Landscape Architecture and Planning

CC: Raymond 09/143

April 3, 2013

Mr. Jordan E. Hart, President
Chris Hart & Partners, Inc.
115 North Market Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Hart:

SUBJECT: HAWAII REVISED STATUTES, CHAPTER 343 ENVIRONMENTAL ASSESSMENT IN SUPPORT OF APPLICATIONS FOR SPECIAL MANAGEMENT AREA USE PERMIT, SHORELINE SETBACK VARIANCE, COMMUNITY PLAN AMENDMENT AND CHANGE IN ZONING FOR KAHANA SUNSET SHORELINE AND SITE IMPROVEMENTS; TMK: (2) 4-3-003:015, LAHAINA, MAUI, HAWAII EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012/0007

Thank you for meeting with my staff on January 15, 2013, and for your follow-up letter dated January 31, 2013.

We acknowledge that the temporary mitigation measures involving the use of a sand bag barricade or an intercepting ditch in the Preliminary Drainage Report and on Page 26 of the Draft Environmental Assessment are not included in the project scope. These measures are for consideration purposes only.

We have no additional comments regarding the subject Draft Environmental Assessment.

Very truly yours,

ROWENA M. DAGDAG-ANDAYA
Deputy Director of Public Works

EXHIBIT 15

RMDA:jso
s:\rowena\jordan hart_kahana sunset shoreline and site improvements

CHRIS HART & PARTNERS, INC.
Landscape Architecture
Environmental Planning

January 31, 2013

Mr. David C. Goode, Director
Department of Public Works
250 South High Street
Wailuku, HI 96793

Attention: Ms. Rowena M. Dagdag-Andaya

Dear Mr. Goode:

RE: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002)(SM1 2012-0003)(SSV 2012-0002)(CPA 2012-0003)(CIZ 2012-0007)

Thank you for your November 19, 2012 memorandum and for allowing your staff to meet with us on January 15, 2013 in response to the Draft Environmental Assessment (EA) for the subject project. We offer the following responses to your comments as enumerated in your memorandum:

1. The "Hayashi Seawall" concept was explored, however the coastal, civil and structural engineers concluded that this particular design would not be appropriate for this project due to existing structures and infrastructure, and the proximity to the shoreline and ocean.

2. through 6. We acknowledge your comments on storm water runoff on, and along Lower Honoapiilani Road and your concerns regarding the redirection of runoff. As discussed during our meeting, temporary mitigation measures suggested in the Preliminary Drainage Report are for Kahana Sunset's consideration purposes only, and are **not** included in project scope, which is specifically outlined in the application report, **Section I.F.** "Description of Proposed Action (Preferred Alternative)".

The only drainage improvements proposed, as part of the above referenced applications, are to portions of the existing **onsite** system downstream of Drywell No. 1, as referenced in **Section I.F.** "Description of Proposed Action (Preferred Alternative)".

Proposed drainage improvements outlined in the project's "Preferred Alternative" are as follows:

> ***Drainline.*** *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.*

In conclusion, as discussed during our meeting, we respectfully request comment on the scope of drainage improvements as proposed in the above referenced application report, specifically those drainage improvements outlined in **Section I.F.** "Description of Proposed Action (Preferred Alternative)".

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

2013-01-31

Jordan E. Hart
President
Land Planner

JEH:rrc
attachment
c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

AGENCY NAME	Dept. of Transportation	PHONE	

Agency Transmittal – (EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012/0007)
September 27, 2012
Page 3

(County of Maui)

COMMENT/RECOMMENDATION BOX			
Signed:		Dated:	
Print Name:		Title:	
NO COMMENT			
Signed:	Jim Oster	Dated:	10-2-12
Print Name:	JIM OSTER	Title:	ENGINEER

12 OCT -3 A9:23

EXHIBIT 16

CHRIS HART

January 9, 2013

Mr. Jim Oster
Department of Transportation
2145 Kaohu Street Ste. 102
Wailuku, HI 96793

Dear Mr. Oster:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 2, 2012 No Comment response to the Draft Environmental Assessment (EA) for the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

EXHIBIT 16

ALAN M. ARAKAWA
Mayor

DAVID TAYLOR, P.E.
Director

PAUL J. MEYER
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

'12 NOV 16 A7:38

November 7, 2012
Mr. James Bulka, Staff Planner
Department of Planning
County of Maui
250 South High Street
Wailuku HI 96793

Re: I.D.: EA 2012/0002; SM 1 2012/0003; SSV 2012/0002; CPA 2012/0003; CIZ 2012/0007
TMK: (2) 4-3-003:015
Project Name: Kahana Sunset Shoreline & Site Improvements

Dear Mr. Bulka:

Thank you for the opportunity to comment on these applications.

Source Availability System Infrastructure and Consumption
The project area is served by the Lahaina system.An eight inch waterline runs across the street parallel to a twelve-inch waterline bordering the property along Lower Honoapiilani Road. Fire protection is provided by two DWS fire hydrants adjoining the parcel. The parcel is served by a 1-1/2 inch water meter. Average consumption in 2011 for this property was approximately 20,231 gallons per day. The project is not anticipated to generate additional demand on the DWS system.

Conservation
We are pleased to note that the document states that drought tolerant Hawaii native trees, shrubs and groundcover will be used wherever possible and the plants will be watered using an automatic irrigation controller with rain-sensors.
We suggest that all irrigation be scheduled between 7 PM and 10 AM, no more than 2 days per week once plants are established.

Pollution Prevention
In order to protect ground and surface water sources, Best Management Practices (BMPs) designed to minimize infiltration and runoff from construction should be implemented during construction. In addition to the required BMPs, the mitigation measures below should be included in the final EA:

- 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.

Should you have any questions, please contact Staff Planner Marti Buckner at our Water Resources and Planning Division at 463-3104, or at marti.buckner@mauicounty.gov.

Sincerely,

Dave Taylor, P.E., Director
mlb

cc: engineering division

CHRIS HART
& PARTNERS
Landscape Architecture
Civil/Regional Planning

January 9, 2013

Mr. David Taylor, Director
Department of Water Supply
200 South High Street
Wailuku, HI 96793

Attention: Ms. Marti Buckner

Dear Mr. Taylor:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your November 7, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project.

The Final EA will note your suggestion to schedule irrigation between 7 PM and 10 AM after new plantings are established. The Best Management Practices (BMP) recommended to address pollution prevention will be implemented and incorporated in the Final EA.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment
c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Kreiz

Clayton Yoshida - Kahana Sunset Shoreline and Site Improvements

From: Paul Haake
To: Clayton Yoshida
Date: 10/26/2012 2:29 PM
Subject: Kahana Sunset Shoreline and Site Improvements

Hi Clayton,

Our department provides the following response for this request.

Thanks.

****

October 26, 2012

Clayton I. Yoshida
Planning Program Administrator
Department of Planning
County of Maui

Re: Kahana Sunset Shoreline and Site Improvements
EA 2012/0002; SM1 2012/0003; SSV 2012/0002; CPA 2012/0003;
CIZ 2012/0007
4909 Lower Honoapiilani Road, Lahaina, Maui, HI
TMK: (2) 4-3-003: 015

Dear Clayton:

Thank for the allowing the Department of Fire and Public Safety the opportunity to comment on the above subject. At this time, our office has no specific comments or objections in regards to this subject.

If there are any questions or comments, please feel free to contact me at 244-9161 ext. 23. Thank you for your attention to fire prevention and public safety.

Sincerely,
Paul Haake
Captain, Fire Prevention Bureau
Dept. of Fire & Public Safety
Maui County

313 Manea Place Wailuku, HI 96793
244-9161 ext. 23
244-1363 fax

EXHIBIT B

CHRIS HART
& ASSOCIATES
Landscape Architecture
City & Regional Planning

January 9, 2013

Captain Paul Haake
Department of Fire and Public Safety
313 Manea Place
Wailuku, HI 96793

Dear Capt. Haake:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 26, 2012 email in response to the Draft Environmental Assessment (EA) for the subject project. We acknowledge that your department has no specific comments or objections in regards to the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEHart:c
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

ALAN M. ARAKAWA
MAYOR

OUR REFERENCE

YOUR REFERENCE

POLICE DEPARTMENT

COUNTY OF MAUI

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

GARY A. YABUTA
CHIEF OF POLICE

CLAYTON N.Y.W. TOM
DEPUTY CHIEF OF POLICE

October 19, 2012

'12 OCT 23 P1:47

MEMORANDUM

TO : CLAYTON I. YOSHIDA, AICP
DEPARTMENT OF PLANNING

FROM : GARY A. YABUTA, CHIEF OF POLICE

SUBJECT : PERMIT NO. : CIZ 2012/0007
TMK : (2) 4-3-003:015
Project Name : Kahana Sunset Shoreline and Site Improvements
Applicant : Kahana Sunset AOAO

_x_ No recommendation or comment to offer.

___ Refer to enclosed comments and/or recommendations.

Thank you for giving us the opportunity to comment on this project.

Assistant Chief Victor Ramos
For: GARY A. YABUTA
Chief of Police

EXHIBIT 19

CHRIS HART
& Partners
Landscape Architecture
Civil & Regional Planning

January 9, 2013

Assistant Chief Victor K. Ramos
Police Department
55 Mahalani Street
Wailuku, HI 96793

Dear Asst. Chief Ramos:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 19, 2012 memorandum in response to the Draft Environmental Assessment (EA) for the subject project. We acknowledge that your department has no recommendation or comment to offer on the project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
COMPTROLLER

MARIA E. ZIELINSKI
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

Response refer to:
Ma-219(12)

DEPT. OF PLANNING
COUNTY OF MAUI
OCT - 4 2012
RECEIVED

October 2, 2012

MEMORANDUM

TO: William R. Spence, Director
Department of Planning, County of Maui

ATTN: Clayton I. Yoshida, AICP
Planning Program Administrator

FROM: Reid K. Siarot, State Land Surveyor
DAGS, Survey Division

SUBJECT: Kahana Sunset Shoreline and Site Improvements
Applicant: Kahana Sunset AOAO
Permit No.: EA 2012/0002, SM1 2012/0003, SSV 2012/0002,
CPA 2012/0003, CIZ 2012/0007
TMK: 4-3-03: 15

The subject proposal has been reviewed and confirmed that no Government Survey Triangulation Stations or Benchmarks are affected. Survey has no objections to the proposed project.

Should you have any questions, please call me at 586-0390.

EXHIBIT 20

CHRIS HART
& PARTNERS
Planning · Architecture
Urban & Regional Planning

January 9, 2013

Mr. Reid K. Siarot, State Land Surveyor
Survey Division
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810-0119

Dear Mr. Siarot:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 2, 2012 memorandum in response to the Draft Environmental Assessment (EA) for the subject project.

We acknowledge your statement that no Government Survey Triangulation Stations or Benchmarks are affect by this project and that the Survey Division does not have any objections to the proposed project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR
RICHARD C. LIM
DIRECTOR
MARY ALICE EVANS
DEPUTY DIRECTOR
JESSE K. SOUKI
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone (808) 587-2846
Fax (808) 587-2824

Ref. No. P-13757

'12 OCT 25 PM 2:52

October 23, 2012

Mr. Clayton Yoshida, Planning Program Administrator
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Yoshida:

Subject: Draft Environmental Assessment for Kahana Sunset Shoreline and Site Improvements, Tax Map Key: (2)-4-3-003: 015, Maui, Hawaii

Thank you for the opportunity to provide comments on the Draft Environmental Assessment (Draft EA) (EA 2012/0002), for the proposed Kahana Sunset Shoreline and Site Improvements, Tax Map Key: (2)-4-3-003: 015, Maui, Hawaii.

The Office of Planning has reviewed the subject Draft EA and has the following comments to offer:

1. According to the information provided by the Draft EA, on page 6, Building "A" is now approximately 8 feet and Building "F" is approximately 10 feet from the assumed shoreline while Building "A" was 15 feet and Building "F" was 50 feet from the shoreline when the existing apartment-condominium was constructed in 1971. The Final EA should clarify the "assumed shoreline," pursuant to the definition of shoreline in Hawaii Revised Statutes §205A-1.

2. Given that the shoreline erosion in front of the subject property in past decades has caused threats upon public safety and resulted in emergency repairs of the seawall, the Final EA should assess and explain why reconstruction of the seawall, which will be retreated as far back as 30 feet mauka from the proposed certified shoreline (on page 53, retreat of approximately 10 to 30 feet from the existing seawall location), is a long-term solution that will stabilize the bank at the shoreline of Keonenui Bay as stated by the Draft EA on page 8. The Final EA should consider climate change adaptation priority guidelines enacted by Act 286, Session Laws of Hawaii 2012, in order to meet the objectives and policies of reducing hazard to life and property from coastal hazards, including storm waves and shoreline erosion.

EXHIBIT 21

3. The Draft EA, on page 14, described that all of existing Buildings "A" and "F", and portions of Building "B" are within the shoreline setback area, pursuant to §12-203-4, Shoreline Rules for the Maui Planning Commission. The Final EA should discuss whether the proposed zoning change from R-3 Residential to H-M (Hotel-Multi-Family) Hotel District, on page 12, will result in expanded or new structures within the area that has been heavily threatened by coastal erosion.

4. On page 16 of the Draft EA, the subject property is located along Keonenui Bay where the sandy beach has its greatest width fronting the Kahana Sunset. On page 51, "Kahana Sunset is continuing to work with the Department of Land and Natural Resources (DLNR) and the County to provide a practical solution for providing public access to the shoreline." The Final EA should provide information as to what progress has been made to provide public access to the beach in front of the subject property.

If you have any questions regarding this comment letter, please contact Leo Asuncion, Coastal Zone Management Program Manager, at (808) 587-2875.

Sincerely,

Jesse K. Souki
Director

CHRIS HART
Landscape Architecture
Architecture & Planning

January 9, 2013

Mr. Jesse K. Souki, Director
Office of Planning
Department of Business, Economic Planning & Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

Attention: Mr. Leo Asuncion

Dear Mr. Souki:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 23, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project. We offer the following responses to your comments as enumerated in your letter:

1. The "assumed shoreline" is the proposed shoreline delineated by Mr. Reid Siarot, State Surveyor, in his December 5, 2011 letter (See: Appendix "E" "Shoreline Survey Map", Draft EA.

2. The project engineers determined that the failure of the existing seawall was due to the faulty design of its foundation. The proposed seawall foundation will be anchored to bedrock, thereby stabilizing the shoreline at this location. In the context of the entire length of Keonenui Bay, all of the properties have some form of artificial armoring against shoreline erosion. The Final EA will clarify this and also analyze the project in terms of Act 286, Session Laws of Hawaii 2012. The obvious climate change aspect affecting this project is sea level rise resulting in increased erosion and inundation of land. Any alternative measure of remediation would have to be undertaken simultaneously by all of the property owners in the bay.

3. The purpose of the zoning change from R-3 Residential to H-M Hotel is to bring the existing use and structures into compliance with

current Maui County zoning code. (The "M" indicates "medium" as in density; in between the lowest hotel density "H-1" and highest density "H-2".) There are no plans to expand the project within the shoreline setback area other than what is described within the EA. Any additional development would have to comply with the current Maui Planning Commission Shoreline Rules. The Final EA will clarify this subject.

4. Kahana Sunset is exploring the options for public access and will have a concept plan included in the Final EA.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Kreuz

NEIL ABERCROMBIE
GOVERNOR
STATE OF HAWAII

JOBIE M.K. MASAGATANI
CHAIRMAN DESIGNATE
HAWAIIAN HOMES COMMISSION

MICHELLE K. KAUHANE
DEPUTY TO THE CHAIRMAN

STATE OF HAWAI'I
DEPARTMENT OF HAWAIIAN HOME LANDS

P.O. BOX 1879
HONOLULU, HAWAII 96805

'12 NOV -1 P2:53

October 22, 2012

County of Maui
Department of Planning
Attn: Mr. Clayton I. Yoshida, AICP
Planning Program Administrator
250 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Yoshida:

Subject: Kahana Sunset Shoreline and Site Improvements

Applicant: Kahana Sunset AOAO
Permit No. EA2012/002, SM1 2012/003, SSV 2012/002, CPA 2012/003, CIZ 2012/007
TMK: (2) 4-3-003:015

Thank you for the opportunity to review the Kahana Sunset Shoreline and Site Improvements.

The Department of Hawaiian Homes Lands has no comment to offer at this time. If you have any questions, please contact our Planning Office at (808) 620-9480.

Aloha,

Jobie M.K. Masagatani, Chairman Designate
Hawaiian Homes Commission

EXHIBIT 22

CHRIS HART
& PARTNERS
Landscape Architecture
City & Regional Planning

January 9, 2013

Mr. Jobie M.K. Masagatani, Chairman Designate
Hawaiian Homes Commission
Department of Hawaiian Home Lands
P.O. Box 1879
Honolulu, HI 96805

Dear Mr. Masagatani:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 22, 2012 "no comment" letter in response to the Draft Environmental Assessment (EA) for the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEHart
attachment

c. Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

www.chrisharteam.com

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

RECEIVED

AUG 18 2010

CHRIS HART & PARTNERS, INC.
Landscape Architecture and Planning

In reply, please refer to
EMD / CWB

08031PJF.10

CC: Jason 091143

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

August 16, 2010

Mr. Matthew M. Slepin
Planner
Chris Hart & Partners, Inc.
115 N. Market Street
Wailuku, Island of Maui, Hawaii 96793-1717

Dear Mr. Slepin:

SUBJECT: Environmental Assessment (EA) Early Consultation Request for Proposed Shoreline Erosion Mitigation and Bank Stabilization at Kahana Sunset Condominium Lahaina, Island of Maui, Hawaii TMK: (2) 4-3-003:015

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project.

Please note that our review is based solely on the information provided in the subject document and its compliance with the Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

EXHIBIT 23

2. You may be required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for an NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the start of the construction activities.

   b. Hydrotesting water.

   c. Construction dewatering effluent.

   You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. The NOI forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

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

4. Please contact the Army Corps of Engineers, Regulatory Branch (Tel. No.: 438-9258) to determine if this project requires a Section 404 Permit. Pursuant to Federal Water Pollution Control Act (commonly known as the "Clean Water Act" (CWA)), Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (Emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40, Code of Federal Regulations, Section 122.2; and HAR, Chapter 11-54.

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage and/or section 401 WQC are required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at 586-4309.

Sincerely,

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

JF:ml

c: DOH-EPO #I-3299 [via email only]

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

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

In reply, please refer to
DOH/CWB

10017PMR.12

'12 OCT 22 P3:25

October 17, 2012

Mr. Clayton I. Yoshida, AICP
Planning Program Administrator
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Yoshida:

SUBJECT: Comments on the Draft Environmental Assessment (DEA) for the Kahana Sunset Shoreline and Site Improvements Project Lahaina, Island of Maui, Hawaii
TMK: (2) 4-3-003:015 (LLA 12/02) (SMI 12/07) (SSV 12/02) (CPA 12/07) (CIZ 12/07)

The Department of Health (DOH), Clean Water Branch (CWB), has reviewed the subject document and has no comments at this time. The DOH-CWB provided comments on the Environmental Assessment Early Consultation Request for this project (Letter No. 08031PJF.10, dated August 16, 2010).

Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at: http://hawaii.gov/health/environmental/env-planning/wqm/landuse/landuse.html/CWB-standardcomment.pdf.

If you have any questions, please visit our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at (808) 586-4309.

Sincerely,

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

MR:jst

c: Mr. James A. Buika, County of Maui [via e-mail james.buika@mauicounty.gov only]
DOH-EPO [via e-mail only]

CHRIS HART
& PARTNERS
Landscape Architecture
Land Development

January 9, 2013

Mr. Alec Wong, P.E. Chief
Clean Water Branch
Department of Health
P.O. Box 3378
Honolulu, Hawaii 96801-3378

Dear Mr. Wong:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003),
(CIZ 2012-0007)

Thank you for your October 17, 2012 "no comments" letter in response to the Draft Environmental Assessment (EA) and your August 16, 2010 response to early consultation request for the subject project. We offer the following responses to your comments as enumerated in your August 16, 2010 letter:

1. Potential impacts to State waters.
   a. The proposed project is expected to improve the existing level of water quality since proposed onsite drain inlets will filter contaminants.
   b. The Water Quality Standards Map (October 1987) designates waters of Keonenui Bay as Class A. The recreational and aesthetic enjoyment uses of Class A will not be impacted by the proposed project.
   c. Water quality is not expected to be impacted by the proposed project since demolition and construction will not occur within State waters and storm water flows is not expected to increase.
2. National Pollutant Discharge Elimination System (NPDES) Permit. If it is deemed that an NPDES permit is required, the contractor or engineer shall obtain it.
   a. It is anticipated that less than one (1) acre will be disturbed in the course of this proposed project.
   b. It is not anticipated that hydrotesting water will be necessary.

c. If construction dewatering is anticipated by the contractor, a Notice of Intent will be filed.

3. It is anticipated that other wastewater, not listed in No. 2 above, will <u>not</u> be generated; therefore, a NPDES individual permit will not be necessary.

4. No work, including the demolition of the old seawall, will occur seaward of the mean high water mark which delineates the navigable waters of the U.S., the jurisdiction of the Department of Army (DA). In addition, no dredged or fill material is anticipated to be discharged into the U.S. waters; therefore, a DA Section 404 permit is not required. The proposed actions will not affect the course, location, or condition of U.S. waters as to its navigable capacity; therefore, a DA Section 10 permit is also not required. Confirmation of permit requirements will be verified with the Department of Army.

5. The project contractor and/or the engineer will ensure compliance with the State Water Quality Standards.

Other Clean Water Branch standard comments do not apply to this project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

LORETTA J. FUDDY, A.C.S.W., M.P.H.
DIRECTOR OF HEALTH

LORRIN W. PANG, M.D., M.P.H.
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, HAWAII 96793

'12 OCT 23 P1:37

October 22, 2012

Mr. William R. Spence
Director
Department of Planning
County of Maui
250 South High Street
Wailuku, Hawaii 96793

Attention: Clayton I. Yoshida

Dear Mr. Spence:

Subject:	Kahana Sunset Shoreline and Site Improvements
Applicant:	Kahana Sunset AOAO
Permit No.:	EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012/0007
TMK:	(2) 4-3-003:015
Project Location:	4909 Lower Honoapiilani Road, Lahaina, Maui Hawaii
Project Description:	Stabilize bank at the shoreline of Keonenui Bay in order to prevent future erosion

Thank you for the opportunity to review this project. We have the following comments to offer:

1. National Pollutant Discharge Elimination System (NPDES) permit coverage maybe required for this project. The Clean Water Branch should be contacted at 808 586-4309.

2. The Army Corp of Engineers should be contacted at (808) 438-9258 to identify whether a Federal license or permit is required for the demolition work of the old wall.

3. The noise created during the construction phase of the project may exceed the maximum allowable levels as set forth in Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control." A noise permit may be required and should be obtained before the commencement of work. The Indoor & Radiological Health Branch should be contacted at 808 586-4700.

EXHIBIT 24

It is strongly recommended that the Standard Comments found at the Department's website: http://hawaii.gov/health/environmental/env-planning/landuse/landuse.html be reviewed, and any comments specifically applicable to this project should be adhered to.

Should you have any questions, please call me at 808 984-8230 or E-mail me at patricia.kitkowski@doh.hawaii.gov.

Sincerely,

Patti Kitkowski

Patti Kitkowski
District Environmental Health Program Chief

c EPO

CHRIS HART & PARTNERS

Landscape Architecture for Civil & Regional Planning

January 9, 2013

Ms. Patti Kitkowski, District Environmental Health Program Chief
Maui District Health Office
Department of Health
54 High Street
Wailuku, HI 96793

Dear Ms. Kitkowski:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 22, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project. We offer the following responses to your comments as enumerated in your letter:

1. If a National Pollutant Discharge Elimination System (NPDES) permit is required, the contractor or engineer shall obtain it. The Clean Water Branch has reviewed the project and provided comments.
2. No work, including the demolition of the old seawall, will occur seaward of the mean high water mark which delineates the navigable waters of the U.S., the jurisdiction of the Department of Army (DA). In addition, no dredged or fill material is anticipated to be discharged into the U.S. waters; therefore, a DA Section 404 permit is not required. The proposed actions will not affect the course, location, or condition of U.S. waters as to its navigable capacity; therefore, a DA Section 10 permit is also not required.
3. The contractor will obtain a noise permit prior to construction activities that are expected to exceed maximum permissible levels.

Other Department of Health standard comments do not apply to this project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

JEDAN 5/1/21

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

AGENCY NAME	Dept. of Human Services	PHONE	808-586-7112

Agency Transmittal – (EA 2012/0002, SM1 2012/0003, SSV 2012/0002, CPA 2012/0003, CIZ 2012/0007)
September 27, 2012
Page 3

COMMENT/RECOMMENDATION BOX			
Signed:		Dated:	
Print Name:		Title:	
NO COMMENT			
Signed:	Marja Leivo	Dated:	10-5-2012
Print Name:	Marja Leivo	Title:	Child Care Program Specialist

'12 OCT -5 P2:53

'12 OCT -5 P2:53

EXHIBIT 25

CHRIS HART

January 9, 2013

Ms. Marja Leivo, Child Care Program Specialist
Child Care Program Office
Department of Human Services
1390 Miller Street, Room 209
Honolulu, Hawaii 96813

Dear Ms. Leivo:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 5, 2012 "no comment" response to the Draft Environmental Assessment (DEA) for the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ESTHER KIA'AINA
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

DLNR.OCCL.BR

Correspondence: MA-13-29

RECEIVED
NOV 5, 2012

NOV 0 6 2012

CHRIS HART & PARTNERS, INC
Landscape Architecture and Planning
CV. Raymond 09/143

Clayton I. Yoshida, Planning Program Administrator
Department of Planning, County of Maui
250 South High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Yoshida,

SUBJECT: Comments on The Draft Environmental Assessment (EA) for Kahana Sunset Shoreline & Site Improvements at the Kahana Sunset Condominiums at 4909 Lower Honoapiilani Road, Lahaina, Maui, Hawaii 96761, TMK (2) 4-3-003:015.

The Department of Land and Natural Resources, Office of Conservation and Coastal Lands (OCCL) has reviewed the July 2012 Draft Environmental Assessment (Draft EA) for proposed Shoreline and Site Improvements at the Kahana Sunset Condominiums at 4909 Lower Honoapiilani Road, Lahaina, Maui, TMK (2) 4-3-003:015. Chris Hart and Partners, Inc. on behalf of the Kahana Sunset AOAO (the Applicant) is proposing construction of a replacement seawall fronting the shoreline of the subject property.

The subject property and adjacent properties fronting the shoreline at Keonenui Bay are armored by seawalls. A long-term trend of erosion, punctuated by seasonal erosion events, has caused portions of the existing seawall in the north of the subject property (between buildings "A" and "F") to fail. The seawall in this area has developed severe cracks and has been undermined, with sink holes appearing landward of the seawall.

The Applicant is recommending demolition of the existing seawall and stairs between buildings "A" and "F" and construction of a replacement seawall (approximately 125-feet long, 15-inch wide) and stairs (approximately 13-feet long) between 3 and 10 feet landward of the existing seawall. The seawall will be constructed on the landward side of the shoreline as delineated by the State Land Surveyor on November 15, 2011. The shoreline location has not been officially accepted by State, pending resolution of several encroaching structures fronting the subject property. Landward relocation of the seawall and stairs will have the effect of widening the beach by 3-10 feet in the project area.

OCCL has conducted a thorough review of the Draft EA and finds the document complete, overall. However, OCCL has four comments on technical aspects of the Draft EA, which we feel should be addressed in the Final EA.

EXHIBIT 26

1. The Draft EA notes that work will be conducted during the time of year when the tides are lowest. Work should also be conducted during summer when waves are lowest.

2. Any clean beach-quality sand excavated during demolition and construction should be returned to the beach fronting the seawall.

3. The Geoanalytical Report in the Draft EA (Appendix G) found clayey silt layers in borings conducted fronting Building "A" adjacent to the project site. Borings were not conducted within the project site. It is possible that excavation of the area behind the existing seawall will expose clay layers at or below the grade of the newly-widened beach area. If clay layers are discovered in this area, the clay should be excavated below beach grade and replaced with beach-quality sand to prevent erosion of clay and siltation of coastal waters during high waves and seasonal erosion.

4. Page 37 of the Draft EA, under Special Management Area Objective and Policies, (A) Recreational Resources states: *Public beach access exists at Hui Road E, approximately 500 feet to the south of the project site. The applicant 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.* Please provide details on proposed solutions for improving public access to the beach fronting the subject property.

Thank you for the opportunity to comment on the Draft EA for this project. Please contact Sea Grant Extension Agent Brad Romine at OCCL, at 587-0049 or Bradley.M.Romine@Hawaii.gov, should you have any questions.

Sincerely,

SAMUEL J. LEMMO, Administrator
Office of Conservation and Coastal Lands

CC: Chris Hart & Partners, Inc.
Kahana Sunset AOAO
DLNR Chairperson
BLNR Maui Representative
DLNR Land, Russell Tsuji

CHRIS HART & PARTNERS, INC
Landscape Architecture
City & Regional Planning

January 31, 2013

Mr. Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands
Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Attention: Mr. Brad Romine

Dear Mr. Lemmo:

RE: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002)(SM1 2012-0003)(SSV 2012-0002)(CPA 2012-0003)(CIZ 2012-0007) MA-13-29.

Thank you for your November 5, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project. We are pleased that you found the Draft EA to be complete overall. We offer the following responses to your comments as enumerated in your memorandum:

1. Work will be conducted during the times of the year when tides and waves are the lowest. This is generally during the spring and summer months.
2. Beach quality sand that is excavated during demolition and construction will be returned to the beach.
3. 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.
4. The applicant will be preparing a concept plan for an approximately 237 foot long beach access path along the property's south boundary for review by the appropriate State and County agencies. This plan will be included in the Final EA.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

DIVISION OF AQUATIC RESOURCES - MAUI
DEPARTMENT OF LAND & NATURAL RESOURCES
130 Mahalani Street
Wailuku, Hawaii 96793
October 22, 2012

To: Lydia Morikawa, Land

From: Skippy Hau, Aquatic Biologist

Subject: Draft EA Kahana Sunset Shoreline and Site Improvements
(DAR 4492) (Due Date: November 1, 2012)

(P.11) F. DESCRIPTION OF PROPOSED ACTION (PREFERRED ALTERNATIVE) The 36-inch corrugated metal drainline and drainage outfall should be better described.

Does the structural engineering report mean continued erosion from the beach?

The retaining walls may cause erosion of the sand beach.

(P.13) The shoreline setback determination was 76.48 feet. Under the existing situation, it will not protect buildings A & F from large swells and erosion.

Is runoff being allowed to drain into the ground or the sand beach?

(P.25) Drainage runoff should be minimized. It appears the most of the drainage is directed to the 36-inch outfall. The proposal should be describing how runoff will be retained and allowed to naturally recharge into the ground or be redirected into property landscaping to reduce watering. Could the drainage be causing some of the erosion by sea walls during heavy downpours?

(P.26) The replacement of the 36-inch corrugated metal pipe should be evaluated for leaks. Will mitigation actions include underground retention culverts to reduce the flow of runoff during heavy rains?

EXHIBIT 27

(P.29) We strongly support any improvements to increase public access to the beach and shoreline.

(P.43) 76.42 feet shoreline setback is different from page 13.

(P.47) There have been reports of threatened honu (*Chelonia mydas*) basking in nearby coves. There have been no turtle nesting in this location. Honu are often observed swimming in nearby waters.

FIGURE 9.4 SITE PHOTOGRAPHS
Could the sinkhole conditions be caused from the drainage directed to the outfall? It appears the sinkholes are caused by ground water moving substrate. If sand were used to fill behind the seawalls without compaction, this could cause instability. The addition of landscape watering, heavy rains, tidal changes and large surf appears to contribute to the eventual erosion over time. Is there sufficient weep holes to allow groundwater from building up behind the sea walls?

Does the dry well allow for sufficient water recharge into the ground? If not, retention drainage or redirection of landscape drainage may be needed to relieve the outfall. (Photo 30) "Typical sink hole behind seawall" appears to indicate runoff drainage is eroding sand from existing areas.

APPENDIX G. The March 13, 2006 Geoanalytical Report confirmed groundwater in borings at Building "F."

Earth Pressures….. undrained by weep holes or a back drainage system. To address sink holes, should weep holes be added to the sea walls or specifically by building F? How many of the walls had weep holes?

CHRIS HART
& PARTNERS
Landscape Architecture
Urban & Regional Planning

January 9, 2013

Mr. Skippy Hau, Aquatic Biologist
Division of Aquatic Resources
Department of Land & Natural Resources
130 Mahalani Street
Wailuku, HI 96793

Dear Mr. Hau:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (DAR 4492) (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 22, 2012 memorandum in response to the Draft Environmental Assessment (EA) for the subject project. We offer the following responses to your comments:

Setback. The discrepancy was a typographic error and will be corrected in the Final EA. The Average Lot Depth setback is 76.48 feet.

Seawall. The properties fronting the entire shoreline on Keonenui Bay between Haukoe and Alaeloa Points are armored by individual seawalls that together form a nearly contiguous structure along the shoreline. The shoreline fronting Kahana Sunset has an annual erosion hazard rate (AEHR) between 0.8 and 1.2 feet per year. Although seawalls tend to increase beach erosion by magnifying wave energy, all of the seawalls on the bay have served to prevent loss of land and prevent earthen soils from eroding and causing siltation of coastal waters. While the proposed seawall does not directly front Buildings "A" and "F", it will prevent flank erosion that will certainly occur without the proposed seawall in place. The *Preliminary Structural Engineering Report* (AAA Structural Engineering, May 2012) contains preliminary drawings of the seawall that are conceptual. Final drawings may include weep holes in the seawall appropriately spaced to reduce hydrostatic pressure on the *mauka* side of the wall.

Sink Holes. The *Geoanalytical Report* (Weidig Geoanalysts, March 2006) explains that the "sink holes" formed because the base of existing seawall was founded on sand and not on bedrock. The report also discusses the

hydrostatic pressure build up behind the existing seawall caused by local irrigation, rainfall, and tidal changes, and the movement of this transient ground water. The proposed new seawall will have a more substantial foundation anchored to bedrock which is expected to prevent future sink holes.

Beach Access. A conceptual design for a proposed beach access through the Kahana Sunset property will be provided in the Final EA.

Drainage. The 36-inch drainline and its outfall is further described in the *Preliminary Drainage Report* (M. Siah, April 2012) and is also shown in Figure No. 9.4, Photo No. 28. In the Final EA, the description will expanded to provide more detail. Also noted in the report, the proposed action will actually slightly decrease storm runoff from the Kahana Sunset property. In addition, the Kahana Sunset storm runoff (11.35 cfs) represents only eighteen percent (18%) of the maximum total storm water outflow. This takes into account absorption of storm water into landscaped areas. The Kahana Sunset drainage system was designed to handle onsite storm runoff. It is <u>not</u> expected that Kahana Sunset will be held responsible for retention of storm water generated by offsite upland properties.

Honu. The waters around all of the islands are known habitats for the Hawaiian monk seal and the green and hawksbill turtles; however, there are no officially designated "critical habitats" for these species at this time in the waters surrounding Maui. The following procedures will be implemented to mitigate any possible impact 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.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Schreibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

October 9, 2012

MEMORANDUM

TO: **DLNR Agencies:**
X Div. of Aquatic Resources
X Div. of Boating & Ocean Recreation
X Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
X Commission on Water Resource Management
X Office of Conservation & Coastal Lands
X Land Division – Maui District
X Historic Preservation

RECEIVED
LAND DIVISION
2012 OCT 11 P 3:17
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

FROM: Russell Y. Tsuji, Land Administrator
SUBJECT: Kahana Sunset Shoreline and Site Improvements
LOCATION: Lahaina, Island of Maui; TMK: (2) 4-3-003:015
APPLICANT: Kahana Sunset AOAO

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by November 1, 2012.

Only one (1) copy of the CD is available for your review in Land Division office, Room 220.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact Lydia Morikawa at 587-0410. Thank you.

Attachments

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

Signed:
Print Name: Edward R Underwood
Date: 10/16/12

cc: Central Files

EXHIBIT 28

CHRIS HART
& PARTNERS, INC.
Land Use & Architecture
Civil & Regional Planning

January 9, 2013

Mr. Edward Underwood, Administrator
Division of Boating & Ocean Resources
Department of Land & Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Underwood:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 10, 2012 "we have no comments" response to the Draft Environmental Assessment (EA) for the subject project.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/LydiaMOrikawa
Ref: SMAUsePermitKahannaSunsetShoreline
Maui.585

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zones X, AE and VE. The National Flood Insurance Program does not have any regulations for developments within Zone X however, it does regulate developments within Zones AE and VE as indicated in bold letters below.**

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone.

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

(X) **Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.**

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Mario Siu Li at (808) 768-8098 or Ms. Ardis Shaw-Kim at (808) 768-8296 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Frank DeMarco at (808) 961-8042 of the County of Hawaii, Department of Public Works.

(X) **Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.**

( ) Ms. Wynne Ushigome at (808) 241-4980 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie Agraan of the Planning Branch at 587-0258.

Signed: _____
CARTY S. CHANG, CHIEF ENGINEER

Date: OCT 16 2012

EXHIBIT 29

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
Urban & Regional Planning

January 9, 2013

Mr. Carty S. Chang, Chief Engineer
Engineering Division
Department of Land & Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Chang:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 16, 2012 response to the Draft Environmental Assessment (EA) for the subject project.

We acknowledge your confirmation that the project site is located in Flood Zones X, AE and VE. The applicant will comply with rules and regulations of the National Flood Insurance Program (NFIP) and Chapter 19.62 "Flood Hazard Areas", Maui County Code, where the proposed project falls within the Special Flood Hazard Area.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

1/6403

NEIL ABERCROMBIE
GOVERNOR

GLENN M. OKIMOTO
DIRECTOR

Deputy Directors
JADE T. BUTAY
FORD N. FUCHIGAMI
RANDY GRUNE
JADINE URASAKI

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:

STP 8.1031

DEPT. OF PLANNING
COUNTY OF MAUI

NOV 23 2012

RECEIVED

November 9, 2012

Mr. Clayton I. Yoshida, AICP
Planning Program Administrator
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Dear Mr. Yoshida:

Subject: Kahana Sunset Shoreline and Site Improvements
Draft Environmental Assessment (EA 2012/00002)
Special Management Area Use Permit (SM1 2012/0003)
Shoreline Setback Variance (SSV 2012/0002)
Community Plan Amendment (CPA 2012/0003)
Change in Zoning (CIZ 2012/0007)
TMK: (2) 4-3-003:015

Thank you for requesting the State Department of Transportation's (DOT) review of the subject project. DOT understands that the applicant proposes to replace a portion of an existing seawall and stair structure to prevent future erosion and undermining.

Given the location and the nature of the project, DOT does not anticipate any significant adverse impacts to the State transportation facilities.

DOT appreciates the opportunity to provide comments. If there are any other questions, please contact Mr. Garrett Smith of the DOT Statewide Transportation Planning Office at telephone number (808) 831-7976.

Very truly yours,

GLENN M. OKIMOTO, Ph.D.
Director of Transportation

EXHIBIT 30

CHRIS HART
& PARTNERS, INC
Landscape Architecture
Land & Regional Planning

January 9, 2013

Mr. Glenn M. Okimoto, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Attention: Mr. Garret Smith

Dear Mr. Okimoto:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your November 9, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project.

We acknowledge that your Department does not anticipate significant adverse impacts to State transportation facilities.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

2/4/04

DEPT. OF PLANNING
COUNTY OF MAUI

NOV - 2 2012

RECEIVED

AGENCY NAME	State Civil Defense	PHONE	733-4300

COMMENT/RECOMMENDATION BOX			
After review of the documents provided, we find that the proposed parcel is covered by the arc of an existing warning siren. We defer to the appropriate state and federal agencies as to the protection of the coastal environment as well as the cultural, historical, and archeological elements of the property.			
Signed:		Dated:	October 30, 2012
Print Name:	DOUG MAYNE	Title:	Vice Director of Civil Defense
NO COMMENT			
Signed:		Dated:	
Print Name:		Title:	

EXHIBIT
EXHIBIT 31

CHRIS HART & PARTNERS, INC.
Landscape Architecture
City & Regional Planning

January 9, 2013

Mr. Doug Mayne, Vice Director of Civil Defense
Hawaii State Civil Defense
3949 Diamond Head Road
Honolulu, Hawaii 96816-4495

Dear Mr. Mayne:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SMI 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 30, 2012 memorandum in response to the Draft Environmental Assessment (EA) for the subject project.

We acknowledge your statement that the subject parcel is covered by the arc of an existing warning siren.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart
President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY KAULUKUKUI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAHUHIHEWA BUILDING
601 KAMOKILA BLVD, KAPOLEI HI 96707

May 7, 2012

Lisa Rotunno-Hazuka
Archaeological Services Hawaii, LLC
1930 A Vineyard Street
Wailuku HI 96793

LOG NO: 2012.0765
DOC NO: 1205JP02
Archaeology

Dear Ms. Rotunno-Hazuka:

SUBJECT: Chapter 6E-42 Historic Preservation Review-
Archaeological Monitoring Plan
Alaeloa Ahupua'a, Lahaina District, Island of Maui
TMK (2) 4-3-003:015 (por.)

Mahalo for the opportunity to review the draft plan titled *Archaeological Monitoring Plan for the Repair & Replacement of Sea Walls and Demolition of Concrete Stairway TMK: 4-03-003:015, Alaeloa Ahupua'a, Lahaina District, Island of Maui* by Lisa J. Rotunno-Hazuka and Jeffrey Pantaleo (March 2012). This document was received by our office on March 20, 2012.

We recommend an archaeological monitoring program be initiated for the proposed improvements project at Kahana Sunset; therefore, thank you for submitting the subject plan. The proposed work will occur within isolated sections of the developed 4.467 acre parcel.

This monitoring plan outlines the proposed objectives and procedures that will be implemented to prevent damage to unknown sites including the identification and documentation of any newly discovered archaeological and cultural features. The plan meets the requirements of Hawaii Administrative Rules §13-279 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Please contact Jenny Pickett at (808) 243-5169 or Jenny.L.Pickett@Hawaii.gov if you have any questions regarding this letter.

Aloha,

Theresa K. Donham
Archaeology Branch Chief

cc: Chris Hart & Partners, Attn: Raymond Cabebe Via email: RCabebe@chpmaui.com
County of Maui, Department of Planning Via fax: (808) 270-7634
County of Maui DSA via fax to: (808) 270-7972

EXHIBIT 32

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, HONOLULU DISTRICT
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

January 29, 2013

Regulatory Branch

File Number **POH-2010-00206**

Clayton I. Yoshida, AICP
Planning Program Administrator
Department of Planning
County of Maui
250 South High Street
Wailuku, HI 96793

Dear Mr. Yoshida:

This responds to your request for written comments for the Final Environmental Assessment (FEA) which address activities and impacts for a proposed shoreline and erosion mitigation and bank stabilization project. The location of the proposed project is at 4909 Lower Honoapiilani Road, Alaeloa, Lahaina, Maui on the parcel identified as TMK 243003015.

The FEA for the proposed seawall repair project was reviewed pursuant to Section 10 of the Rivers and Harbors Act of 1899 (Section 10) and Section 404 of the Clean Water Act (Section 404). Section 10 requires that a Department of Army (DA) permit be obtained for certain structures or work in or affecting navigable waters of the United States (U.S.), prior to conducting the work (33 U.S.C. 403). Navigable waters of the U.S. are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified as navigable by the Honolulu District. In addition, a Section 10 permit is required for structures or work outside this limit if they affect the course, location, or condition of the waterbody as to its navigable capacity.

Section 404 requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands, prior to conducting the work (33 U.S.C. 1344). The area of Corps jurisdiction under Section 404 extends to the Mean High Tide Line (MHTL) for navigable waters like the Pacific Ocean, and to the upland boundary of any adjacent wetlands.

The information presented indicates that the work proposed at the sea wall location will be above, and shoreward of the Pacific Ocean, a navigable water of the U.S. The alternatives to accomplish the work has been considered and sufficient detail has been disclosed about the specific methods of construction and associated mitigative measures to ensure that in-water activities will not occur.

EXHIBIT 33

The Corps has therefore determined that a DA permit for Section 10 and Section 404 activities will not be required for those activities associated with the proposed re-location and reconstruction of the seawall project.

Thank you for your consideration of potential impacts to the aquatic environment of the Lahaina watershed. Please contact Mr. Farley Watanabe of my staff at 808-835-4305, facsimile 808-835-4126, or by email at Farley.K.Watanabe@usace.army.mil if you have any questions or need additional information. Please refer to File Number **POH-2010-00206** in any future correspondence with us.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Copy furnished:
John Nakagawa, Office of Planning, CZM Program via e-mail at<JNakagaw@dbedt.hawaii.gov>
Darryl Lum, Chief, Clean Water Branch, State DOH via e-mail at <darryl.lum@doh.hawaii.gov>
Raymond Cabebe, Chris Hart & Partners, Inc. via e-mail at <RCabebe@chpmaui.com>

CHRIS HART & PARTNERS INC
Landscape Architecture
City & Regional Planning

February 7, 2013

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

Attention: Mr. Farley K. Watanabe

Dear Mr. Young:

RE: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002)(SM1 2012-0003)(SSV 2012-0002)(CPA 2012-0003)(CIZ 2012-0007) **POH-2010-00206.**

Thank you for your January 29, 2013 letter in response to the Draft Environmental Assessment (EA) for the subject project.

We acknowledge that you reviewed the subject project pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. We also acknowledge that the Corps has determined that a Department of Army (DA) permit for Section 10 and Section 404 activities will not be required for the activities associated with the proposed relocation and reconstruction of the seawall

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

2013-02-07

Jordan E. Hart
President
Land Planner

JEH:rrc
attachment
c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz
Mr. James Buika

Maui Electric Company, Ltd.•210 West Kamehameha Avenue•P. O. Box 398•Kahului, Maui, HI 96733-0698•(808) 871-8461

October 9, 2012

'12 OCT 12 AM10:57

Mr. Clayton Yoshida, AICP
Planning Program Administrator
County of Maui – Department of Planning
250 South High Street
Wailuku, Hawaii 96793

Subject: Draft Environmental Assessment (EA) for Kahana Sunset Shoreline and Site Improvements
Tax Map Key: (2) 4-3-003:015
4909 Lower Honoapiilani Road, Lahaina, Maui, Hawaii

Dear Mr. Yoshida,

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

In reviewing our records and the information received, Maui Electric Company (MECO) may have facilities within the project area. We highly encourage the customer to submit survey and civil plans to us as soon as practical to verify the project's location requirements and address any possible relocations or conversions of our facilities.

Should you have any questions or concerns, please feel free to contact Keicie Kawamura at 872-3246.

Sincerely,

Ray Okazaki
Supervisor, Engineering

EXHIBIT 34

CHRIS HART
& PARTNERS, INC.
Landscape Architecture
City & Regional Planning

January 9, 2013

Mr. Ray Okazaki, Engineering Supervisor
Maui Electric Company
P.O. Box 398
Kahului, Hawaii 96732-6898

Attention: Ms. Kelcie Kawamura

Dear Mr. Okazaki:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your October 9, 2012 letter in response to the Draft Environmental Assessment (EA) for the subject project.

When appropriate, Kahana Sunset will submit survey and civil plans to verify the project's location requirements and to address any necessary relocation or conversion of your facilities.

If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely yours,

Jordan E. Hart, President
Principal Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz

Maui Planning Commission
Department of Planning
250 S. High St.
Wailuku, HI 96793
Attention: Planning Director Will Spence

DEPT. OF PLANNING
COUNTY OF MAUI
MAR - 7 2013
RECEIVED

EXHIBIT
35

Regarding: Kahana Sunset Apartments

The Kahana Sunset complex is located in Napili, which is basically a residential community. Its residents have enjoyed their ocean views for decades. If the Kahana Sunset is allowed to change its current residential zoning to that of a hotel zone, there is the possibility that a large high rise hotel could be built on the property. This could adversely affect our community. Added traffic congestion on a road that has trouble handling trucks, buses, cars and pedestrians would be horrendous. Kahana Sunset is located in an area of very limited sight distances. A very dangerous curve with no shoulders makes it difficult for vehicles and pedestrians to use the same space. Those that live above the lower road would lose their precious ocean views.

The Kahana Sunset has existed since 1971, zoned residential. Let's keep our community as is. The current seawall can be upgraded as well as the drainage. Those that now live in the complex deserve the upgrade, but not the rezoning.

Please keep the area zoned residential.

Sincerely,
Harry C. Duckworth
21 KiOhuOhu Lane#3
Lahaina, HI 96761

Cooper D. Winn
COOPER D. WINN
37 POLOHINA LANE #6
Lahaina, HI 96761

Jim Cribbed
JIM CRIBBED
141 'A HUI RD F
LAHAINA, MAUI 96761

Nathaniel Hunt

Kevin Sampson
Robert A. Rasgoen
16 POLOHINA #4

Tom Conjon
5095 Napilihau St pmb #322
Napili, HI 96761

Charles Pacini

Linda S. Winn
LINDA S. WINN
37 Polohina Lane, apt. 6
Lahaina, HI 96761

Mahnel Rizzer
Pam H Seeley

Peri Tostzer

Don Judy

Jay Mamm

Pam Cohn
82 HO'OLAPA ST
96753

Larry Lee

Morris Jamesby

Charlotte Rangeda

George Wechler

Sahn Choy

Page 1)

Maui Planning Commission
Department of Planning
250 S. High St.
Wailuku, HI 96793
Attention: Planning Director Will Spence

Regarding: Kahana Sunset Apartments

The Kahana Sunset complex is located in Napili, which is basically a residential community. Its residents have enjoyed their ocean views for decades. If the Kahana Sunset is allowed to change its current residential zoning to that of a hotel zone, there is the possibility that a large high rise hotel could be built on the property. This could adversely affect our community. Added traffic congestion on a road that has trouble handling trucks, buses, cars and pedestrians would be horrendous. Kahana Sunset is located in an area of very limited sight distances. A very dangerous curve with no shoulders makes it difficult for vehicles and pedestrians to use the same space. Those that live above the lower road would lose their precious ocean views.

The Kahana Sunset has existed since 1971, zoned residential. Let's keep our community as is. The current seawall can be upgraded as well as the drainage. Those that now live in the complex deserve the upgrade, but not the rezoning.

Please keep the area zoned residential.

Sincerely,

Harry C. Duckworth
21 KiOhuOhu Lane#3
Lahaina, HI 96761

Name	Address
TERRIS L. PENNINGTON	107 PUNOHU LN #2 LAHAINA 96761
LARRY KUOLATY	38 POLOHINA LN #8 96761
Lois Bermel	38 Polohina Lane #8 96761
Rebecca Hanken	49 Polohina Lane #12-2 96761.
HUGO DIAZ	8 Polohina Ln #7 96761
Annette Eberlien,	133 Punohu Lane #6, Lahaina, HI 96761

NAPILI VILLAS

ONE OF WEST MAUI'S FINEST NEIGHBORHOODS

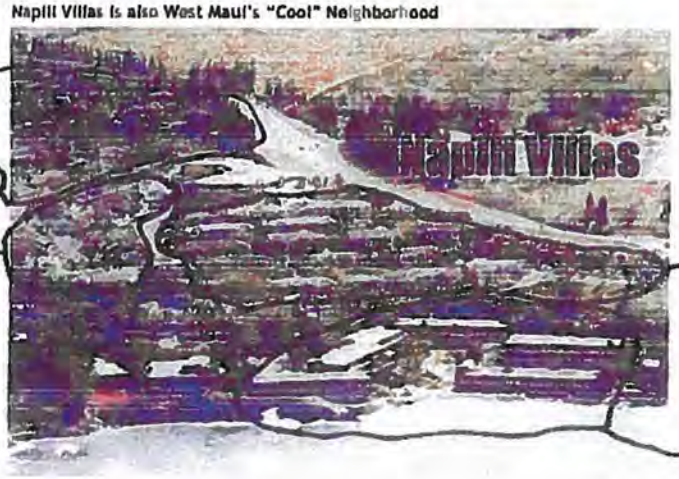
Aloha & Welcome | Current Listings | Napili Villas Community | Contact Bev Will

Aloha & Welcome

One of West Maui's finest neighborhoods

Located just South of the Kapalua Resort (a 1 very 1 minute drive down Honoapiilani Hwy) and just above the "Lower Road," you'll discover Napili Villas.

Napili Villas is also West Maui's "Cool" Neighborhood



Private Homes

Napilihau Village (2 stories)

Napili Villas (2 stories)

Kahana Sunset

This residential condominium community is cool. We've labeled it "cool" because the ocean breezes and winds waft through our neighborhood most every day. We can keep our windows open and enjoy the cool breezes. And, many evenings, we can [illegible] off.

During your search for a home, consider Napili Villas. The floorplans are well designed, [illegible] reserved TWO for EACH [illegible] parking [illegible] convenient [illegible] enjoyment.

I invite you to explore this website and if you have any questions about the neighborhood [illegible] email - bev@bevwill.com or give me a call at 808 268.0770. I'm a REALTOR® (Broker) with [illegible] Realty Group and have received [illegible] awards [illegible] honored to represent you.

Napili Villas

- 18 [illegible]
- 26 buildings
- Low-density - only 2 stories
- 8 units per building; 6 buildings with 4 units
- Completed in 2002
- Double pane vinyl sliding doors and windows
- Lanais on all ground floor units
- Lanai/balcony on second floor units
- 2 reserved parking spaces
- Pets allowed
- Manicured Park-like [illegible]

CHRIS HART & PARTNERS, INC
Landscape Architecture
Civil & Regional Planning

March 21, 2013

Mr. Harry C. Duckworth
21 Ki Ohu Ohu Lane #3
Lahaina, Hawaii 96761

Dear Mr. Duckworth:

Re: **Draft Environmental Assessment** for the Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (EA 2012-0002), (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter on March 8, 2013 providing comments in response to the Draft Environmental Assessment (EA) for the subject project.

Kahana Sunset was constructed in 1971 as an apartment-condominium project on residential zoned property by way of a variance granted in 1968. In 1971, short term rental ("transient vacation rentals" or "TVR") use was permitted in the apartment district. The County of Maui now wishes to have the use on the property consistent with the zoning. Since TVR use has not been allowed within apartment zoning since 1991, hotel is the most appropriate zone for the existing use.

The owners of Kahana Sunset are not intending to expand the number of units nor are they intending to build anything higher than what is there presently. The Maui Planning Commission has recommended that a height limit of three-stories be maintained for the property and Kahana Sunset has agreed. It is expected that the three-story height limit will be a condition of the proposed zoning. As such, with the proposed zoning change, the community will basically remain as is with no additional impacts to views or traffic.

We appreciate your support of the seawall and drainage improvements on the property. Please note: These are the only scopes of work proposed for this application.

Please forward this letter to the other concerned parties on your letter who did not provide an address. If you have any further questions, please contact Raymond Cabebe of our office, or me.

EXHIBIT

[illegible]
www.[illegible]

Sincerely yours,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Ms. Karen Dedman
Ms. Karen Krenz
Mr. Jim Buika, Planning Deparment
Addressees on letter

Raymond Cabebe

From: Raymond Cabebe
Sent: Wednesday, June 12, 2013 8:14 AM
To: 'Kent Simon'
Subject: RE: Kahana Sunset

Mr. Simon,

Thank you for submitting your question regarding the Change in Zoning for the Kahana Sunset Resort property.

In regards to your concern, Kahana Sunset did explore all zoning options, including A-2 Apartment zoning. When Kahana Sunset was constructed in 1971, vacation or short-term rentals were allowed in the Apartment District, unlike the current County code which only allows for long-term rentals. As such, a Hotel designation is Kahana Sunset's only option in order continue the existing vacation rental use that has been in place since 1971. H-M Hotel zoning was selected over H-1 (2-story maximum) because of the existing 3-story structures.

At its review of the Draft Environmental Assessment, the Maui Planning Commission expressed its intention of imposing a 3-story height limit, in line with the existing building configurations, so that should allay your fear of a dramatic increase in density and height. In addition, since the property is within the Special Management Area (SMA), any future re-development would be subject to a public hearing and require approval by the Maui Planning Commission.

We hope this addresses your concern. If you have any additional questions, please feel free to email or call.

Regards,

R. Raymond Cabebe, LEED® AP BD+C
Land Planner
CHRIS HART & PARTNERS, INC.
115 N. Market Street
Wailuku, Maui, Hawaii 96793
voice: 808.242.1955 x556
facsimile: 808.242.1956
direct: 808.270.1556
www.chpmaui.com

From: Kent Simon [mailto:sueandkent@msn.com]
Sent: Wednesday, June 05, 2013 8:19 AM
To: Raymond Cabebe

EXHIBIT 36

Subject: Kahana Sunset

Dear Sirs- 3 June, 2013

I question the reasoning of change of zoning to H-M Hotel, which allows for 6 stories, as opposed to Apartment-2 (A-2) which allows for 4 stories, and would presumably cover the existing buildings and their use.
Although your letter of 30 May, 2013 explains "no plans to expand or enlarge", my fear is that with H-M Hotel zoning, the property with its 42 year old structures could be developed into a hotel resort of 6 stories and much larger use density.
The neighborhood (including me) is R-3 Residential, and a H-M Hotel right in the middle would be unacceptable "spot" zoning.
I think Kahana Sunset could justify zoning change to existing use, but question going beyond that to allow H-M Hotel zoning which would allow drastically increased density and height, and endanger the existing neighborhood ambiance.

Respectfully,
Kent Simon
29 Hale Malia Place
Lahaina, 96761
TMK: 4-3-3:94

Raymond Cabebe

From: Raymond Cabebe
Sent: Thursday, June 27, 2013 12:33 PM
To: 'pquigley@clublespri.com'
Cc: 'repbis2@yahoo.com'; Jacque Scheibel; Keith Meyer; Ken Gadicke (k.gadicke@gadminca.com); Jordan Hart
Subject: Kahana Sunset Master Plan
Attachments: image001.jpg

Mr. Quigley,
Thank you for submitting your questions regarding the Kahana Sunset proposal for shoreline and site improvements.
We offer the following responses to your questions as enumerated in your June 5, 2013 email:

1. Jacqueline Scheibel, Keith Meyer, Ken Gadicke, Karen Krenz and Karen Dedman will be attending the meeting hosted by Kahana Sunset (KS). This meeting is in response to a County Planning Department comment on the Draft Environmental Assessment (EA) that recommended an informational meeting with the neighbors. No one from the County will be present, however the meeting proceedings will be reported in the Final EA.
2. The entire seawall, from its connection to the Building A seawall to and including the stairs, will be replaced. Overlaying the proposed plan over an old site plan reveals that the old pool location lies just mauka of the top of the new stairway to the beach. There are plantings and lawn in the area. If any pool remnants are encountered, they will be removed and filled with soil.
3. KS intends to fund the replacement drain line in order to retain control over it. Due to its 40 year life expectancy, the pipe has developed leaks. KS has decided to take preemptive action before it develops into a more serious problem.
4. The beach access will be constructed by KS entirely on KS property. The path will be delineated by a six-foot high fence with a landscape planting buffer. The actual path varies in width between 38 inches and 60 inches. At Building F, it narrows to 42 inches and a concrete stairway will be constructed leading to beach level, about 8 feet below grade.
    a. Liability. The purpose of the Hawaii Recreational Use Statute (HRUS) "is to encourage owners of land to make land and water areas available to the public for recreational purposes by limiting their liability toward persons entering thereon for such purposes." This statute provides a measure of liability protection for land owners. The entire statute (Chapter 520 Hawaii Revised Statutes) can be viewed here: http://codes.lp.findlaw.com/histatutes/3/28/520. KS may consider acquiring additional insurance.
    b. Gates. The gates are proposed to be open between the hours of 9:00 AM and 7:00 PM. KS will maintain control of the gate locks which will be locked for security purposes at all other times.
    c. Security. KS does not anticipate a need for additional security.
    d. Outdoor showers. KS has expressed to the County its preference to not allow

EXHIBIT 37

public use of the outdoor showers on KS property.

e. Schweitzers. They are aware of the proposed beach access path and have expressed opposition.

f. Easement. The County is not being given a "permanent" easement, however the proposed path is a "solution" for public beach access required by a previous emergency permit and will most likely become one of the conditions for approval of the permits required for the seawall project. KS retains ownership and it is expected that the County will require that a unilateral hold-harmless agreement be executed and recorded to memorialize this condition.

We hope this addresses your concerns. If you have any additional questions, please feel free to email or call.

Regards,

R. Raymond Cabebe, LEED® AP BD+C
Land Planner

CHRIS HART & PARTNERS, INC

115 N. Market Street
Wailuku, Maui, Hawaii 96793
voice: 808.242.1955 x556
facsimile: 808.242.1956
direct: 808.270.1556
www.chpmaui.com

Warren Bisbee
repbis2@Yahoo.com
Phone: (916)408-0240
Fax: (916) 408-0250
Cell Phone: (916) 672-7253

From: Patrick Quigley <pquigley@clublespri.com>
To: 'Warren Bisbee' <repbis2@yahoo.com>
Cc: Tom Quigley <tomq@khco.com>; Jim Quigley <jqq@khco.com>
Sent: Wednesday, June 5, 2013 9:04 AM
Subject: kahana sunset

Warren, I received a notificiation in the mail from chris harts office on maui that there is a community informational meeting for the kahana sunset environmental assessment - for shoreline and site improvements for the sea wall repairs.to beheld on july 16th at the Keonenui Room at KS. I received this notice because I own the house across the st. from kahana sunset still and this is a mailer to "Neighboring Property Owners".

It appears that the ks is applying to the county for permits for shoreline improvements and this meeting is about taking input from neighbors.
It discusses the removal of existing failing seawall and replacement with a structurally engineered retaining wall 10 feet mauaka or mountainside of the existing seawall. It also discusses replacing 300 feet of existing 36 inch stormwater drain line that discharges into the ocean fronting kahana sunset. And finally it discusses a neighborhood beach access path that will be provided on kahana sunset property along its southern boundary from lower road to the ocean.
The proposed path will be constructed with compacted gravel and will be gated at both ends.

Here are my questions:
1. who is attending this meeting from kahana sunset? Who from the county is hosting the meeting?
2. is this in reference to the wall that is falling down into the ocean on the north end of our beach adjacent to the stormdrain?
- hopefully this is true because that area looks so awful. So I assume this area will be cleared out and a new wall built 10 feet closer to the mountain. Yes this will give us more beach.
- I am not sure anyone knows this but the old swimming pool that used to be in the middle of the courtyard between lower B building and F building was simply filled in and may be in the direct path of the proposed seawall construction. I assume this is concrete.
3. who pays for the replacement of the storm drain ? why does 300 ft of this need to be replaced?
4. who pays for the beach access - this is between KS and the schweitzers property. Will it be fenced along the way? If on ks property it will be running along the south end of F building and how will that intersect with the
Beach area that may be 5 feet below grade at this point? How is the kahana sunset handling liability insurance along this pathway? Now there will be 2

gates, one at the top, one at the bottom.
I assume they wont be locked? Whats the purpose of the gates if they cannot be locked? How will this impact the use of the kahana sunset chairs on the beach.
Will there be need for additional security at KS - what about use of outdoor showers, etc.. Has anyone contacted the Schweitzers to see how they feel about the location of the beach access?

I think it will be great to get the wall fixed. Do you expect an assessment? The beach access has always been an issue - is it accessible now? Are we giving the county a permanent easement to use our property?

Thanks for your info Warren, you always seem to have access to everything.

Patrick Quigley
Club Lespri
435-645-9696 ph
1765 Sidewinder Drive
Park City, Utah
84098
http://www.clublespri.com/
http://www.lespriresorts.com/

NEIL ABERCROMBIE
GOVERNOR OF HAWAII

WILLIAM J. AILA, JR.
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

GUY KAULUKUKUI
FIRST DEPUTY

WILLIAM M. TAM
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAHUHIHEWA BUILDING
601 KAMOKILA BLVD, KAPOLEI HI 96707

May 7, 2012

Lisa Rotunno-Hazuka
Archaeological Services Hawaii, LLC
1930 A Vineyard Street
Wailuku HI 96793

LOG NO: 2012.0765
DOC NO: 1205JP02
Archaeology

Dear Ms. Rotunno-Hazuka:

SUBJECT: **Chapter 6E-42 Historic Preservation Review-**
Archaeological Monitoring Plan
Alaeloa Ahupua'a, Lahaina District, Island of Maui
TMK (2) 4-3-003:015 (por.)

Mahalo for the opportunity to review the draft plan titled *Archaeological Monitoring Plan for the Repair & Replacement of Sea Walls and Demolition of Concrete Stairway TMK: 4-03-003:015, Alaeloa Ahupua'a, Lahaina District, Island of Maui* by Lisa J. Rotunno-Hazuka and Jeffrey Pantaleo (March 2012). This document was received by our office on March 20, 2012.

We recommend an archaeological monitoring program be initiated for the proposed improvements project at Kahana Sunset; therefore, thank you for submitting the subject plan. The proposed work will occur within isolated sections of the developed 4.467 acre parcel.

This monitoring plan outlines the proposed objectives and procedures that will be implemented to prevent damage to unknown sites including the identification and documentation of any newly discovered archaeological and cultural features. The plan meets the requirements of Hawaii Administrative Rules §13-279 and is accepted. Please send one hardcopy of the document, clearly marked **FINAL**, along with a copy of this review letter and a text-searchable PDF version on CD to the Kapolei SHPD office, attention SHPD Library.

Please contact Jenny Pickett at (808) 243-5169 or Jenny.L.Pickett@Hawaii.gov if you have any questions regarding this letter.

Aloha,

Theresa K. Donham
Archaeology Branch Chief

cc: Chris Hart & Partners, Attn: Raymond Cabebe Via email: RCabebe@chpmaui.com
County of Maui, Department of Planning Via fax: (808) 270-7634
County of Maui DSA via fax to: (808) 270-7972

EXHIBIT 38

~~APPENDIX I~~

Archaeological Monitoring Plan

EXHIBIT 38

ARCHAEOLOGICAL MONITORING PLAN FOR THE REPAIR & REPLACEMENT OF SEA WALLS AND DEMOLITION OF CONCRETE STAIRWAY TMK: 4-03-003: 015 ALAELOA *AHUPUA'A;* LAHAINA DISTRICT ISLAND OF MAUI

FOR: Ms. Jaqueline Scheibel of Kahana Sunset

BY: Lisa J. Rotunno-Hazuka (B.A.)
and Jeffrey Pantaleo (M.A.)

March 2012

ARCHAEOLOGICAL SERVICES HAWAII, LLC.
1930 A Vineyard Street
Wailuku, HI 96793

"Protecting, Preserving, Interpreting the Past, While Planning the Future"

INTRODUCTION

At the request of Ms. Jaqueline Scheibel, and per the likelihood of a recommendation by the State Historic Preservation Division (SHPD), Archaeological Services Hawaii, LLC (ASH) of Wailuku has prepared this monitoring plan for all ground disturbing activities to be conducted at the Kahana Sunset, Alaeloa *ahupua'a*, Lahaina District, Island of Maui, TMK: (2) 4-3-003: 015 (Figures 1 and 2).

The proposed improvements will undergo governmental review through the environmental assessment (E.A) process. These improvements consist of the installation, repair and replacement of sea walls and the demolition of a concrete stairway (Figure 3). In the event that additional offsite work is necessary for the completion of this project, this monitoring plan would cover all additional work.

PROJECT AREA DESCRIPTION

The project area is located along the shoreline in West Maui. It is situated at 4909 Lower Honoapiilani Road at the Kahana Sunset. The subject area is improved with condominium structures, pool, ancillary buildings, landscaping and underground utilities. Additionally, two Land Commission Awards, LCA, (LCA 4807 Ap. 3 and LCA 4807:4) are present within the project area boundaries and likely represent former habitation and agricultural activities (see Figure 2). No known inventory survey has been conducted of the subject parcel, however several properties along the coast undergoing re-development have documented subsurface historic properties (Ka'anapali Villas, Marriott, and etc.).

Four archaeological investigations were conducted in close proximity to the subject parcel. In 2003, just northeast of the project area, and AIS with 5 backhoe trenches was performed by Scientific Consultant Services, Inc., at TMK 4-3-003:025 with negative findings (Dega and Zachman 2003). An archaeological inventory survey (AIS) was conducted by Xamanek Researches in early 1999 for a 1.4 mile section of Lower Honoapiilani Highway extending from Napilihau Street to Ho'ohui Road and includes the portion of the highway fronting the project area. No historic properties were identified in close proximity to the Kahana Sunset, however three sites; Site 4797 (pre-Contact habitation deposit) and 4798 (historic retaining wall and shoulder barrier wall) were documented *makai* of Puamana Place and another historic retaining wall, Site 4799, was identified *makai* of the highway by

Hui Road D (Fredericksen and Fredericksen 2000). At TMK 4-3-003:043, further northeast of the subject parcel, an archaeological assessment was undertaken by CRM Solutions Hawaii, Inc. A total of 5 backhoe trenches were executed and no historic properties were documented (Conte 2005). In 1992, an AIS with two test units, was performed by Archaeological Consultants of Hawaii, Inc., at TMK 4-3-003:108 and 110 (southeast of project area). No archaeological sites were recorded and per Kennedy et. al., the negative findings were likely due to the parcel being formerly cultivated in pineapple.

EXPECTABILITY OF SUBSURFACE SITES

Based on the above information, and most importantly, that recent re-developments along the shoreline have documented numerous significant subsurface historic properties; it is possible that subsurface pre-Contact burials, remnant traditional cultural layers, historic refuse deposits, and buried architecture from both the pre-Contact and historic periods may be extant; thus all ground-disturbing activities shall be monitored according to the following monitoring plan.

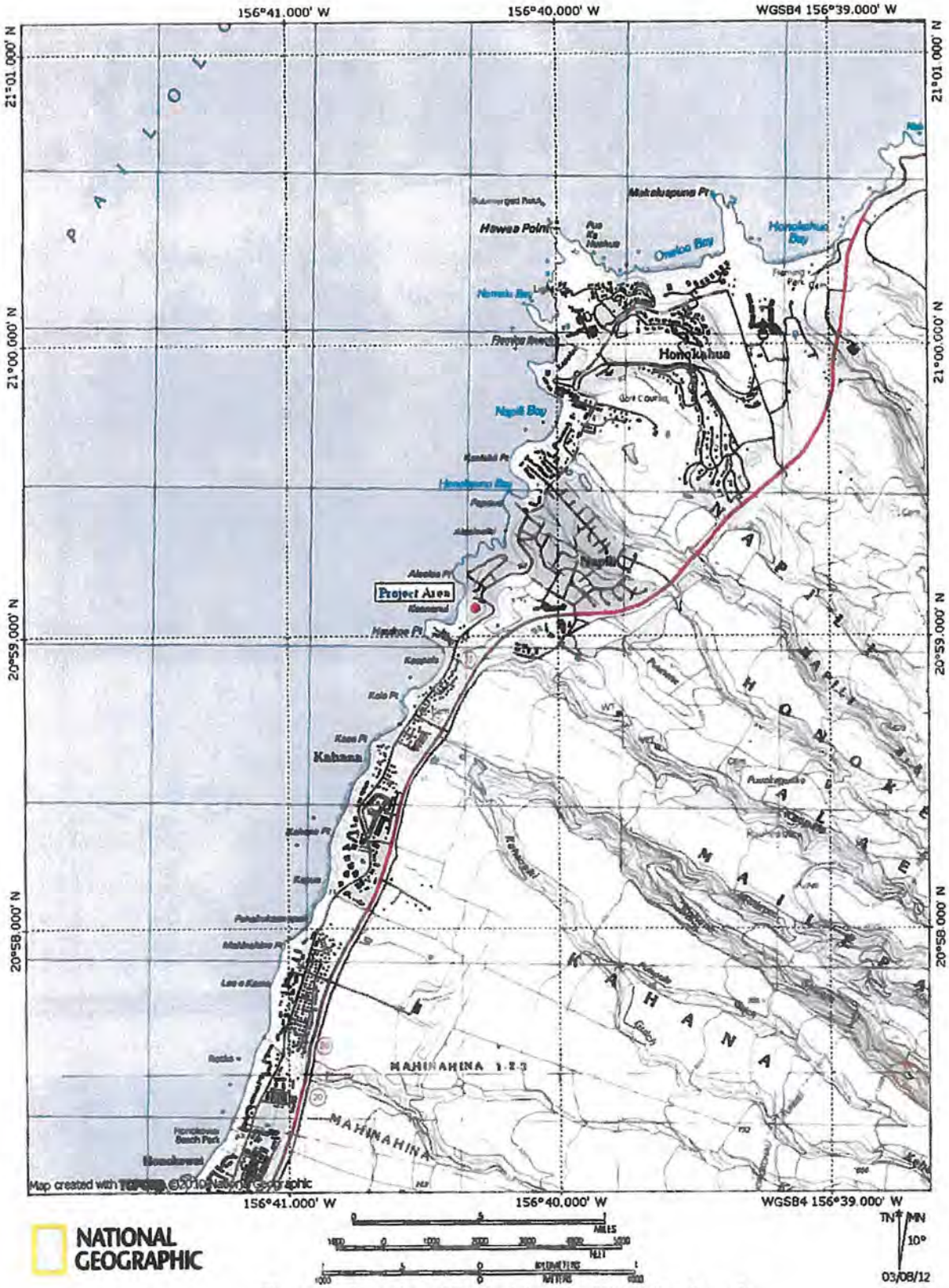


Figure 1. Location of Project Area on USGS Quadrangle

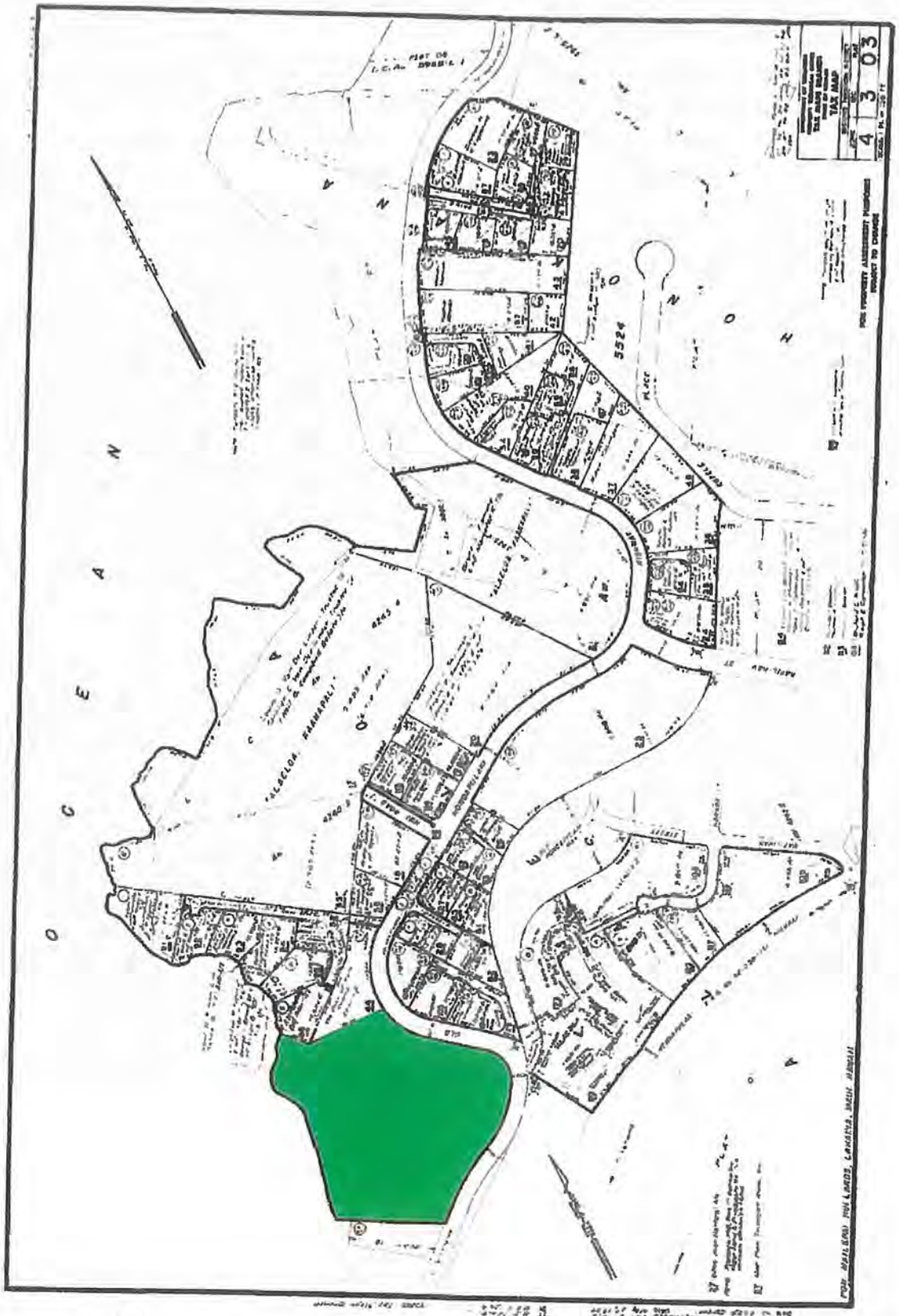
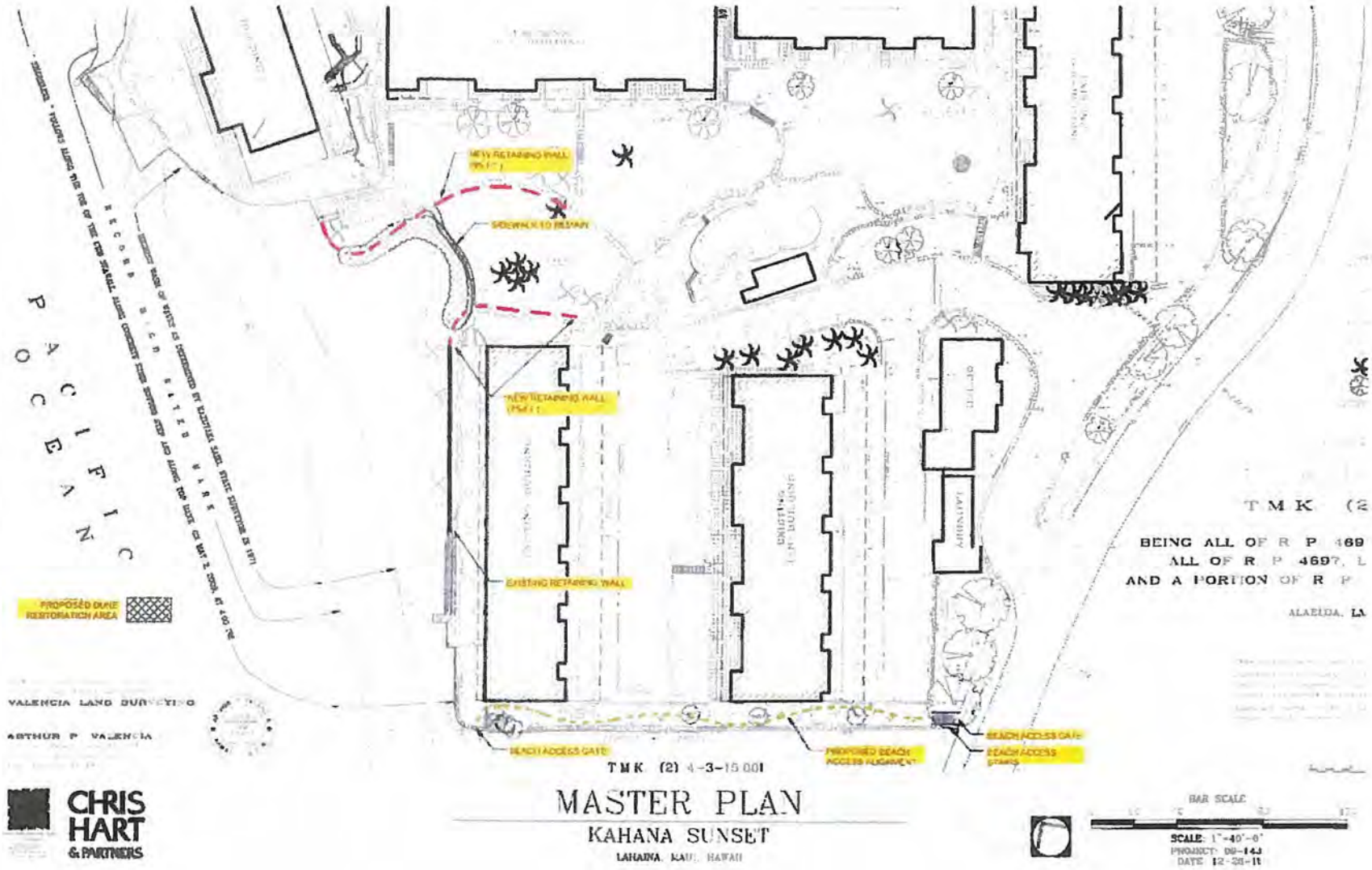


Figure 2. Location of Project Area on Tax Map Key



MASTER PLAN

KAHANA SUNSET

LAHAINA, MAUI, HAWAII

Figure 3. Project Area Master Plan

MONITORING PLAN

The construction plans call for excavations ranging from 2.0 to 7.0 feet in depth. Full-time monitoring will be the protocol for this project. In the event that rock, sterile fill deposits and or the water table is encountered, monitoring procedures may need to be adjusted; however no changes may be made without consultation and approval by SHPD via telephone and or in writing. SHPD will also be notified of the onset and completion of the proposed undertaking.

One archaeological monitor per piece of ground disturbing equipment is the protocol for this monitoring project. Dependent on availability, Maui resident archaeologists will be assigned to this project. Prior to the commencement of construction, all pertinent parties including but not limited to construction and archaeological personnel will be informed of the monitoring procedures as stipulated in the monitoring plan, as well as the monitors' authority to halt work in the vicinity of a find. In the event that subsurface sites are exposed during construction, ground-disturbing activities in the immediate area will temporarily halt and project activities may shift to other areas of the project. Once the archaeologist makes an assessment, they will then consult with SHPD to determine the appropriate mitigation measures for the find. The area around the site shall be protected by erecting orange fencing or yellow caution tape. The site will be recorded utilizing all standard archaeological methods and procedures. Stratigraphic profiles will be drawn, photographs will be taken, and soil samples collected not only from the subsurface site, but from selected locations within the project area. If nighttime work is performed, the general contractor must notify the consulting archaeologist at least 3 days in advance. The archaeological monitor has sole discretion to determine if lighting is adequate to perform visual inspections of the soil.

If historic bottles are found they are to be collected by the archaeologist. No bottles may be collected or taken by any construction worker.

In the event that human remains are inadvertently exposed during this undertaking, the aforementioned procedures of halting and securing the site will be performed. After an initial assessment is made by Mr. Hinano Rodrigues of SHPD, and members of the Maui/Lana'i Islands Burial Council-MLIBC (if the remains are believed to be Native Hawaiian), procedures for documenting the burial find shall be undertaken. These

mitigation measures may include mapping and collecting displaced human skeletal remains, however no human skeletal remains will be collected without authorization from SHPD. Additional documentation will include, raking and screening of the area to collect all displaced human remains, and excavations to ascertain the context (*in situ* or displaced) and number of individuals represented by the skeletal remains.

PROCEDURES FOR DISPLACED HUMAN SKELETAL REMAINS

The procedures for exposed skeletal remains and possible burial pit outlines are presented below.

1. Upon identification of displaced human remains, a possible burial pit outline, or basalt and coral manuports all construction activities in the immediate area of the find is temporarily halted.

2. SHPD and the MLIBC shall be notified.

3. Mark the perimeter of the avoidance area with yellow caution tape, and or orange construction fencing and cover the remains to protect them from the elements

4. Extend a baseline through the center of the dispersal area.

5. After notification and concurrence with SHPD, mark all displaced remains with pin flags and produce a plan view map. Locate and identify displaced remains and only collect the displaced remains if authorized by SHPD personnel.

6. If a concentration is identified, map the concentration and leave in place for determination of disposition and controlled manual excavations, as warranted.

7. Manually rake bulldozed or other mechanically produced tailings and screen push piles to collect all displaced and fragmented remains.

8. If no concentration was identified and raking is complete, skip to blade testing on item #13.

9. Complete an osteological inventory of the collected remains to determine the components that may be left *in situ* or missing.

10. If a concentration or possible burial pit was identified, notify SHPD of the possible burial feature and ask for written authorization to test the possible burial feature. Once authorization for testing has been received by SHPD, place a 2.0 by 2.0 meter controlled test unit, centrally locating the concentration within the test unit. Clean the surface with a trowel to determine if a pit outline is present. Map pit outline.

11. If SHPD has provided written authorization to test an *in situ* burial, excavate the *in situ* portion to identify any articulation, document the articulated portion within the pit outline, and collect all clearly displaced remains. Articulated remains and those in an anatomically correct position, shall be left in place until a disposition determination can be made by SHPD in consultation with the MLIBC.
12. Fill out all test excavation and burial forms and draw a plan view map of the *in situ* remains. Then cover remains with a thin layer of sand (if SHPD and MLIBC have seen the feature) and or tarp.

13. Conduct mechanical blade testing in potential areas of further discoveries. Blade testing is conducted by removing shallow (2-6") lifts over a predetermined area.

After the above referenced procedures have been performed, a Burial Treatment Plan will be prepared in consultation with the owner, SHPD and the MLIBC (if the remains are believed to be Native Hawaiian).

Upon completion of the fieldwork, all necessary lab procedures including but not limited to processing, cataloguing and analyses of artifacts and photographs; analyses of soil samples as warranted and submitting of charcoal samples for radiocarbon dating will be performed. All analyses will be synthesized into a final monitoring report, and the report shall be submitted within 180 days of the completion of fieldwork. Copies of this report will be sent to the State Historic Preservation Division offices on Oahu and Maui for their review and comments.

All notes, photographs and artifacts will be archived at the offices of Archaeological Services Hawaii, LLC at 1930 A Vineyard Street, Wailuku, HI 96793.

REFERENCES

Conte, Patty

2005 *Archaeological Assessment Report for TMK (2) 4-3-03:043, Mailepai Ahupua`a, Lahaina District, Island of Maui.* CRM Solutions. Makawao.

Dega, Michael and John Zachman

2003 *Archaeological Inventory Survey on a Parcel in Napili, Alaeloa Ahupua`a, Kaanapali District, Maui Island (TMK:4-3-003:025).* Scientific Consultant Services, Inc., Honolulu.

Fredericksen and Fredericksen

2000 *Archaeological Inventory Survey of The Lower Honoapi`ilani Road Improvements Project Corridor (TMK 4-3-03; 4-3-05; 4-3-10; 4-3-15) Lahaina District, Maui Island,* Xamanek Researches, Pukalani.

Kennedy, Joseph, Laura Reintsema, Patrick J. Trimble, MaryAnne B. Maigret

1992 *Archaeological Inventory Survey with Subsurface Testing Report for a Property Located at TMK: 4-3-03:108 and 110, Alaeloa Ahupua`a, Lahaina District, on the Island of Maui.* ACH, Haleiwa.

APPENDICES FOR CPA SECTION

ATTACHMENT 2

A. COUNTY OF MAUI 2030 GENERAL PLAN

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.

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:	

EXHIBIT 39

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.

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 *Maui Island Plan* of the County's *2030 General Plan Update* (March 2010). This report provides an analysis of the potential impacts of the subject project.

B. MAUI ISLAND PLAN

The 2030 update to the General Plan of the County of Maui 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 determines the appropriateness of discretionary development proposals. The following Goals, Objectives and Policies of the 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) 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.

C. 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. 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.

ATTACHMENT 3

MEMORANDUM

To: File
Date: July 16, 2013
Subject: Neighborhood Informational Meeting at Kahana Sunset

Purpose:
This meeting was encouraged by the Maui County Planning Department by letter dated March 25, 2013 to inform the neighbors of the improvements proposed by the Kahana Sunset AOAO to its property.

Mail Out & Responses:
A letter, dated May 30, 2013, was mailed to all neighboring property owners (233) within 500 feet inviting them to a presentation at the Keonenui Room at the Kahana Sunset from 12 Noon to 2:00 PM on Tuesday, July 16, 2013. The letter summarized the proposed actions. Owners were encouraged to submit written questions ahead of time so responses could be prepared and addressed at the meeting. Two owners responded by email and their questions were addressed by email. The questions covered the change in zoning, the beach access path, the drainage improvements, and the replacement seawall. There were two phone calls received by Chris Hart & Partners regarding the scope of the work that were addressed verbally. The callers seemed satisfied with the answers.

Informational Meeting:
The meeting was hosted by the co-chairs of the Kahana Sunset Long Range Planning Committee, Ms. Jacqueline Scheibel and Mr. Keith Meyer, along with Board Treasurer Mr. Ken Gadicke and Resident Manager Ms. Karen Krenz. Mr. Jordan Hart and Mr. Raymond Cabebe from Chris Hart & Partners, Inc., planning consultants for Kahana Sunset, were also there.

There were five (5) attendees: Mr. Glenn Kamaka, Mr. John Rogers, and Mr. Clay Smith represented the Door of Faith Church. Mr. Steve Moses is a property owner on Hui Road F and Ms. Janet Bacon is an employee at Kahana Sunset.

Mr. Keith Meyer conducted a slide presentation that covered the background, proposed improvements, the permit processing required to authorize the improvements, and a tentative schedule. After the presentation, the floor was opened for questions and comments. The Door of Faith representatives were particularly interested in the neighborhood beach access path and were happy that Kahana Sunset was proposing to construct it as they are long time residents of the area. A question was posed about parking for beach access. The response was that there is no available or convenient parking onsite. Street parking on Lower Honoapiilani Road is available, but is technically not legal. The County has been approached about revising the ordinance to allow for parking on the road. There are other beach access paths that only have street parking. Future planned improvements to the road could include street parking.

The group was led around the property to see where the improvements would occur. The mood was generally supportive with positive comments and no objections voiced.

[redacted]

Wave Climate Study

EXHIBIT 40

WAVE CLIMATE STUDY FOR KAHANA SUNSET

Prepared for:

Apartment Owner Association Of
Kahana Sunset Condominium Complex
Ka'anapali, Maui

Prepared by:
Marc M. Siah & Associates, Inc.

August 2011

Marc M. Siah & Associates, Inc.

Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813

WAVE CLIMATE STUDY FOR KAHANA SUNSET

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EXECUTIVE SUMMARY

Kahana Sunset Condominium Complex on the northwest Maui coast experiences problems with chronic erosion of the beach and wave overwash of the existing sea wall foundations and other coastal fortifications along the coastline. In order to address the problem, the AOAO initiated this wave climate study to evaluate wave transformation process for swells and wind generated waves, as they approach the area and impinge upon the coastline. The area is subject to north swells and trade wind waves which undergo significant transformation due to shallow shelves, headlands, and the fringing reefs. A reef system, which extends about 1 km offshore, further complicates the nearshore wave conditions. This study defines the wave climate at northwest Maui from 10 years of hindcast data and provides insights into the nearshore wave conditions through high-resolution modeling of the coastal processes. Trade wind waves from the east and northeast prevail most of the year. Because of large oblique incident angles to the shore, refraction typically reduces the height of the wind waves to 1 meter (3 feet) or less before reaching the reef. The wind waves do not usually present a coastal hazard at Kahana Sunset. This study considers two swell conditions from the 10 years of hindcast data, namely, the peak swell event, as well as a moderate event occurring in the early and late swell season, for detailed site-specific analysis. Results of computer simulations for these two swell events indicate that a major swell event from the north can produce waves large enough to inundate the shore line fronting the property and scour the seawall foundation. The uneven wave height and oblique wave direction at the shore generate a clockwise circulation in the embayment that together with wave actions erode the beach fronting the property. The moderate swell, in contrast, might not be an erosion hazard, but is sufficient for the surge to reach the seawall foundation and may cause erosion and undermining of the footings of the structures over time.

1.0 Introduction

Marc M. Siah and associates, Inc. was commissioned by the Kahana Sunset Condominium AOAO, to conduct a wave transformation study for deepwater waves as they approach the North West Maui shoreline, and impinge upon the coast at or in the general vicinity of the Kahana Sunset Condominium. The Condominium complex located on the northwest of Maui coast 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. Maintenance of the beach and the existing coastal fortifications pose a serious insecurity and financial burden on the AOAO resources. It is inferred therefore, that a better understanding of the wave climate nearshore of the property will help to enhance prudent planning for coastal fortification and maintenance of the beach front infrastructure for Kahana Sunset condominium development.

This report is prepared based on wave hind casting data and computer model runs for wave transformation by Applied Research International, which has compiled the hind cast data and a working wave transformation model. The study is conducted utilizing a 10-year deep water wave hindcasting data to determine the significant wave heights and directions at appropriate locations offshore of the general vicinity of the project site. Wave hindcasting refers to a method of analysis by which wave data can be derived from wind filed information collected at various locations and buoys around the globe from the knowledge of the wind speed, fetch, and duration. The hind cast wave data is then used to prepare scatter diagrams for incoming swells and wind generated waves to determine the prevailing wave directions and heights offshore of the project site. Subsequently, two wave conditions, namely peak swell and moderate swell, are depicted as representative major and moderate swell events, respectively, for wave transformation simulation in the embayment between 50 meters (150 feet) depth contour line and the coastline. The wave transformation process which entails, refraction,

diffractions and shoaling of waves as they approach the coast, for these two wave climates, would provide the magnitudes of wave setup, water elevations and flow speed in the embayment and along the coastline fronting the property. These results can then used to plan coastal fortification, repair, and or nourishment of the beach.

Hawaii's mid-Pacific location and its massive archipelago give rise to unique wave climate not seen in other places. The wave climate and buoy resources around the Hawaiian Island chain, are illustrated in Figure 1.

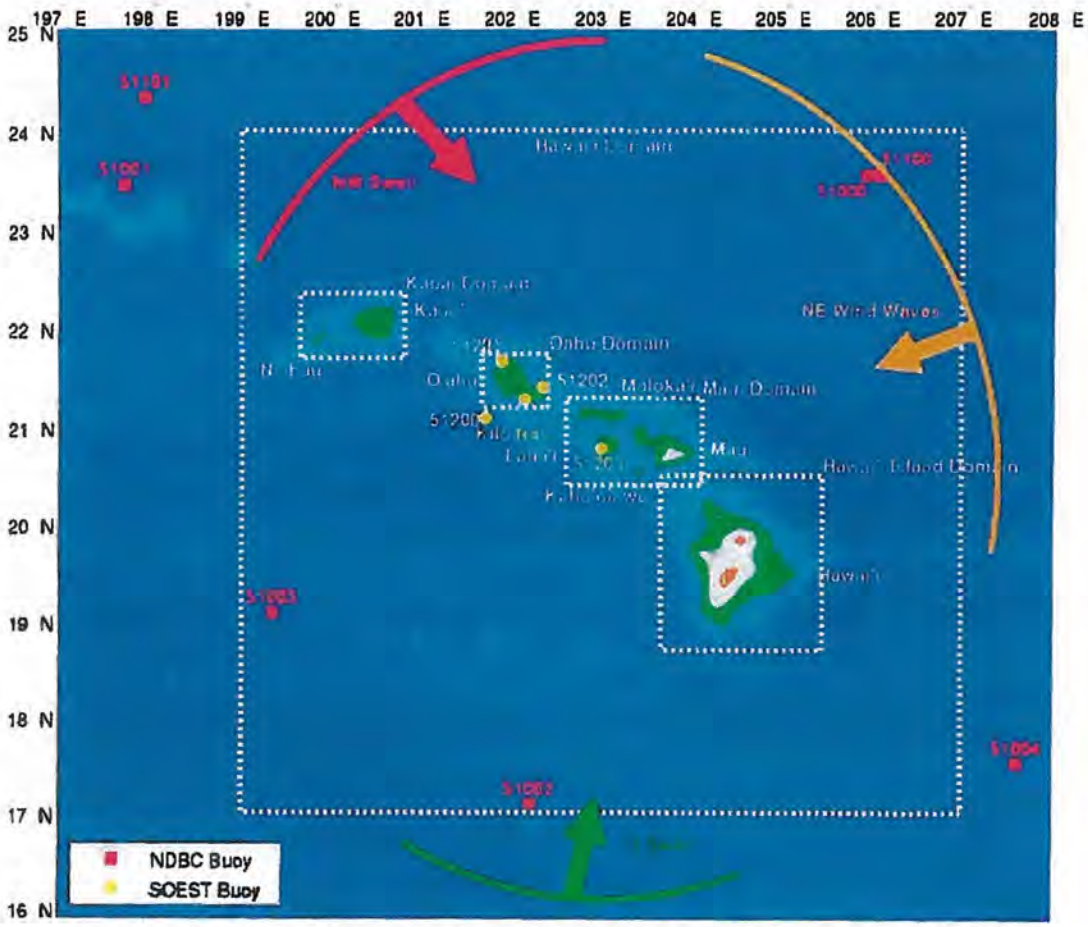

Figure 1- Hawaii Wave Climate and Buoy Resources (Stopa et al., 2011b)

Typically, extratropical storms near Kuril and Aleutian Islands generate northwest swells reaching up to 5 meters (15 feet) significant wave heights in Hawaiian waters during winter months. The south facing shores of the islands chain, however, experience more gentle swells from extratropical storms off of Antarctica during the summer months. As reported by Yang and Chen (2003), the Hawaiian Islands create a local diurnal wind system and modify the northeast trade winds all year round. The speeding up of the winds in channels and around the headlands further augment the far-field wave energy and creates localized wave patterns that are known to be treacherous to mariners (Stopa, et al., 2011a, b).

Review of existing buoys operated by the National Data Buoy center (NDBC) and the UH School of Ocean and Earth Science and Technology (SOEST) indicate that theses buoys are mostly at locations either off the island chain, or at nearshore locations not directly relevant to the project site. For this study, therefore, we have utilized the 10-years hindcast data as compiled and presented by Stopa et al (2011b) in "Assessment of Wave Energy Resources along the Hawaiian Islands Chain", to investigate the wave climate in northwest Maui and the vicinity of the project site. Using a Boussinesq Model developed by Lynett et al (2002), the hindcast wave data is then subject to transformation process consisting of wave refraction, diffraction and shoaling, to describe and present detailed wave conditions at the project site.

2.0 Wave Climate at Northwest Maui

Arinaga and Cheung (2011) developed 10 years of hindcast global wave data and Stopa et al. (2011b) extended the data around the Hawaiian Islands to higher resolution for the National Marine Renewable Energy Center. They utilized a system of nested global, regional, and island-scale spectral wave models based on WW3 of Tolman (2008) and SWAN of Booij et al. (1999) with wind forcing from the NOAA Final Global Tropospheric Analysis (FNL) and the UH Weather Research and Forecasting (WRF) model of the Hawaiian Islands. Figure 1, illustrates the setup of the island-scale SWAN domains within the Hawaii regional WW3 domain, which in turn is nested inside a global WW3 domain. The model system accounts for all distant swells and wind waves as well as their transformation around the Hawaiian Islands due to shoaling, refraction,

and local winds. The hindcast significant wave height from Stopa et al. (2011b) has a root-mean-square error of 0.23-0.49 m against measurements at the 12 buoys shown in Figure 1.

The hourly wave hindcast data from 2000 to 2009 covers the entire globe at 1°×1.25° resolution, which is refined to 1 km square around the Hawaiian Islands. Scatter diagrams of the wave data at 200-meter (600 feet) water depth location (156.715°W 21.015°N) offshore of Kahana Sunset are prepared and presented in Figures 2 through 4.

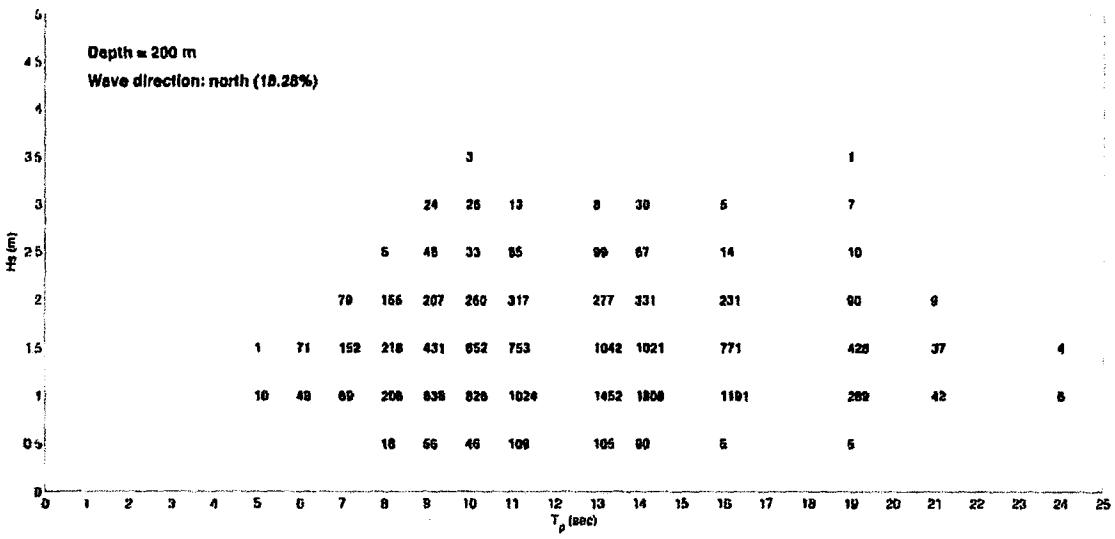

Figure 2- Scatter Diagram for Incident Waves from North Direction at 200 Meters Water Depth offshore of Northwest Maui

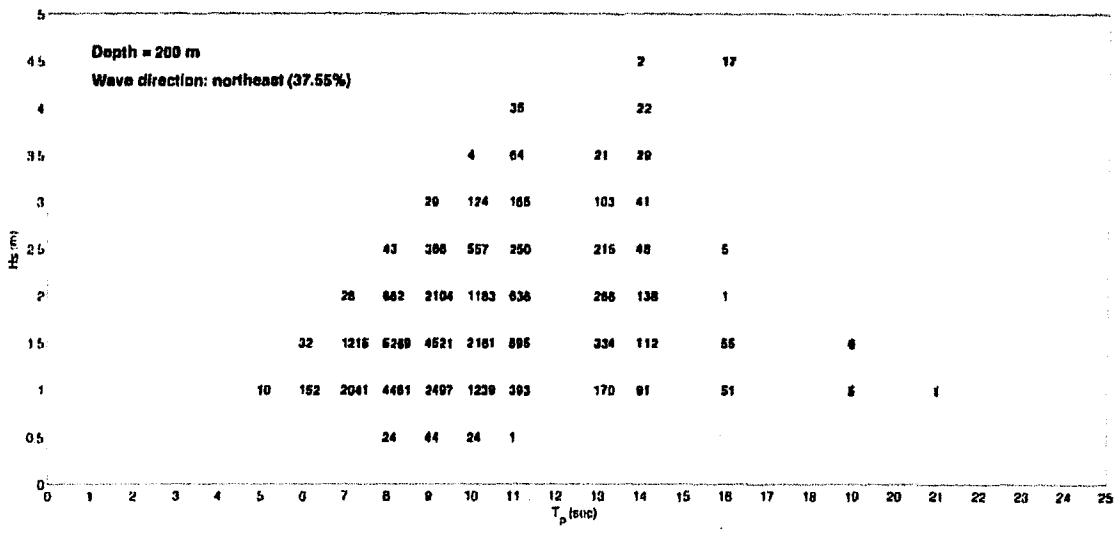

Figure 3- Scatter Diagram for Incident Waves from Northeast Direction at 200 Meters Water Depth offshore of Northwest Maui

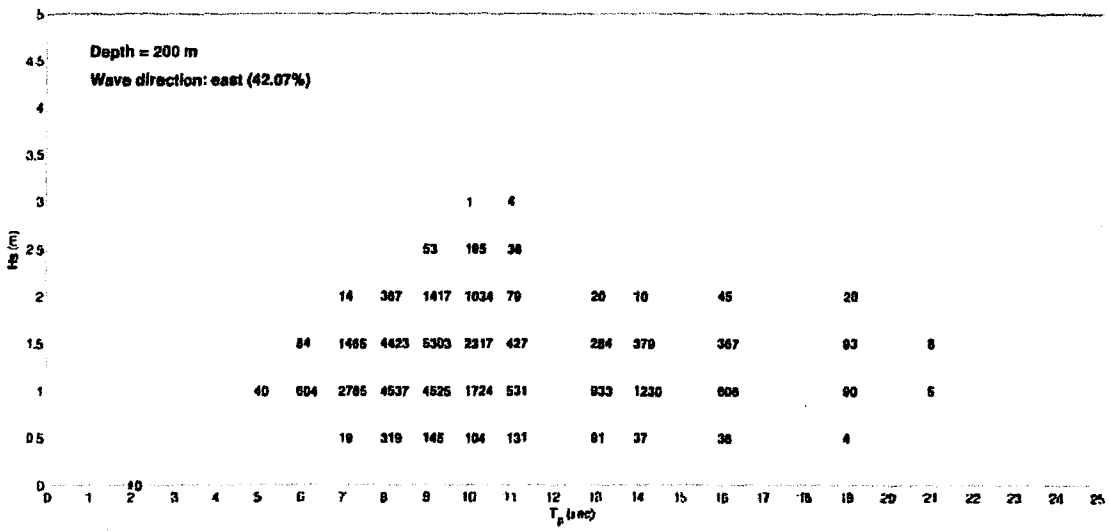

Figure 4- Scatter Diagram for Incident Waves from East Direction at 200 Meters Water Depth offshore of Northwest Maui

Each entry denotes the number of hours for the corresponding significant wave height and peak period in the 10 years of continuous data base. Because of sheltering effects by east Molokai and west Maui, waves approach the area from a direction between north and east 97% of the time. The south swells, after being refracted by the shallow shelf to the south and overshadowed by the year-round wind waves, account for the remaining 3% of the data.

The incident waves from the north, which account for 18% of the data, are primarily swell events with periods of 10 seconds or greater. The incident wave height is smaller compared to the open ocean swells because of sheltering by east Molokai. The project location, however, is exposed to some severe late-season swells, when extratropical storms migrate from Kuril islands towards the Aleutian Islands. The majority of the waves from the northeast and east, which have periods of less than 10 seconds, are wind waves generated by the year-around trade winds.

Waves from the north to east have to refract around the insular slope of northwest Maui before reaching Kahana Sunset. Similar scatter diagrams depicted in Figure 4 and Figure 5, show that 41% of the waves arrive at 50-meters (150 feet) water depth (156.688°W 20.992°N) from the north whereas 59% are from the northeast. The wave height is also further reduced at this location due to refraction at large oblique incident angles to the shore.

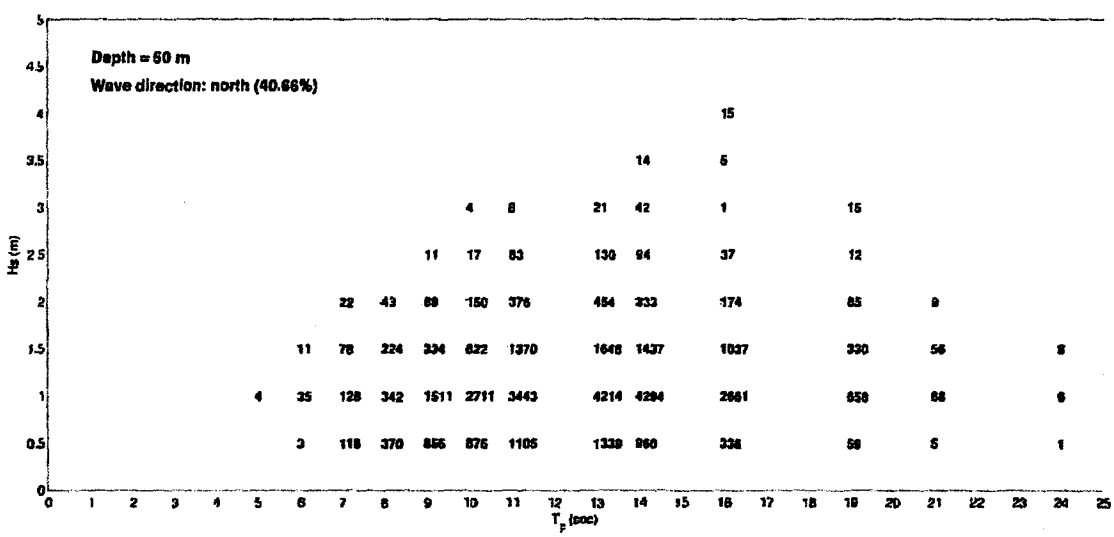

Figure 5- Scatter Diagram for Incident Waves from North Direction at 50 Meters Water Depth offshore of Northwest Maui

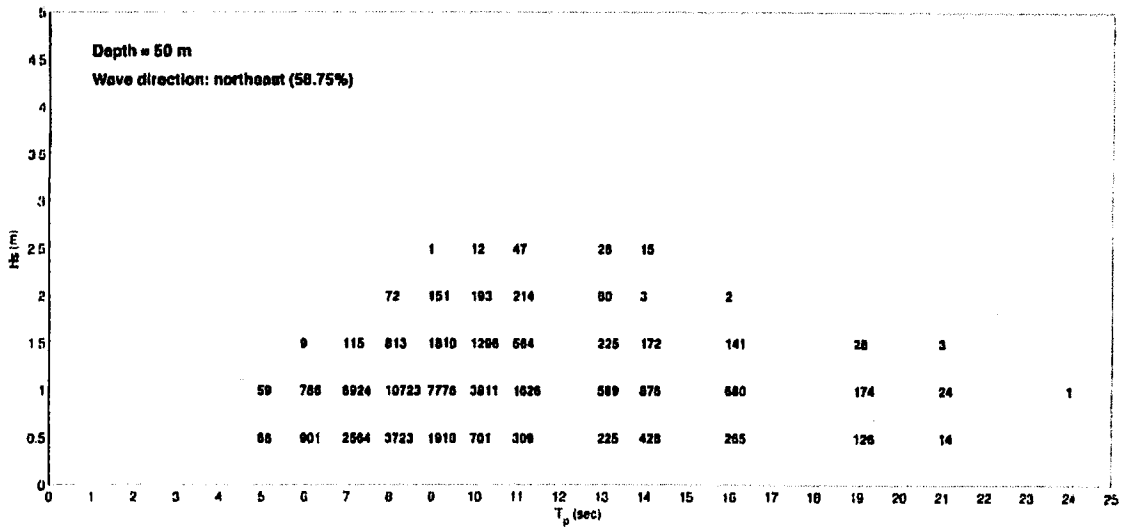

Figure 6- Scatter Diagram for Incident Waves from Northeast Direction at 50 Meters Water Depth offshore of Northwest Maui

As mentioned earlier in this report, Kahana Sunset coastline in specific and northwest Maui coast in general is subject to the north swells and trade wind waves which undergo significant transformation by shallow shelves, headlands, and fringing reefs. This transformation results in chronic erosion of the beach and wave overwash of the seawall foundation. In reference to the discussion in the previous paragraphs, the wave data at 50-meters (150 feet) water depth is used as the input for Boussinesq computer model to simulate the wave-by-wave propagation and transformation in the Kahana Sunset embayment.

Typically, the wind waves have significant wave heights of less than 1 meter (3 feet) and are unlikely to have significant negative impacts on the coastline. We, therefore consider two representative swell events as summarized in Table 1, for determining the effects of wave transformation in the embayment on beach erosion and undermining of the coastal structures fronting the Kahana Sunset Condominium Complex. The first event, has the maximum significant wave height of 4 meters (12 feet) in the 10 years of hindcast data, and is representative of a major swell event which occurs once every few years. The second event has

a smaller wave height and a shorter period corresponding to a moderate, but more frequent event typically occurring in the early and late swell season that might produce hazardous conditions at the project site.

Event	Sig. Wave Height	Peak Period	Peak Direction
Peak Swell	4 meter (12 feet)	16 sec	7.5°
Moderate Swell	2 m (6 feet)	13 sec	7.5°

Table 1- Storm Events and Wave Parameters for simulation of Wave Transformation in Kahana Sunset Embayment

3.0 Wave Conditions at the Kahana Sunset

Wave transformation process over the reef and into the bay is accomplished using a Boussinesq model which accounts for wave refraction-diffraction around headlands, shoaling and breaking over the reef, and runup on the coast. Modeling of near-shore wave transformation requires high-resolution bathymetry and topography. Figure 7, shows the computational domain used, which includes a long stretch of coastline north of the project site to capture diffracted waves from the headlands. The digital elevation model consists of UH SOEST multi-beam data at 50 meter (150 feet) resolution, the National Elevation Dataset at 30 meters (90 feet) resolution, and most importantly, FEMA and USACE LiDAR data from the 40 meter (120 feet) water depth to the 15 meter (45 feet) elevation at 2 to 4 meters (6 to 12 feet) resolution. The bathymetric data for the area shows a reef system along the coastline that has significant influence on the nearshore wave field. We utilize the Boussinesq model of Lynett (2002), which was validated for application in Hawaii by Cheung et al. (2003), to describe wave-by-wave transformation from the 50-meters (150 feet) depth contour to the northwest Maui coast. The incident wave conditions from the hindcast data are specified near the north boundary in the form of a directional wave maker and the computation is performed for an event time of 25 minutes, which is sufficient for computation of wave statistics.

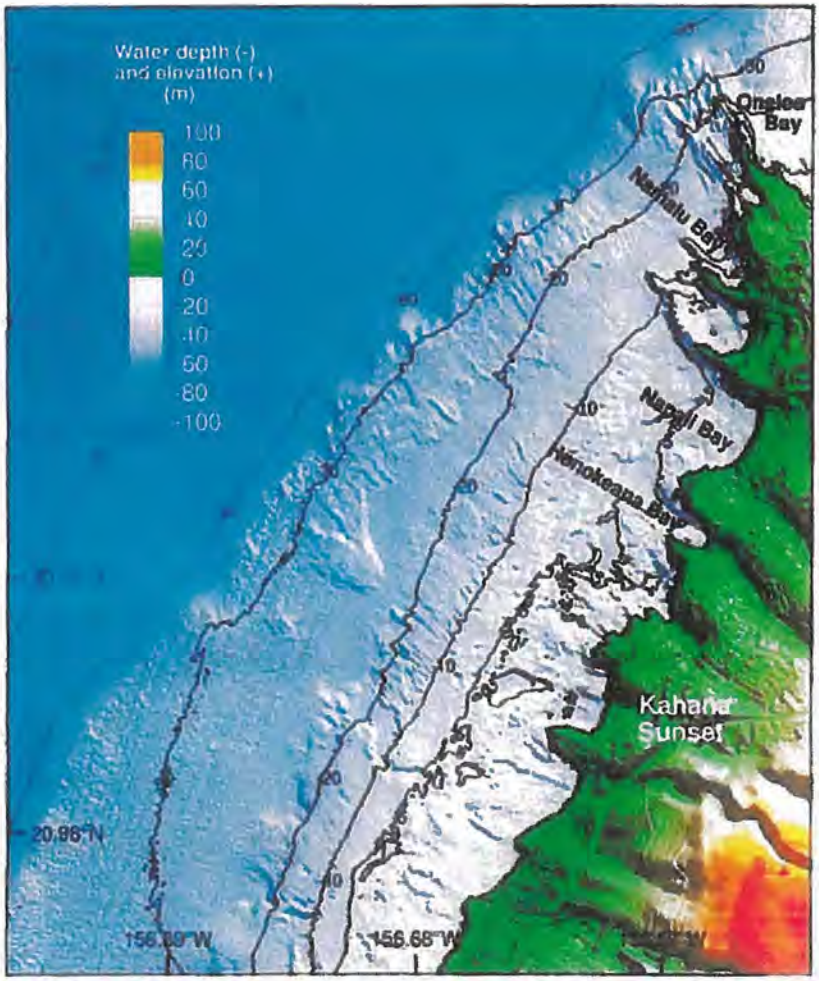

Figure 7- Computational domain and digital elevation model

The simulation of the peak swell event, i.e. 12 feet high wave undergoing transformation as it approaches the Kahana Sunset beach is accomplished using a finite-difference computer model with 10-meters (30 feet) grids. The computations are based on the Mean-Higher-High-Water (MHHW) set at approximately 0.45 meters (1.25 feet) above the mean sea level (MSL). A snapshot of the computed wave field as it embarks towards the land and approaches the coast is depicted in Figure 8.

Figure 8- Wave Transformation at Northwest Maui for the Peak Swell Event

The waves from the north refract and break over the reef before reaching Kahana Sunset with smaller amplitudes. The waves approach the embayment from the northwest at an oblique angle to the beach. Due to wave transformation the significant wave heights entering the Kahana Sunset embayment will range from 0.5 to 1 meter (1.5 to 3 feet) despite having a much larger value over the reef edge as shown in Figure 9. This reduction in significant wave height, not only indicates breaking of larger waves over the reef as they enter the embayment and approach the coastline, it also shows dissipation of some of the wave energy due to effects of nearshore bathymetry and topology. As the waves approach the shore they further shoal and ultimately break causing rising of water surface elevation in the embayment. The maximum surface elevations including tides and waves in the embayment thus increase from 1.3 to 1.8 meters (3.9 to 5.4 feet) northward along the shore, as illustrated in Figure 10.

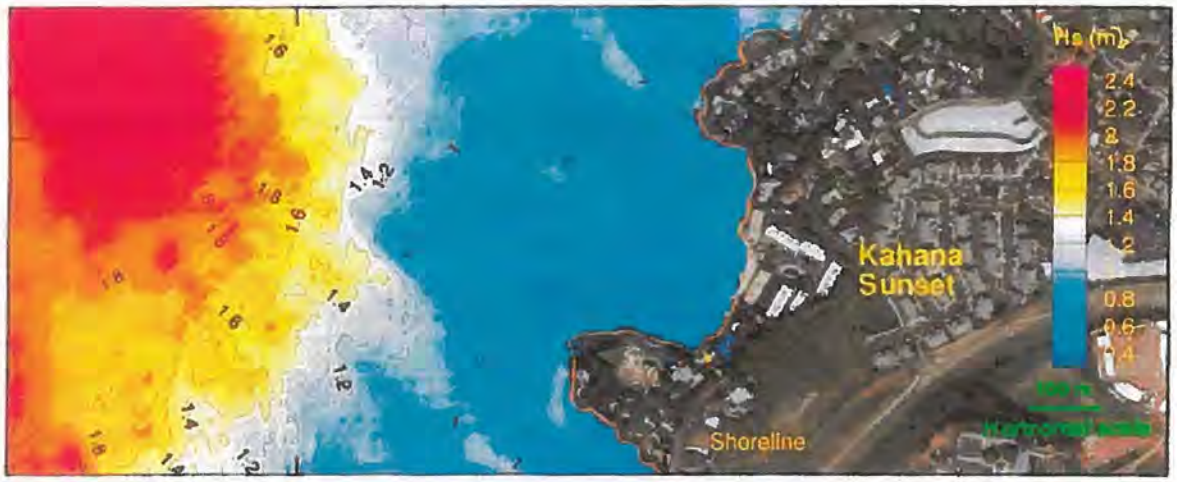

Figure 9- Significant Wave Height for the Peak Swell Event

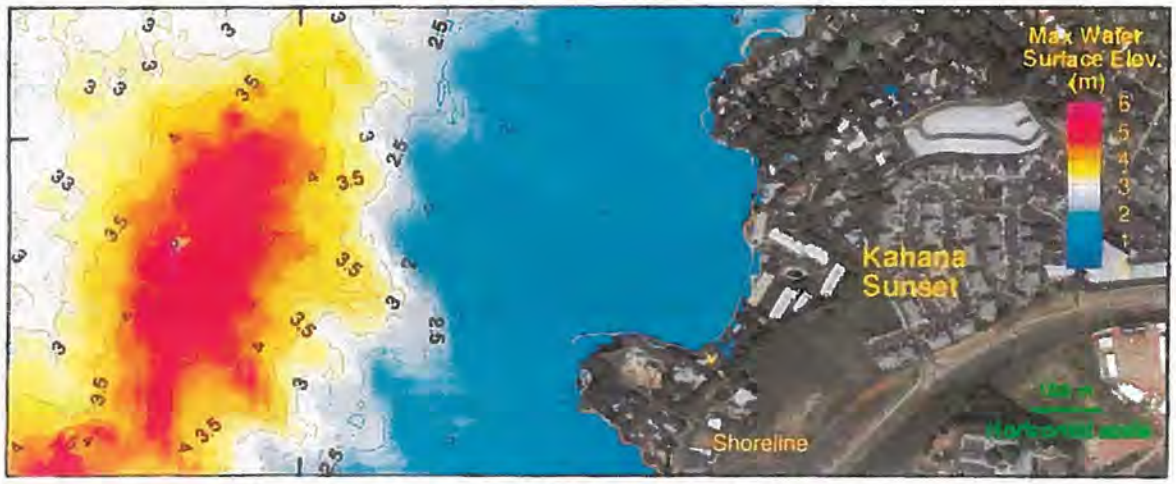

Figure 10- Maximum Water Surface Elevation for the Peak Swell Event

The wave setup which refers to the rise in water elevation due to breaking of the waves as they approach the coastline, as shown in Figure 11, amounts to less than 0.06 meter (0.18 feet). The wave setup is small because the wave height is relatively uniform over the reef flat extending approximately 400 m from the shore.

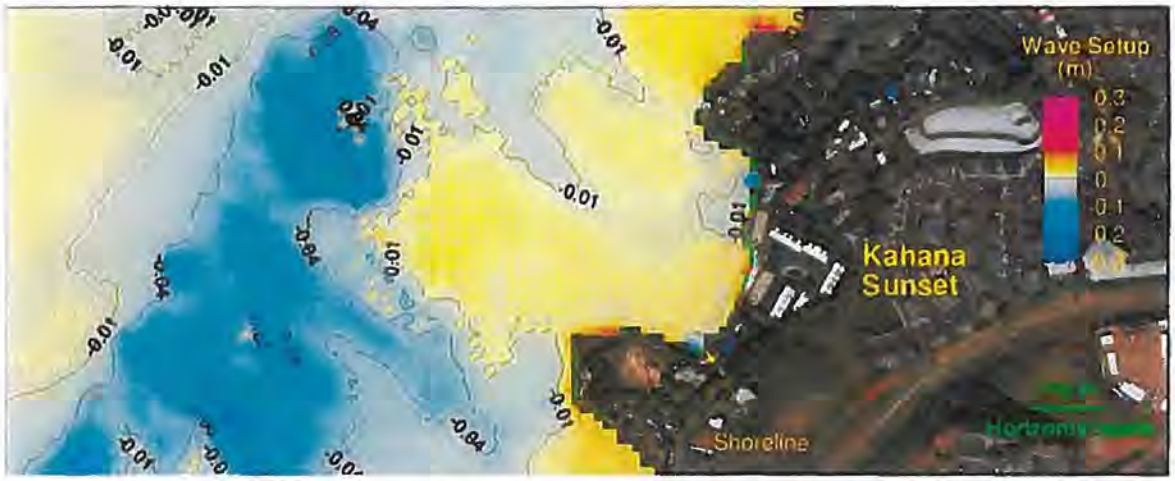

Figure 11- Wave Set Up for the Peak Swell Event

The results of the computer simulation runs further describe the flow patterns in the embayment and along the shoreline. Figures 12 and 13, show the maximum and mean flow patterns in the embayment. The flow is primarily onshore with a maximum speed of 3 m/s (9 ft/s) and a mean speed of 1.2 m/c (3.6 ft/s) at the shoreline. The northwest approaching waves and the wave height gradient along the shore, drive a net current to the south creating a clockwise mean flow in the embayment as shown in Figure 14. The net current reaches 0.66 m/s (1.98 ft/s) along the beach fronting Kahana Sunset condominium. This net long shore current is the culprit and the main mechanism for erosion of the beach during peak swell event.

Since the southern part of the embayment is steep, the sand eroded from the beach is likely deposited in numerous reef channels in the embayment. An aerial flyover and observation of the embayment clearly show these sand deposit banks.

The simulation results for the peak swell event further indicate that such events cause flooding of two computational cells on dry land that amounts to approximately 20 meters (60 feet) of inundation of the beach. In other words, peak swell event causes the floodwaters to inundate the beach fronting the Kahana Sunset Condominium reaching the existing seawall and other infrastructures on the property.

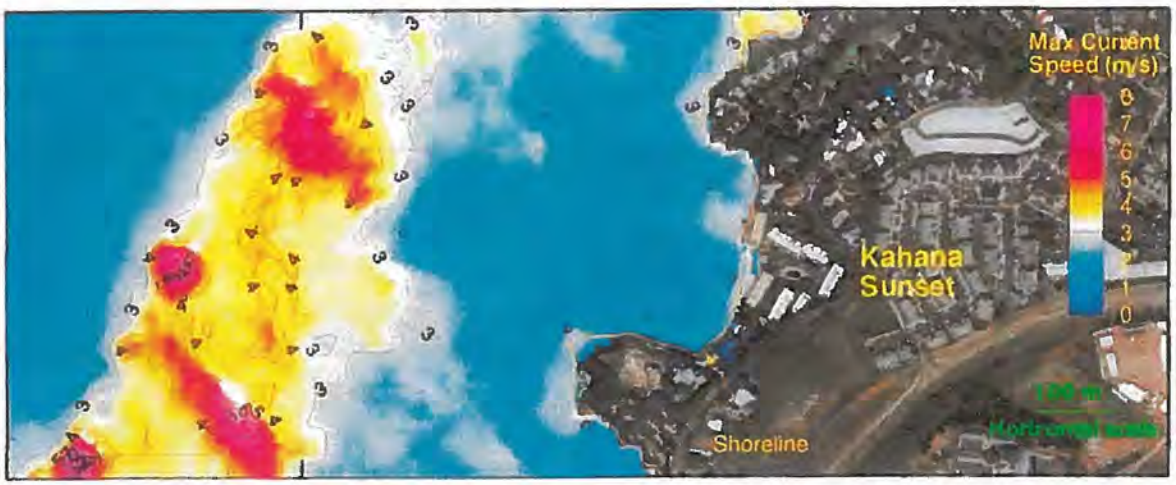

Figure 12- Maximum Flow Speed for the Peak Swell Event

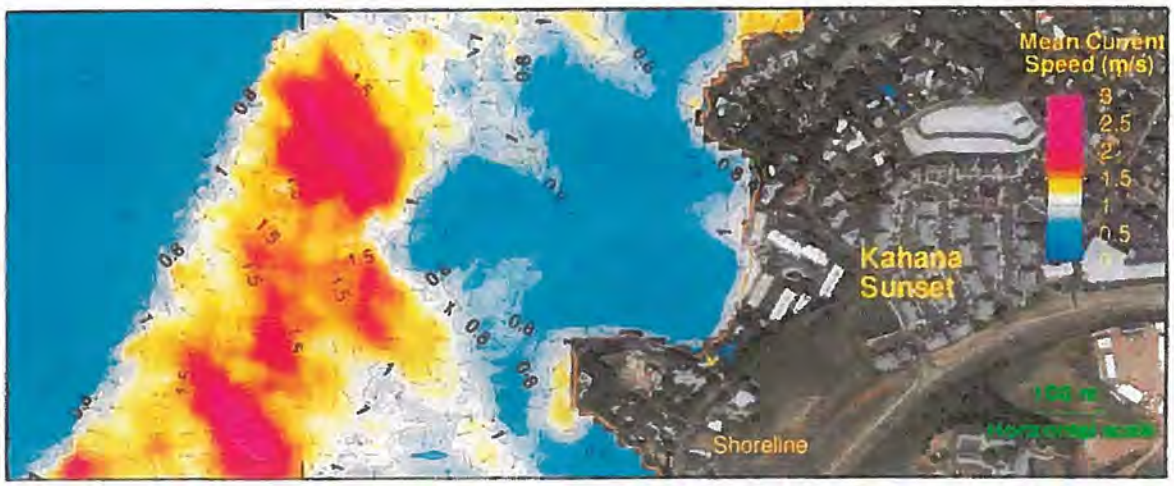

Figure 13- Mean Flow Velocity for the Peak Swell Event

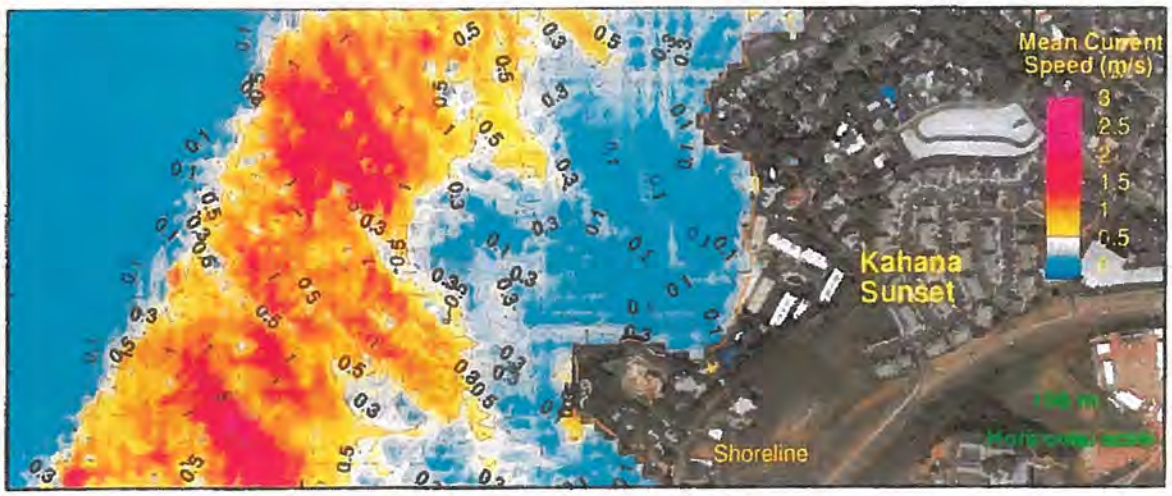

Figure 14- Net Current for the Peak Swell Event

The simulation for a moderate swell event is accomplished using a 7-meters (21 feet) grid size finite-difference model due to the shorter wavelengths of these swells. The mean higher high water (MHHW) level is still used in the computations. Similar to the peak event, a snapshot of the computed and transformed wave field is illustrated in Figure 15.

Figure 15- Wave Transformation at Northwest Maui for the Moderate Swell Event

In comparison to the peak event, he shorter and smaller waves of a mean event as they approach the coast from the north, break in shallower water over the reef. The shorter waves are also refracted to a greater extent in the embayment and approach the beach normally at Kahana Sunset as opposed to an oblique angle in the case of peak events.

The significant wave height distribution and maximum water surface elevations depicted in Figures 16 and 17, indicate focusing of wave energy mostly toward the center of the embayment as the moderate swell event approaches the land.

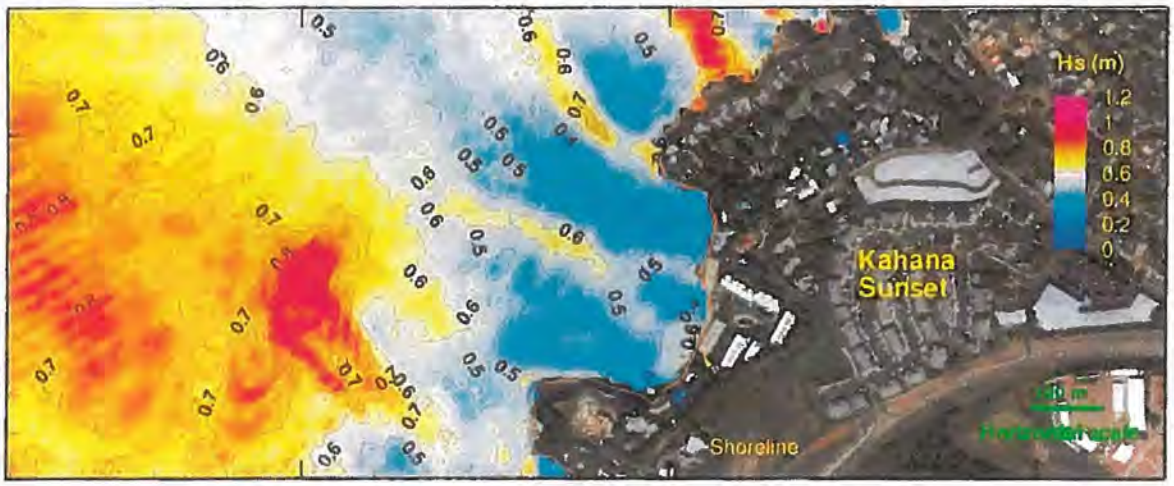

Figure 16- Significant Wave Height for the Moderate Swell Event

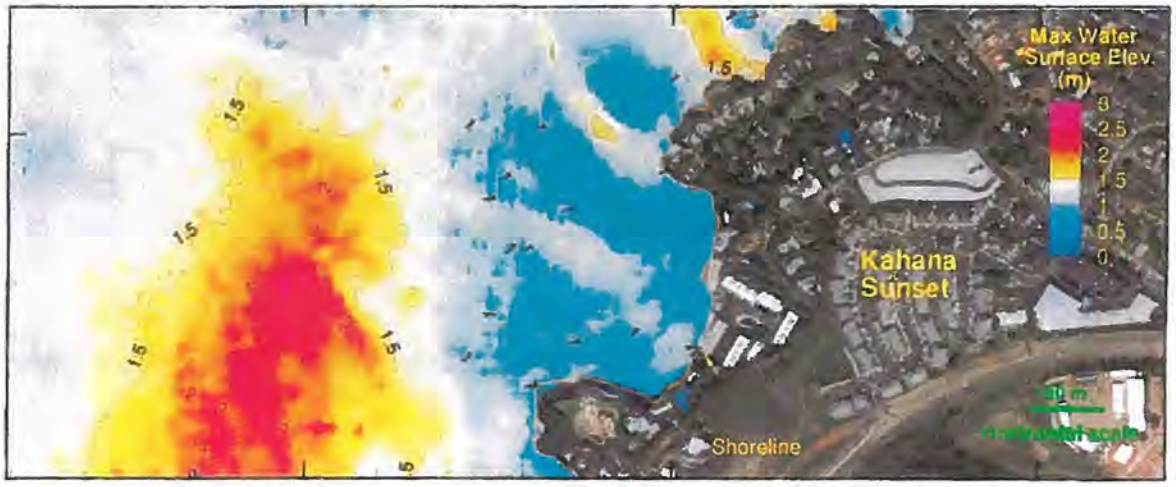

Figure 17- Maximum Water Surface Elevation for the Moderate Swell Event

An inspection of the bathymetry of the embayment presented in Figure 4, shows the high energy region follows the natural channels and tidal pools in the reef system. These small geological features are more effective in transforming the shorter waves of a moderate swell event.

The maximum water surface elevation including tides is 1 meter (3 feet) at the shore with flooding of 2 grid cells equivalent to approximately 14 meters (42 feet) of beach inundation. This level of flooding and inundation is enough to reach sections of the seawalls and other infrastructures at Kahana Sunset.

The wave setup or the rise of water level due to breaking of the wave nearshore, as depicted in Figure 18, is less than 0.04 meter (0.12 feet) along the shoreline.

Figure 18- Wave Set up for the Moderate Swell Event.

The maximum and the mean current speeds as shown in Figure 19 and Figure 20, are is 2.8 m/s (8.4 ft/s) and 0.9 meter/s(2.7 ft/s), respectively, along the southern half of the coastline in the embayment. In contrast, the net current speed created during a moderate swell event as presented in Figure 21, reaches a maximum of 0.52 m/s (1.56 ft/s) along the shore, but the nearshore flow pattern is not well defined and unlikely to introduce net transport of the sand in the offshore direction. It may only induce minor localized lateral and insignificant movement of sand along the beach.

Figure 19- Maximum Flow Speed for the Moderate Swell Event

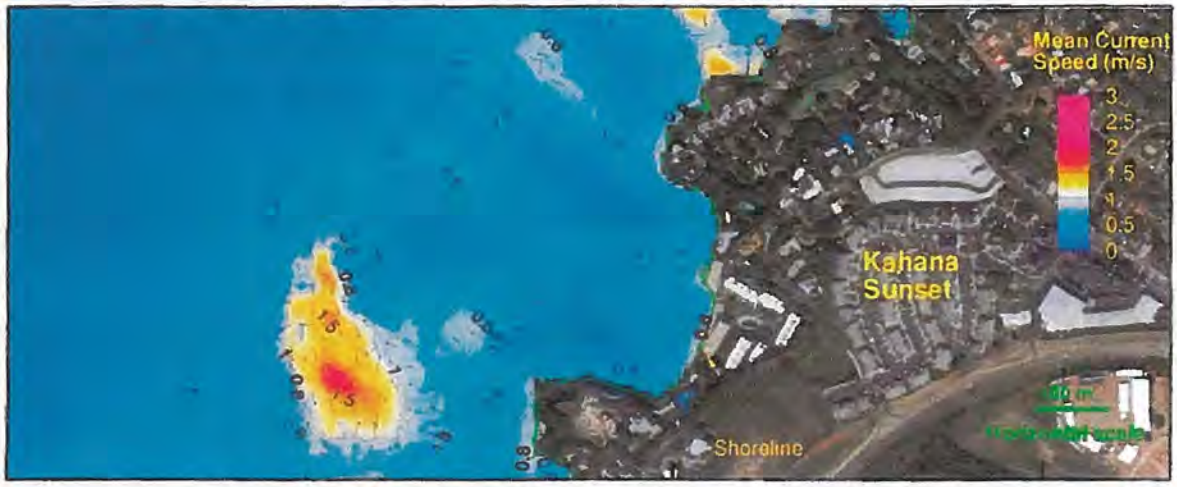

Figure 20- Mean Flow Velocity for the Moderate Swell Event

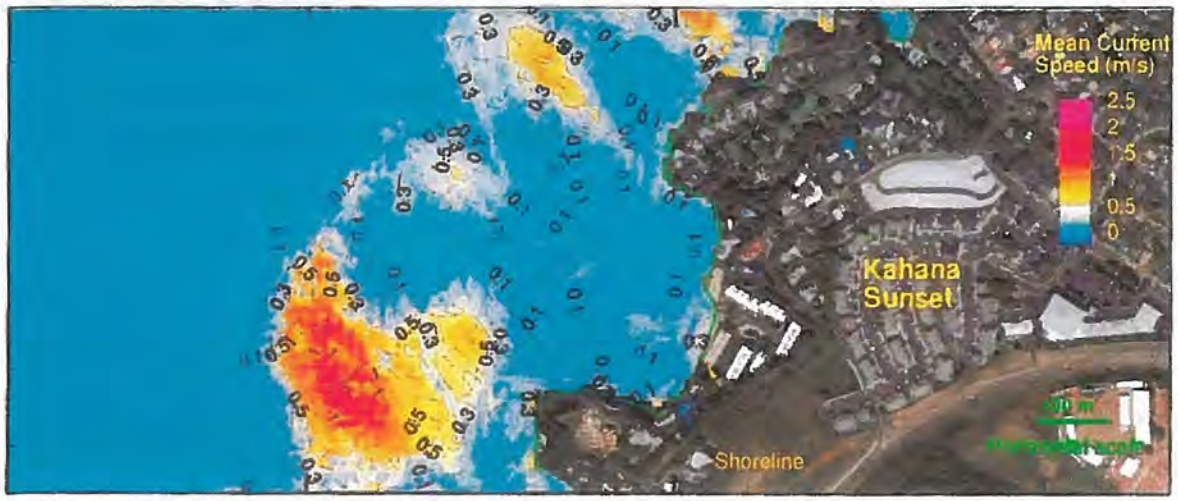

Figure 21- Net Current for the Moderate Swell Event

4.0 Conclusions

In order to address the chronic beach erosion at Kahana Sunset condominium located on northwest Maui, the AOAO initiated a wave climate study to evaluate wave transformation process for swells and wind generated waves, as they approach the area and impinge upon the coastline. 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 study utilizes 10-years of hindcast data presented in the Wave Energy Resources along the Hawaiian Island Chain by Stopa et al. (2011b) and a finite-difference Boussineq computer model to simulate swell and wind wave transformation as they enter the embayment and approach Kahana Sunset coastline. The region is primarily subject to the north swells and northeast wind waves and experience little effect from the south swells. 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. The study, therefore, simulates transformation of two different wave climates, namely, a peak swell event and a moderate swell event, respectively, for assessment of their impacts on Kahana Sunset beach. The peak swell event has a significant wave height of 12 feet and represents a major swell which may occur once in ten years or so. The moderate swell represents a 6-feet wave with smaller period which occurs frequently in early and late season and may produce hazardous conditions at the site.

Simulation results for a peak swell event, indicate that transformed wave heights in the embayment range between 1.5 to 3 feet despite having a much larger value over the reef. Although the wave setup is less than 0.18 feet, the surge 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.

The oblique wave incidence at the shore creates a clockwise mean flow in the embayment. The net longshore current along the beach fronting the Kahana Sunset reaches 1.98 ft/s. This net long shore current is the culprit and the main mechanism for erosion of the beach during peak swell event. Since the southern part of the embayment is steep, the sand eroded from the beach is transported and deposited in the reef channels in the embayment.

The simulation results for the waves from a moderate swell event with smaller wave height and shorter periods, confirm that these waves, in contrast to peak swell, follow the channels in the reef system and are refracted to a greater extent closer to the coast and approach the shore almost normally. The moderate event creates a maximum wave set up of 0.12 ft along the shore, and causes inundation up to of 42 feet inland. While such events might not present a beach erosion hazard, the surge reaching the seawall, however, may cause erosion and undermining of the footings of the structures over time. The moderate swell generates a maximum net current of 1.56 ft/s along the shore, but the flow pattern is not well defined and unlikely to cause a net transport of sand in the offshore direction.

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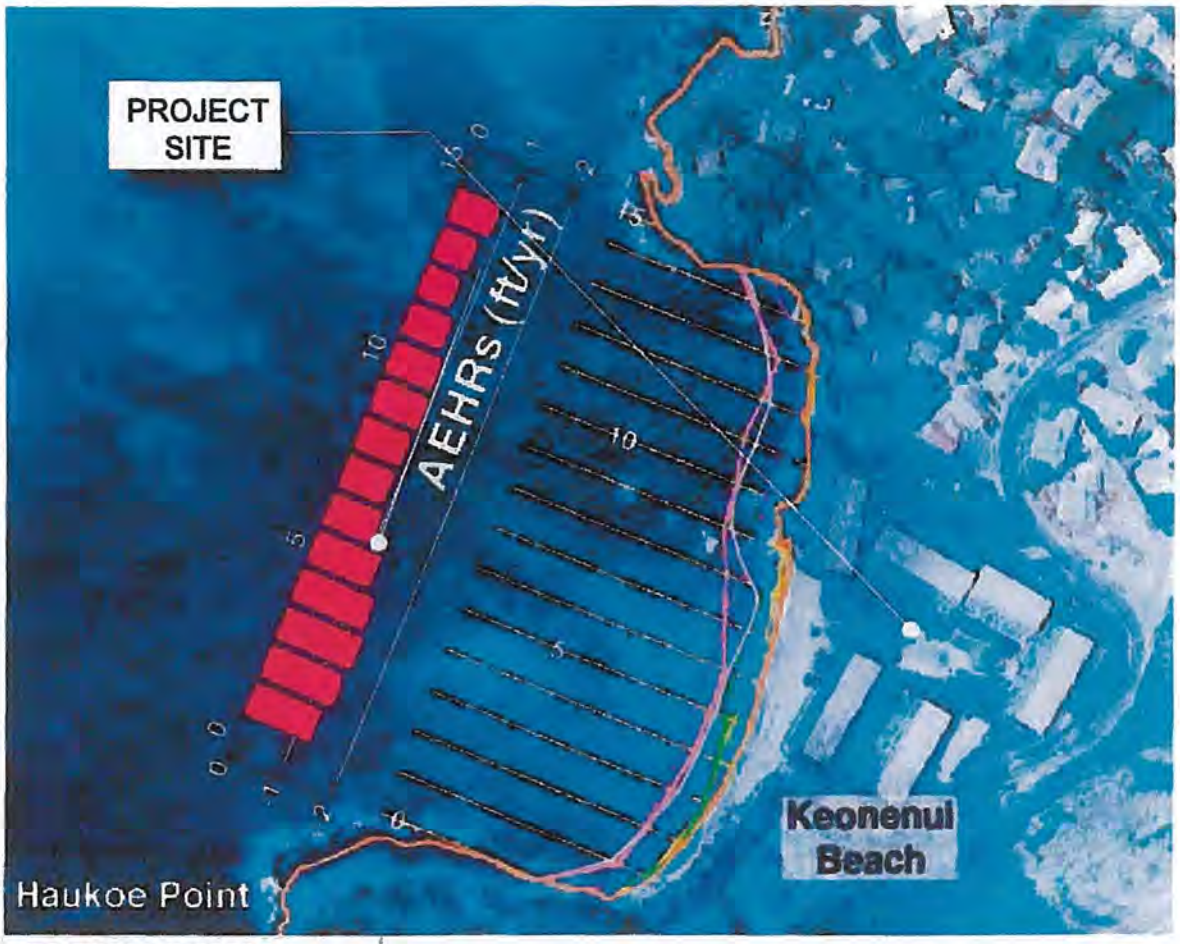


HISTORICAL SHORELINES

- 1912
- Nov 1949
- 1960
- Mar 1975
- Aug 1987
- Mar 1998
- Nov 1992
- May 1997
- Erosion rate measurement locations (shore normal transects)

Historical beach positions, color coded by year, are determined using ortho-rectified and georeferenced aerial photographs and National Ocean Survey (NOS) topographic survey charts. The low water mark is used as the historical shoreline, or shoreline change reference feature (SCRF).

For situations in which there is coastal armoring or rocky shoreline seaward of any vegetation, the vegetation line is drawn along the seaward side of the rock or armoring. If there is no sandy beach in these areas, both the vegetation line and the SCRF are delineated along the mean high water line.

Movement of the SCRF is used to calculate erosion rates along shore-normal transects spaced every 20 m (66 ft) along the shoreline. The 1987 SCRF is not used in the calculation of the AEHR, however it provides a gauge of seasonal uncertainty.

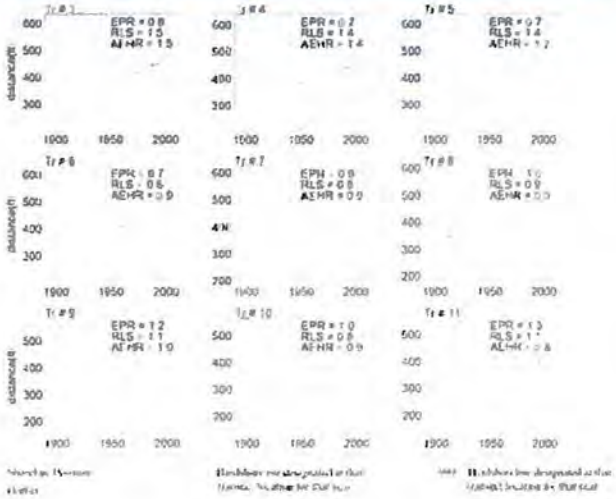


FIGURE 12

Not to Scale

JANUARY 2014

ANNUAL EROSION HAZARD RATE MAP

KAHANA SUNSET

CHRIS HART & PARTNERS, INC.

Alaeloa, Maui, Hawaii Smoothed Erosion Rates

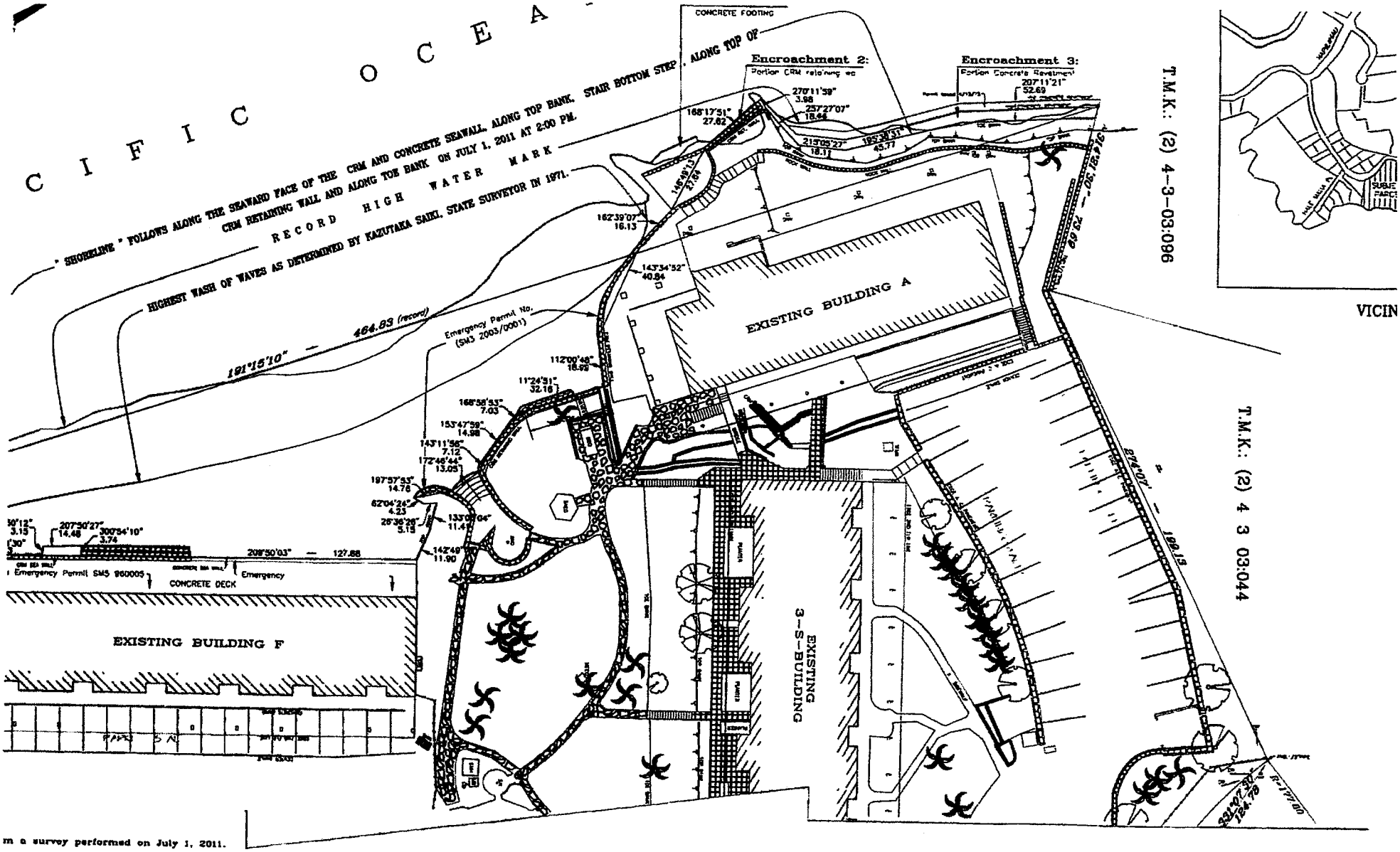
Coastal Geology Group, University of Hawaii

EXHIBIT 41

APPENDIX [redacted]

Shoreline Survey Map

EXHIBIT 42



m a survey performed on July 1, 2011.
ithe arc based from Triangulation Station
n was established from found boundary
this lot and adjoining lots.
is based from RM 16 of FEMA FIRM Panel No.
)-17-97.
shown hereon are for general reference only.

9. PP = POWER POLE
10. MH = MANHOLE
11. DRN = DRAIN
12. IB IRRIGATION BOX
13. UB = UTILITY BOX
14. GW = GUY WIRE
ROL VALVE
MANHOLE
= PLUMERIA
= SIDEWALK
= CRM WALL

Owner:
The Kahana Sunset
4909 Lower Honoapiilani Road
Lahaina, HI 96761
808-669-8011

Property Address:
4909 Lower Honoapiilani Road
Lahaina, HI 96761
808-669-8011

Prepared by:
VALENCIA LAND SURVEYING

This work was prepared by me or under my direct supervision.
VALENCIA LAND SURVEYING

ARTHUR P. VALENCIA
Licensed Professional Land Surveyor
State of Hawaii Certificate No. 10026
Exp. Date: 4-30-12

ARTHUR P. VALENCIA LICENSED PROFESSIONAL LAND SURVEYOR No. 10026 HAWAII, U.S.A.

Shoreline Verificatio

(For Construction Purposes)

"THE KAHANA SUNS

T.M.K.: (2) 4-3-03:01

BEING ALL OF R. P. 4697, L. C. AW. 4807:0
ALL OF R. P. 4697, L. C. AW. 4807:04 T

NEIL ABERCROMBIE
GOVERNOR

JAN S. GOUVEIA
ACTING COMPTROLLER

KERRY K. YONESHIGE
ACTING DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

Response refer to:
MA-296(11)
MA-491

December 5, 2011

Mr. Arthur P. Valencia
Valencia Land Surveying
P.O. Box 546
Lahaina, Maui, Hawai'i 96767

Dear Mr. Valencia:

Subject: Shoreline Certification Application
TMK 4-3-03: 15
Owner: Kahana Sunset AOAO
'Alaeloa, Lahaina, Maui, Hawai'i

This shoreline was inspected on the ground on November 15, 2011 and as a result, portions of the shoreline were determined to be further mauka than delineated on the map. Before we can proceed, DLNR's Hawai'i Administrative Rules require:

1. 13-222-10(b): Revise the shoreline (map and photos) as delineated with a red dashed line on the enclosed map.

2. 13-222-19: Resolve encroachments of CRM walls, concrete and CRM stairs, geotextile sand bags, drainage culvert, and concrete revetment upon State of Hawai'i owned property.

   In past practice, when dealing with shoreline encroachments, the Department of Land and Natural Resources has utilized solely the boundary of record to determine the presence of any encroachments. However, the Department of Land and Natural Resources has been advised by the Attorney General that, according to the Hawaii Supreme Court in County of Hawaii v. Sotomura, "land below the high water mark, like flowing water, is a natural resource owned by the state subject to, but in some sense in trust for, the enjoyment of certain public rights.'" In addition, the Attorney General opined that although the State may own land within the shoreline area that does not mean the State owns or is responsible for any structures placed it by others or the abutting landowner. Therefore, any structures located seaward of the proposed shoreline location as determined by staff would be considered encroachments upon State land. Furthermore, shoreline easements should include any structures in the shoreline area, even if the structures are located within the

record boundary of the property. Please contact the Maui District Branch of the Department of Land and Natural Resources Land Division at 984-8103 to resolve these encroachments.

After completion of the above, please submit a minimum of seven (7) copies of the revised map (including a minimum of two (2) photo index maps), three (3) copies of the revised photos, and confirmation of the resolution of the encroachment so that the certification process can be completed.

Should you have any questions on this application, please call me at 586-0390.

Very truly yours,

REID K. SIAROT
State Land Surveyor

Enclosure

cc: Ian Hirokawa
Andy Bohlander
Daniel Ornellas

F 1

ELINE " FOLLOWS ALONG THE SEAWARD FACE OF THE CRM AND CONCRETE SEAWALL, CRM RETAINING WALL AND ALONG TOE BANK ON JULY 1, 2011 AT

RECORD HIGH WATER MARK

HIGHEST WASH OF WAVES AS DETERMINED BY KAZUTAKA SAIKI, STATE SURVEYOR IN 1971

191°15'10" 464.83 (record)

Emergency Permit No. (SM3 2003/0001)

ISSUE CRM retaining wall

ISSUE Concrete steps and geotextile bags

E CRM and footing

Shoreline located at the mauka face of the concrete seawall

Shoreline located at the upper reaches of the wash of the waves along the erosion scarp

Shoreline located at the top of the concrete stairs

Shoreline located at the upper reaches of the wash of the waves along the erosion scarp

Shoreline located along makai face of CRM retaining wall

Shoreline located along the top o

215°05'27" 18.11

195°38'31" 45.77

146°49'13" 27.64

162°39'07" 16.13

143°34'52" 40.84

112°00'48" 18.99

11°24'51" 32.16

188°30'53" 7.03

153°47'59" 14.98

143°11'56" 7.12

172°46'44" 13.05

197°57'53" 14.76

62°04'24" 4.23

26°36'26" 5.15

133°03'04" 11.41

142°49'13" 11.90

300°54'10" 3.74

209°50'03" 127.88

t SM5 960005

CONCRETE SEA WALL

Emergency Permit SM3 2009/0005

CONCRETE DECK

EXISTING BUILDING A

EXISTING BUILDING F

PARKING STALLS

CRM RETAINING WALL

BRIDGE

PLANTER

11°24'51"
32.16

10.5'

15'

11'

ISAAC DAVIS HALL
ATTORNEY AT LAW
2087 WELLS STREET
WAILUKU, MAUI, HAWAII 96793
(808) 244-9017
FAX (808) 244-6775

January 20, 2012

Mr. Reid K. Siarot
State Land Surveyor
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, HI 96810-0119

Re: Shoreline Certification Application
TMK No. (II) 4-3-003:015
Owner: Kahana Sunset AOAO
'Alaeloa, Lahaina, Maui, Hawai'i

Dear Mr. Siarot:

This letter is written on behalf of the Kahana Sunset AOAO. The Kahana Sunset AOAO is the owner of TMK No. (II) 4-3-003:015 and the applicant for a shoreline certification for that property.

The Kahana Sunset AOAO retained Licensed Professional Land Surveyor Arthur P. Valencia of Valencia Land Surveying to prepare a survey of the shoreline of this property. He conducted an appropriate study and based upon the pertinent statutory and regulatory standards prepared a survey of the shoreline as of July 1, 2011 as shown on a survey map that he dated September 26, 2011.

You conducted an inspection on November 15, 2011 and, through a letter dated December 5, 2011, wrote that portions of the shoreline were determined to be further mauka than delineated on Mr. Valencia's map. You have provided a map indicating in detail, with a red dashed line, where you believe the shoreline should be located.

The Kahana Sunset AOAO wants to be as cooperative as possible with you in locating the shoreline. We have conferred with Mr. Valencia and with Mr. Chris Hart of Chris Hart & Partners and we all concur on the contents of this letter and in seeking the relief requested within this letter.

We are prepared to agree with most of the changes that you have proposed as delineated with the red dashed line on your map. There are, however, two important exceptions that I address below.

First, we believe that the shoreline is correctly located by Mr. Valencia in front of Existing Building F. Here, Mr. Valencia has located the shoreline "along the seaward face of the CRM and Concrete Seawall." The State suggests that the shoreline, in this area, is more properly located "at the mauka face of the concrete seawall."

We believe that Mr. Valencia's location is consistent with the State's regulations. The Department of Land and Natural Resources, State of Hawaii has promulgated administrative rules entitled "Shoreline Certifications" in HAR §§ 13-222-1 et.seq. HAR §13-222-16, entitled "Field survey," states, in subsection (b):

> The licensed land surveyor shall utilize the following criteria in locating and marking the shoreline:
>
> > (10) When the shoreline is located at a seawall, the seaward face of the seawall shall be marked and identified on the map.
> >
> > (11) When the shoreline is located at a revetment, the bottom ("toe") of the revetment shall be marked and identified on the map.

These particular regulations require that when any "seawall" or "revetment" is within the area that is to be delineated as the "shoreline" that the shoreline is to be located at "the seaward face" or "the bottom toe." Based upon HAR §§ 13-222-16(10) and (11), we request that the State reconsider its proposed location of the shoreline and agree with Mr. Valencia's location in this area.

Second, we believe that the shoreline is correctly located by Mr. Valencia to the north of Encroachment 2. Here, Mr. Valencia has located the shoreline "along toe bank." The State suggests that the shoreline, in this area, is more properly located "along the top bank."

We believe that Mr. Valencia's location is consistent with the State's regulations here as well. HAR §13-222-16(b) provides that the licensed land surveyor shall utilize the following criteria in locating and marking the shoreline:

> (6) On cliffs or ledges where a ground survey of the shoreline may be extremely difficult, the top of the cliff or ledge may be marked and depicted as the shoreline on the map.

In this instance, there is no factual basis for marking the shoreline at the top of the cliff or ledge. A ground survey of the shoreline was not "extremely difficult" in this case. Mr. Valencia was able to conduct a ground survey lower down, "along toe bank." Based upon HAR § 13-222-16(6), we request that the State reconsider its proposed location of the shoreline in this second area and agree with Mr. Valencia's location here as well.

We must point out that the "seawall" or "revetment" in front of the Existing F Building was constructed at the same time as the F Building and at the same time as the original Kahana Sunset development was constructed. The initial building permits for the Kahana Sunset were issued in 1967. Mr. Valencia's shoreline survey dated September 26, 2011 shows the "shoreline" as determined by Kazutaka Saiki, State Surveyor, in 1971. The 1971 "shoreline" is located far makai of the seawall or revetment fronting Building F. As such, there was no State jurisdiction invoked at the time Building F and the wall were constructed. The Coastal Zone Management Act had not yet been enacted. Permits were subsequently issued, as shown on Mr. Valencia's survey map, for repairs to the wall.

The wall in front of Building F was legally constructed at the time it was built and has been legally repaired since then. The "shoreline" may have "eroded" over time. One purpose of locating the shoreline at the base or toe of seawalls or revetments in instances such as these is to maintain the original jurisdictional distinction without creating what are more properly characterized as existing non-conforming uses.

As importantly, in both of these cases the location of the shoreline must be based upon the pertinent statutory and regulatory definition of the "shoreline." HRS § 205A -1 defines "shoreline" as follows:

> .... the upper reaches of the wash of the waves, other than storm and seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs, usually evidenced by the edge of vegetation growth, or the upper limit of debris left by the wash of the waves.

The "Shoreline Certifications" rules contain a definition of the "shoreline" in HAR § 13-222-2 that is identical to the statutory definition recited above. Subchapter 3 of these rules contains directions on how the "shoreline" is to be located.

The Hawaii Supreme Court has construed these statutory and regulatory provisions in *Diamond v. DLNR,* 112 Haw. 161, 145 P.3d 764 (2006).

What is critical in locating the "shoreline" is to determine "the upper reaches of the wash of the waves at high tide during the season of the year in

which the highest wash of the waves occurs." Importantly, the upper reaches of the wash of the waves during storm and seismic events must be excluded.

Put simply, once storm and seismic events are excluded, we do not believe that there is any evidence that "the upper reaches of the wash of the waves at high tide during the season of the year in which the highest wash of the waves occurs" is as far inland or mauka as the State apparently believes.

This is the season in which the highest wash of the waves occurs. As such this is the appropriate season to measure the upper reaches of the wash of the waves at high tide. Personnel at the Kahana Sunset have been instructed to witness and photograph the location of the high wash of the waves at high tide at both of the contested locations. We are informed that in neither case have waves been seen or photographed "at the mauka face of the concrete seawall" in the first instance or "along the top bank" in the second instance. Instead, the upper reaches of the wash of the waves at high tide, in both instances, have been witnessed and photographed in the locations shown on Mr. Valencia's map. We are willing to provide you with copies of these photographs.

The Kahana Sunset would like to avoid, if at all possible, a formal challenge to these two locations by the State. We hope that, based upon this letter and the photographs, the State will agree with Mr. Valencia's delineation in these two locations. If the State is not willing to accept Mr. Valencia's locations of the shoreline in the two areas above based upon this letter and the photographs, may we suggest, before the State rejects our delineation of the "shoreline" in these two areas or publishes notification of a certification, that a meeting take place on site with the primary participants being Mr. Valencia and Andy Bohlander and/or yourself, to determine if some agreement can be reached amicably on the location of the "shoreline" in these two areas.

Thank you for your consideration of these matters. Please feel free to contact me if you would like to discuss the foregoing further. I look forward to hearing from you.

Sincerely yours,

Isaac Hall

IH/gr
Cc: Kahana Sunset AOAO
Arthur P. Valencia
Chris Hart & Partners
Samuel J. Lemmo
Andy Bohlander

NEIL ABERCROMBIE
GOVERNOR

DEAN H. SEKI
ACTING COMPTROLLER

JAN S. GOUVEIA
DEPUTY COMPTROLLER

STATE OF HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAI'I 96810-0119

Response refer to:
MA-296(11)
MA-491

CC: Raymond
09/143

April 17, 2012

Mr. Isaac Hall
Attorney at Law
2087 Wells Street
Wailuku, Maui, Hawai'i 96793

Dear Mr. Hall:

Subject: Shoreline Certification Application
TMK 4-3-03: 15
Owner: Kahana Sunset AOAO
'Alaeloa, Lahaina, Maui, Hawai'i

This is in response to your letter dated January 20, 2012 regarding the recommended changes to the proposed shoreline. Your letter states that you believe the shoreline was correctly located by Mr. Valencia "along the seaward face of the CRM and Concrete Seawall" in front of Existing Building F and "along toe bank" to the north of Encroachment 2 and asks that the State agree with Mr. Valencia's delineation in these two locations.

The State determines shoreline based on evidence of "the upper reaches of the wash of the waves". In front of Building F, the State found a significant amount of beach sand in the seawall drains indicating that the waves wash through the drains, at least to the mauka side of the CRM and concrete seawall. The State also found that a portions of the CRM seawall were undermined due to wave action at the toe of the structure. To the north of Encroachment 2, the State identified evidence of the upper reaches of the wash of the wave along the middle-upper face of the pali and determined the shoreline to be at the top bank pursuant to Hawaii Administrative Rules §13-222-16(b)(6). The top bank is in vertical alignment with the upper reaches of the wash of the waves along the middle-upper face of the pali and therefore serves as a convenient means of surveying the recommended shoreline location.

The State already conducted a site inspection on November 15, 2011 with Kahana Sunset AOAO representative Karen Krenz and did not receive substantial evidence to dispute its shoreline determination. The State does not plan to conduct another site visit.

Should you have any questions on this application, please call me at 586-0390.

Very truly yours,

REID K. SIAROT
State Land Surveyor

cc: Kahana Sunset AOAO
Arthur P. Valencia
✓Chris Hart & Partners
Samuel J. Lemmo
Andy Bohlander

[redacted]

Cultural Impact Assessment

EXHIBIT 43

Kahana Sunset Condominium

Cultural Impact Assessment

For

Kahana Sunset Condominium
4909 Lower Honoapi'ilani Highway
'Alaeloa, Maui, Hawai'i 96761
TMK (2) 4-3-003:015

by

Jill Engledow
Historical Consultant
Wailuku, Maui

March 2012

Prepared for
Kahana Sunset AOAO

Kahana Sunset Condominium Cultural Impact Assessment Table of Contents

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FIGURES

Fig. 1. Kahana Sunset Location Map

Fig. 2. Kahana Sunset condominium. This photo was taken by Engledow in April 2009. The area now in need of repair is the stone seawall at the right of the photo, topped with a white fence.

Figure 3. The wall seen in the photo above is shown with the recent damage caused by sinkholes in this February 2012 photo by Engledow. Signs, fencing and plywood covering sinkholes keep people out of the area.

Fig. 4. Fishers on Haukoe Point, across the bay from the subject property. Engledow photo 4/09

Fig. 5. West Maui *ahupua'a* map, on display at Kapalua Resort's Kukui Room.

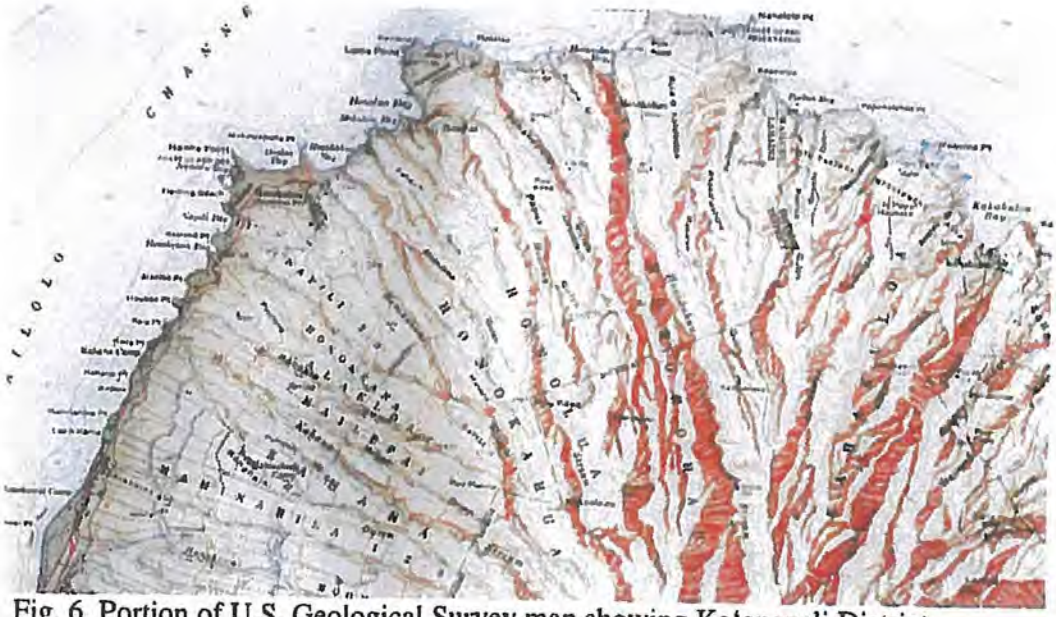

Fig. 6. Portion of U.S. Geological Survey map showing Ka'anapali District.

Fig. 7. West Maui *ahupua'a* and water courses. From *Sites of Maui* by Elspeth Sterling.

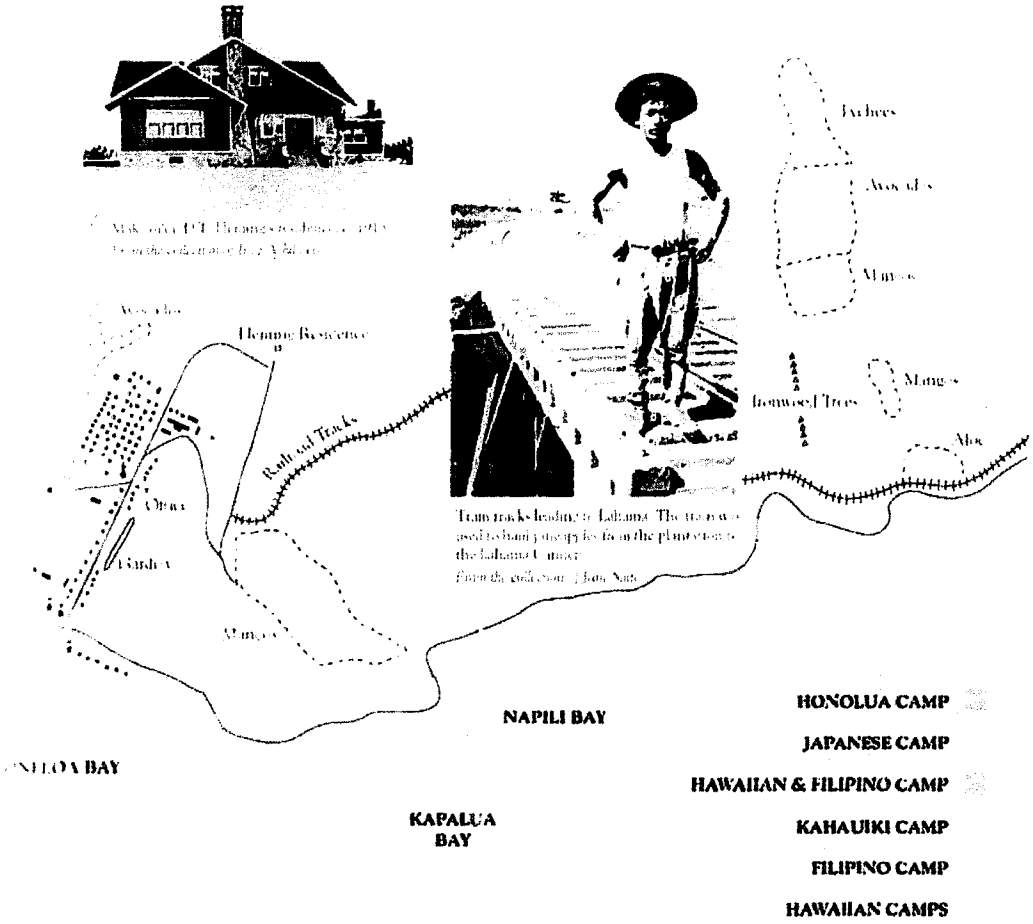

Figure 8. Subject parcel is on the bay makai of the "Aloe" field marked on the map found on page 5 of *Plantation Days: Remembering Honolua.*

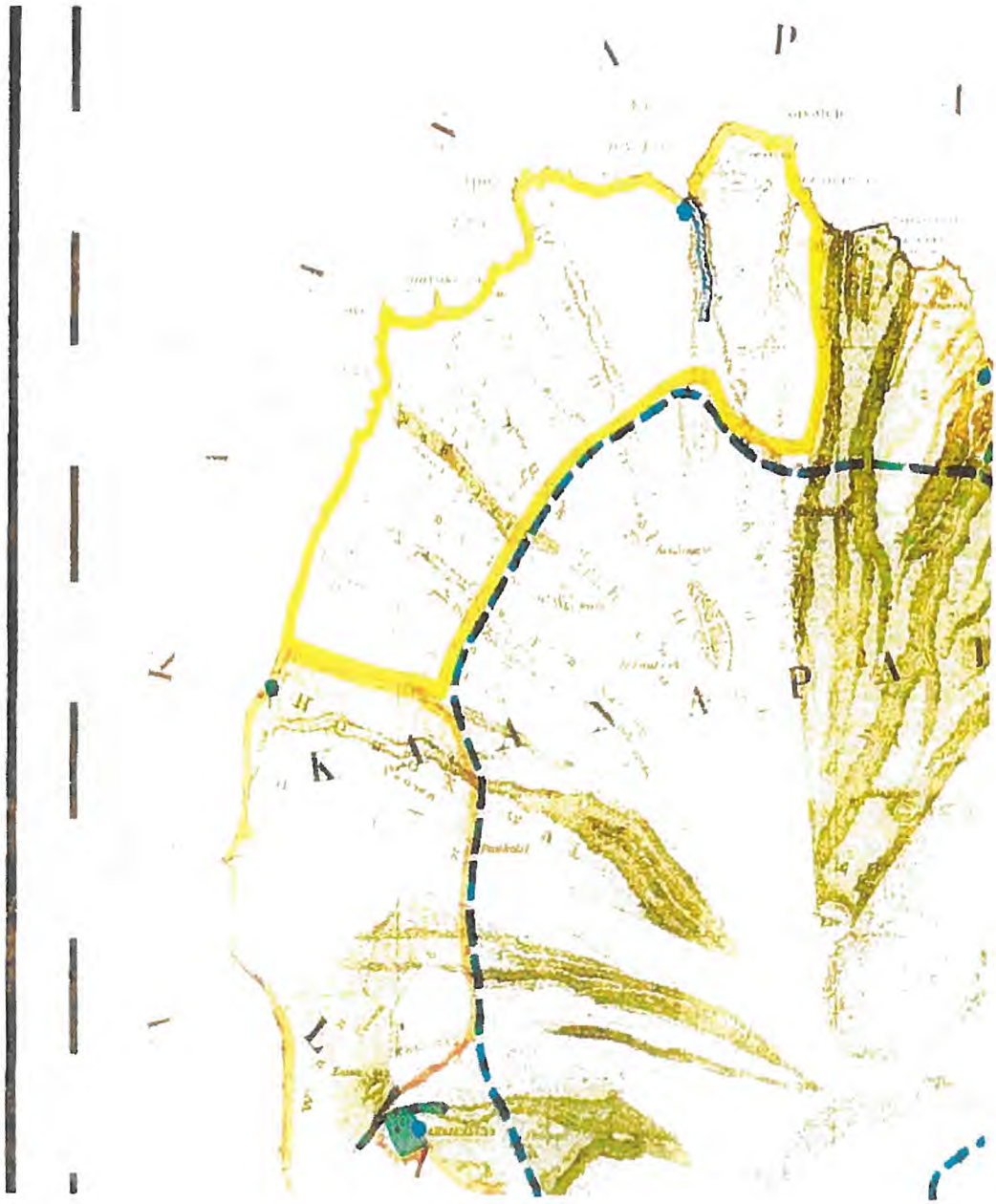

Fig. 9. Hawaiian Government Survey Map, 1885/1903. Yellow outline indicates grazing land.

Figure 10. Detail of Hawaiian Government Survey Map, 1885/1903, showing LCA 5524 in 'Alaeloa. LCA

Kahana Sunset

Cultural Impact Assessment

I. Introduction

At the request of Chris Hart & Partners, Inc., researcher and writer Jill Engledow prepared this Cultural Impact Assessment of the Kahana Sunset Condominium, located at TMK: (2) 4-3-003:015, Lahaina, Maui, Hawaii, in the *ahupua'a* of 'Alaeloa. The proposed action that requires this Cultural Impact Assessment is an application for a Chapter 343 Environmental Assessment, a Special Management Area Use Permit, and a Shoreline Setback Variance to allow major repairs to an existing seawall. The condominium is located on a 4.46 acre site at 4909 Lower Honoapi'ilani Highway, Lahaina, Maui, HI 96761. See project location in Figure 1.

II. Report Methodology/Resource Materials Reviewed

Sources sited in archival research are listed in the attached bibliography. Additional searches included the Internet and the indexes of a variety of books on Hawaiian culture and history which were searched for the words 'Alaeloa, Mailepai and Nāpili. A number of commonly used texts about Hawaiian history included no specific references to 'Alaeloa and very few to the surrounding area. Among the works consulted for these terms without success were:

- *The People of Old, The Works of The People of Old, Tales and Traditions of the People of Old* (all by Samuel M. Kamakau)
- *Nānā I Ke Kumu, Volumes 1* and *II* (Mary Kawena Pukui, E.W. Haertig, and Catherine A. Lee)
- *Hawaiian Antiquities* (David Malo)
- *Ke Alaloa O Maui* (Inez Ashdown)
- *Faith in Paradise* (Maggie Bunson)
- *Sugar Trains Pictorial* (Jesse C. Conde)
- *Sugar Water* (Carol Wilcox)
- *The Index to The Maui News* (Gail Bartholomew)
- *Hawaiian Almanac and Annual, 1875-1878* (Thomas G. Thrum)
- www.ulukau.org, which includes digital copies of old Hawaiian-language newspapers

- The Windley Files of the Lahaina Restoration Foundation
- The archives of Maui Historical Society

Engledow also conducted interviews with residents who remember uses in the area over the past 50 years.

III. Study Area Description

This site is on a small bay between 'Alaeloa and Haukoe Points. The coastline in this area is highly developed. Much of Lower Honoapi'ilani Highway is lined with walls and gates that limit public access to the shoreline. Except for ladders and steps leading down from various residential parcels, the bay's small beach is accessible to pedestrians only through the Kahana Sunset property, but a beach-access path on Hui Road E leads to Haukoe Point at the south end of the bay. This rocky point provides a platform for fishing, but is too steep to provide access to the sandy beach below. (Figure 3) The white sand beach fronting the Kahana Sunset has been called Keonenui, "the big sand," and later Yabui Beach (Young 1980:63) An 1885 Hawaiian Government Survey Map shows the place name "Kaalo" just south of the *ahupua'a* name "Alaeloa," but it is not clear what "Kaalo" refers to, and it is not listed in *Place Names of Hawai'i.*

While informants Alan Yabui and Glenn Kamaka recall an intermittent stream that ran during Kona storms, a 1913 USGS drainage map reprinted in *Sugar Water* (Figure 7) shows no permanent waterway in this *ahupua'a.* Honokōhau Ditch (also known as Honolua Ditch) was completed in 1904 and rebuilt in 1913, but apparently did not tap any sources in the 'Alaeloa mauka area. The ditch, constructed by Honolua Ranch, supplied water to Pioneer Mill. (Rice 1996:126-130)

IV. Study Area History

The subject property is located within the *ahupua'a* of 'Alaeloa in the district once known as Kā'anapali, but now known as Lahaina. In the Civil Code of 1859, "the twelve ancient districts of the island of Maui were reduced to four by combining Kaanapali with Lahaina. . ." (King, quoted in Sterling 1998:3). Prior to this time, the district of Lahaina extended to Keka'a, in the area that now is the Kā'anapali Resort. The district of Kā'anapali extended from Keka'a around the north coast of West Maui, past Kahakuloa, to near Hulu Island. (Figure 6)

Two Hawaiian proverbs apply to this area of the Kā'anapali district. *Kā'anapali wāwae 'ula'ula* (red-footed Kā'anapali) is "a term of derision for the people of Kā'anapali. The

soil there is red, and so the people are said to be recognizable by the red soles of their feet." A second seems to indicate that this was a productive area: *Ka ua leina hua o Kā'anapali* (the rain of Kā'anapali that leaps and produces fruit). (Pukui, *'Ōlelo No'eau* 1983:1280, 1581)

This area includes the famous Honoapi'ilani--the bays of Pi'ilani, including the major bays of Honokōwai, Honokeana, Honokahua, Honolua and Honokōhau. 'Alaeloa is just south of Honokeana. This name for the bays refers to the chief Pi'ilani, who controlled all of Maui Nui in the 15th century. While Pi'ilani is remembered for the peace and prosperity he brought to his kingdom, his sons, Lono-a-Pi'ilani and Kiha-a-Pi'ilani, fought each other, and succeeding generations fought battles in this West Maui neighborhood, some of which are described below.

Rich with fish, fed by streams that watered *lo'i kalo* in their valleys, the bays drew admiring attention in the song *Moloka'i Nui A Hina.* This song about Moloka'i, whose people view West Maui from across the channel, begins with the line *Ua nani nā hono a Pi'ilani:* How beautiful are the bays of Pi'ilani. These lovely bays are a symbol of Maui in other songs as well, such as *Maui Nani* by Johanna Koana Wilcox and *Lei Lokelani* by Charles E. King. Although the small coves of 'Alaeloa are not listed among the famous bays, they are certainly junior members of the family, tucked between Honokōwai and Honokeana.

The name 'Alaeloa translates as "distant mudhen," according to Pukui, but some contemporary informants related the word "*'alae*" to the area's red dirt. According to the *Hawaiian Dictionary, 'alaea* is "the water-soluble collodial ocherous earth used for coloring salt, for medicine, for dye and formerly in the purification ceremony called *hi'uwai.*" (Pukui and Elbert 1974:16) Silla Kaina, cultural resources coordinator for Kapalua Land Company, grew up in Honolua, and remembers her grandmother (from Hāna) collecting red dirt from 'Alaeloa cliffs which she boiled to make an iron-rich tea. Ms. Kaina says the dirt from this *ahupua'a* is redder than that in other *ahupua'a.*

W.M. Walker, in his notes on *Archaeology of Maui*, describes a *heiau* "on bluff at south side of rocky cove between 'Alaeloa and Papaua Points." He says this simple structure is a "small rectangular enclosure measuring 50 x 66 ft. . . . Use unknown. Several people thought it was a cattle pen." (Walker, Maui Historical Society.)

Handy, in *Hawaiian Planter*, says that:

> On the south side of western Maui the flat coastal plain all the way from Kihei and

> Maalaea to Honokahua, in old Hawaiian times, must have supported many fishing settlements and isolated fishermen's houses, where sweet potatoes were grown in a sandy soil or red *lepo* near the shore. For fishing, this coast is the most favorable on Maui, and although a considerable amount of taro was grown, I think it reasonable to suppose that the large fishing population which presumably inhabited this leeward coast ate more sweet potatoes than taro with their fish. (Handy, quoted in Sterling 1998:17)

A 1985 archaeological study agrees with this opinion, finding few signs of irrigated *lo'i kalo* in the area near the subject parcel. The study, titled "Testing of Cultural Remains Associated with the Kahana Desilting Basin," says:

> An examination of the L.C.A. documents for the various *ahupua'a* of the general area, and field inspection of the gulch area immediately *mauka* of the project area strongly suggest that irrigation systems were not in use at Kahana. . . indeed for the three *ahupua'a* north of here, only two L.C.A. parcels with *lo'i* were recorded, and both were very small, presumably springfed, systems several miles inland . . . thus the Kahana settlement pattern in A.D. 1848 consisted of houselots, and at least one small fishpond, extending several miles inland along the banks of Kahana Stream. No houselots were claimed beyond a few hundred feet inland. This pattern also appears to hold for at least the next three *ahupua'a* to the north of Kahana--Mailepai, 'Alaeloa and Honokeana. (Walker and Rosendahl 1985:A-3)

However sparsely populated, the area around the subject parcel played its part in the great battles of the 1700s. Here is Sterling's summary of battles at Lahaina and Kā'anapali, taken from Fornander's *Account of the Polynesian Race:*

> *[Alapainui, on his return from Oahu, hears of the uprising of Kauhiaimokuakama against his brother Kamehamehanui. Kamehamehanui is defeated in Lahaina and flees with Alapainui to Hawaii.]*
>
> In the following year, say 1738, Alapainui returned to Maui with a large fleet, well-equipped, accompanied by Kamehamehanui. With headquarters at Lahaina, his forces extended from Ukumehame to Honokowai. . .
>
> [Kauhi sends to Peleioholani, moi of Oahu, for help] . . . which that restless and warlike prince accepted, and landing his fleet at Kekaha, encamped his soldiers about Honolua and Honokahua.

> It is said that Alapai proceeded with great severity against the adherents of Kauhi in Lahaina, destroying their taro patches and breaking down the watercourses out of the Kauaula, Kanaha, and Mahoma *[Kahoma]* valleys.
>
> [Alapai reaches Lahaina before Peleioholani can get there from Oahu, and Kauhi retreats to the uplands and ravines behind Lahaina. Peleioholani lands and attacks Alapainui's forces in the hopes that he can form a junction with Kauhi's forces.]
>
> To this effect Peleioholani advanced to Honokowai where he found a detachment of Alapai's army, which he overthrew and drove back with great loss to Keawawa. Here they rallied upon the main body of the Hawaii troops. The next morning Alapai had moved up his whole force, and a grand battle was fought between the Oahu and Hawaii armies. The fortune of the battle swayed back-and-forth from Honokowai to near into Lahaina . . . (Fornander, quoted in Sterling 1998:19)

Kamakau also describes this battle in *Ruling Chiefs*. He says that Alapa'i, in addition to drying up the streams in the Lahaina area, also "kept close watch over the brooks of Olowalu, Ukumehame, Wailuku and Honokowai." The hardest fighting, he says, "even compared with that at Napili and at Honokahua in Ka'anapali," took place at Pu'unēnē. (Kamakau 1961:74) It seems likely that, rather than the better-known Pu'unēnē on the Central Maui isthmus, this refers to Pu'unēnē *mauka* of 'Alaeloa, which can be seen on a U.S. Geological Survey map (Figure 6).

More than a century later, when Western contact had greatly changed Hawaiian society, 'Alaeloa as well as other *'āina* across the islands began a transition that eventually led to the resort/residential neighborhood it is today.

The subject property is part of Land Commission Award 4807. The Māhele Database available through the website Waihona 'Āina records a claimant named Nika receiving five *apana* under this claim number. These included 30 *kalo lo'i*, perhaps in an *apana* higher up the hill than the beach-side subject parcel.

In support of the claim by Nika, Kaaukea swore that Nika had received three "*kula uala,*" or sweet potato fields, a houselot and *kalo* land from his ancestors in the time of Kamehameha I and from "Kekanai at the time of Hoapili in 1837, no objections." (The parcels were in 'Alaeloanui and 'Alaeloaiki. Maps available to this report writer do not show these specific areas.) (Appendix 1)

Notes from land records collected into two journals by Honolua Ranch in the early 1900s mention Nika and several parcels that ended up belonging to the ranch. According to historical writer Katherine Kama'ema'e Smith (who was in the process of entering the journals into the public domain under a grant from the Honua Kai West Maui Benefit Foundation), the Alexander Journal "has *apana* 3 and 4 of Nika's LCA located in

'Alaeloaiki. *Apana* 3 is a 1/4 acre houselot (*pahale*) surrounded by *konohiki* land, and written in pencil next to the survey drawing are two names: May Reciao and Annie P. Chung. *Apana* 4 is 1 and 3/10 acres in Mailepai that was sweet potato land (*kula 'uala*) again surrounded by *konohiki* land. The name in pencil is Ahsing." (Smith email communication 2/10/12 based on Alexander Journal)

In a second journal, kept by D. T. Fleming, Smith found notes indicating that Kahopukahi, son of Nika, deeded his portion of Nika land in Kahana to Lincoln M. Baldwin Oct. 8, 1889, who deeded these holdings to H. P. Baldwin Jan. 1, 1891. In Mailepai, lands identified as "purchased from Nika" also ended up in the hands of H.P. Baldwin. So, like most of the land along this coast, the Nika parcels became part of the Honolua Ranch. (Smith email communication 2/10/12 based on Fleming Journal)

LCA 4807 apparently was one of a few smaller parcels surrounded by the much larger lands controlled by Laura Kanaholo Konia (c. 1807-1857)--perhaps the "*konohiki* lands" mentioned in the Alexander Journal. Laura Konia held 22 *'āina* prior to the Māhele, almost all on Maui in the Kā'anapali district. She relinquished half to the king and was left with eleven, of which eight were on Maui. 'Alaeloa was among them. With neighboring lands of Mahinahina, Nāpili, Mailepai and a portion of Honokeana, it became part of Land Commission Award 5524 and later Royal Patent 1663. (Kame'eleihiwa 1992:228, 246)

When Laura Konia died in 1857, her daughter Bernice Pauahi inherited this land. Documents on file in the state Bureau of Conveyances show that, in June 1860, Bernice Pauahi and Charles Bishop deeded this land to a number of individuals. This was the *Hui 'Āina o Mailepai,* an early example of a system Native Hawaiians established in order to maintain their traditional lifestyle, with residents of an *ahupua'a* having access to the resources of a much larger area than the small homestead of a *kuleana* lot. (Stauffer 2004:2) The Mailepai Hui had 106 owners (Watson, *Honolulu Star-Bulletin* 12/14/1932)/

Though detailed, comprehensive population figures are not available for Hawai'i in the 1800s, some figures survived for Honokowai. While these may not have included 'Alaeloa, they do give a glimpse of the population and lifestyle of the area. The mission census of 1832 found 490 individuals living in Honokowai. (Schmitt 1973:38) An 1878 Kingdom of Hawai'i census of Honokowai also survives. A total of 242 individuals lived in 32 *hale* visited by the enumerator, all but a couple listed as "native." Most were engaged in agriculture, either on their own *kuleana* or as plantation workers. (Kingdom census, Kahului Library)

The Mailepai Hui lands and much of this West Maui coastline were acquired in the late 1800s and early 1900s by Henry P. Baldwin and his companies, Honolua Ranch and later

Baldwin Packers, the petitioner in the 1931 Mailepai Hui partition which ended the hui and parceled out pieces to various owners, primarily Baldwin Packers. Henry Perrine Baldwin acquired most of the company's land (when it was known as Honolua Ranch) by the end of the 19th century through a series of land grants and purchases. (Cameron et. al 1987:7) Originally used for grazing, the ranch gradually switched over to planting various crops in the early 20th century. (Figure 8) A map in the book *Plantation Days* shows plantings of aloe vera, mangoes, avocados and lychees *mauka* of the subject property, across the road that would become Lower Honoapi'ilani Highway and railroad tracks that transported pineapple to the company's Lahaina cannery in the early 1900s. (Figure 9)(Cameron et al. 1987:5)

Pineapple was planted by manager David T. Fleming, hired by Baldwin in 1911 to oversee Honolua Ranch. Fleming, who experimented with many crops in addition to pineapple, also owned assorted parcels of land along this coast, including some in the neighborhood of the subject parcel. His granddaughter, Ginger Gannon, said he had a beach house at 'Alaeloa. In 1932, Fleming planted 10 acres of aloe (apparently the field depicted in Figure 9), which he attempted to develop as a marketable product. Over the years, the ranch (renamed Baldwin Packers in 1924) gradually replaced its grazing land with pineapple plantings, which totaled 3,500 acres when *Plantation Days* was written in 1987. Baldwin Packers merged with Maui Pineapple Company in 1962, and the Honolua area which was its headquarters became the Kapalua Resort, while the land south of Honolua, including the Mailepai Hui land and the subject parcel and its neighbors, was developed as a residential and resort neighborhood.

V. Oral Interviews

Methodology, Procedures, and Interviewee Biographical/Organizational Information

A legal ad in *The Maui News* requested information from anyone with knowledge of cultural practices around this parcel; no replies were received. (Appendix 2) One individual with roots in the general area was contacted for information about current cultural uses and possible impact of the proposed action. A summary of his interview is below. In earlier cultural impact assessments of parcels on this bay, Engledow interviewed several individuals, two of whom actually lived in 'Alaeloa. Others lived in the general area and were able to talk about the lifestyle of this part of West Maui a generation ago. The information obtained from these informants most likely applies to the Kahana Sunset parcel and surrounding area. Because native informants of this area are few and far between, relevant excerpts of these interviews are being repeated in this report and are summarized below.

Glenn Kamaka, age 62, was interviewed by telephone March 2 and March 6, 2012. Mr. Kamaka was born in 1950 in Honokahua and grew up there. As a child, he said, "We used to ride bikes from Honokahua to Kahana," a route that took the riders past the subject parcel when it was owned by the Yabui family. "Back then, the water always had the right-of-way to go through property," he said, and at this location, water flowed through a culvert under the road and down the slope to the ocean. Perhaps this water flow, also mentioned by former resident Alan Yabui, was the 'Alaeloaiki Stream mentioned in Māhele documents but not shown on available maps. Mr. Kamaka remembers that the culvert that used to direct this water through the area that is now being undermined and is in need of repair.

In the initial conversation March 2, Mr. Kamaka speculated that the current problems are being caused by that runoff, but after a site inspection, he said March 6 that possibly the problem is coming from the resort's system to collect rainwater off of its building roofs. Mr. Kamaka works as assistant chief of the engineering department at the Napili Kai Beach Resort and said he has seen a similar situation at that resort. Usually, the rain there goes out through an open channel, but when there is heavy surf, the channel becomes blocked by sand. Possibly problems such as overflow in whatever system Kahana Sunset uses to deal with resort runoff are the source of its problem, he speculated. Perhaps the resort needs another storage area to hold runoff water.

Whatever the cause of the problem, Mr. Kamaka's primary concern about impact from repairs is any possible effect on the fish population in the bay fronting Kahana Sunset. "I come from a fishing family that has fished this area our whole lives," Mr. Kamaka said. The sandy beach in front of the resort was a staging area for *hukilau*, and many fish such as *akule* and *papio* could be found in the bay. It is a breeding site for *moi*, important both because it is a wonderful fish for eating and because of the status it holds in the Hawaiian culture, formerly being reserved only for *ali'i*. Mr. Kamaka said the fish along this coast have been depleted, and a lot of the coastline is fished out since the days of his youth. Whatever is done to solve the problem at Kahana Sunset must be done in such a way as to protect the well-being of the ocean and its fish population, he said.

Alan Yabui, interviewed April 13, 2009, by telephone, spent some of his childhood living at the site of the present Kahana Sunset. This interview was originally conducted for a Cultural Impact Assessment on a neighboring property. Mr. Yabui reviewed and offered some additions to an e-mailed summary of the phone conversation, and his additions are included in the summary below. Mr. Yabui is now a resident of Bothell, Washington, where he teaches classes in Hawaiian history, inter-cultural communication and history of the Japanese internment camps. He and his wife visit Maui often.

Mr. Yabui's grandfather, Yoshimatsu Yabui, was the Lahaina Cannery supervisor, and his son Yoshihara Yabui (Alan's father) also worked as a cannery supervisor. Yoshimatsu Yabui was a good friend of D. T. Fleming, who often visited the Yabui family home to relax with his friend under a *hau* tree. Because this home was on the site of the current Kahana Sunset, Keonenui Beach is often called Yabui Beach. Mr. Fleming also gave his friend a piece of land (less than an acre) in exchange for Mr. Yabui allowing Baldwin Packers to remove some sand from the dunes on his property in order to make a concrete floor for an expansion at the Lahaina Cannery in the space now occupied by the ABC Store and the *mauka* space with several stores, a restaurant, and Starbucks.

Mr. Yabui said his grandfather brought this property in 1939 from a Chinese merchant in Lahaina who had decided to go back to China. Mr. Yabui said he remembers that the name began with the letter "C." Mr. Yabui thinks there must have been a Hawaiian village there at one time--rocks that his grandfather dug up, now used in the walls around the Kahana Sunset, were weathered when his grandfather found them, so they might have come from that village. Some of the rocks were dark-blue basalt, adze-quality stone. His grandfather planted ti plants and mango trees that are still growing on the Kahana Sunset property. His grandfather also had poi pounders and *'ulu maika* stones, but Mr. Yabui is not sure whether his grandfather found these artifacts or whether David Fleming gave them to him.

The tsunami of April 1, 1946, turned upside down a neighbor's home near Yoshimatsu Yabui's family home on the Lahaina shoreline (now the parking lot near the entrance to Old Lahaina Lū'au), so Mr. Yabui's grandfather bought the house structure and moved it to 'Alaeloa and fixed it up over the next four years.

Alan's mother contracted TB in 1943, was sent to Kula Sanatorium (before penicillin, to recover) and he was raised by his grandparents and lived with them after the April 1, 1946, tidal wave in a house in "Cannery Camp," now the location of the Old Lahaina Lū'au. Later, after 1946, his grandparents moved to another house in "Cannery Camp," which is now the site of the main performance stage at Old Lahaina Lū'au. His grandfather retired in 1950 and at age 10 Alan moved to the site that is now Kahana Sunset. He lived there until he left for college at age 18.

One well-known neighbor was Maui hula teacher Emma Sharpe and her husband, David. [Mrs. Sharpe's mother, Annie Farden, is mentioned in the Mailepai Hui partition document.] David Sharpe used a World War II-era landing boat to spread fishing nets with Hawaiian residents in the Kahana area. Mr. Yabui and his father helped in a *hukilau*-type fishing event near Kahana Sunset.

Mr. Yabui said there was a stream that ran intermittently; a dip in the road crosses the stream bed, that flowed during heavy rains. He used to go up into the valley above his home, walking on the pineapple field roads, where some native plants still grew. In those days, however, "Hawaiian culture was submerged," he said, and there was little discussion or practice of native cultural matters.

Philomen Sadang, age 66, was interviewed by telephone June 12, 2009. This interview also was originally conducted for a Cultural Impact Assessment on a neighboring property. Mr. Sadang and his family have been fishing in the cove fronting the subject property for as long as he can remember. Mr. Sadang lives down the coast in what he calls "the last fishing village" on the west side, between two condos, the Kahana Reef and the Kahana Outrigger. "I've seen this land go from chicken coops and pig pens to concrete and steel," he said. Mr. Sadang said damage to seawalls on this cove is a result of rising ocean levels that are "eating up the land" on the west side. He said in front of the subject property is "a very active fish house" where he often fishes, and his only concern about the proposed project at the time of his interview (a seawall repair next door to the Kahana Sunset) was the potential for runoff that might damage this fish population. He said he wondered what kinds of chemicals the builders would use and said that care should be taken that there is no runoff into the ocean during construction.

Joan McKelvey (originally interviewed in May 2009 for a report on the property at 11 Hale Malia Place, next door to Kahana Sunset)

Mrs. Joan McKelvey lived on a parcel next to the subject property from 1976 to 2000 in one of the first houses built around the bay in contemporary times. When they got the property, Mrs. McKelvey said, it was "sort of a wooded area," though they knew there had been some sort of post-contact dwelling there because there were steps going down to the beach. Next door lived George I. Brown, and on the north point was a beach house owned by Leighton Taylor. Mrs. McKelvey says the area was an old fishing village, and the McKelveys found artifacts such as broken poi pounders and bone fishhooks.

Erosion along the bay has been an ongoing problem. Concrete and stone steps stood intact but separated from the cliff below the home of George Brown, perhaps washed away from the cliff by a tsunami. The McKelveys had steps down to the beach that were wiped out by Hurricane Iwa.

The owners of these cliff-side properties belonged to the Hale Malia Association. They gated their community because "we were getting some unsavory characters down there,"

Mrs. McKelvey said, but anyone who called and asked for access to the bay for fishing was welcome. One neighbor in particular, the Fines, had a lot of local and Tongan friends who came down to fish.

The Lahaina Yacht Club used to have a picnic day once a month on the beach, sometimes accessing the beach through the McKelveys' property. Mrs. McKelvey does not remember what kind of fish people caught in the bay, but says that sometimes local ladies would come to take seaweed, and there were turtles in the bay.

For years, there was no lock on the McKelveys' door and no fence between them and the Kahana Sunset, which was built after their home was. Then the McKelveys began to find wallets in the bushes. They realized that thieves were going after tourists by using their property, and decided there should be a fence between them and the condominium.

Gwen Lutey and Frances Kalua, two women who formerly lived in the Nāpili area shared memories of the lifestyle they enjoyed during their youth. Gwen Lutey and the late Frances Kalua were interviewed in an informal meeting at the Hale Mahaolu Eono senior housing in Lahaina March 31, 2009. The interview was conducted during research for a Cultural Impact Assessment for a property on the other side of this cove. Also present was historical author Katherine Smith.

Frances Kalua lived in Nāpili. Her family had lived in the area for generations. Her grandfather, August Reimann, had a little ranch, with a windmill to draw water from a well for the animals. [August Reimann and other family members are listed in the Mailepai partition document and in census documents of the area from 1900.] Ms. Kalua does not recalls hearing that there used to be a fishing village in the area, and no one talked much about it. In her childhood, her aunt was the *kilo i'a,* watching from above Honolua Bay to find schools of fish. This aunt was adept at making throw nets. People would lay net and share the fish they caught. There was also plenty of the *limu* known as *lipe'e*. The shellfish known as *pipipi* were big and plentiful. They were boiled and then picked out of their shells with a pin, a process Ms. Kalua said was tedious but worth it because the *pipipi* were tasty. Another shellfish, the *kupe'e*, lived in the sand and could be found only on starry nights, and people went down to the beach to catch sand crabs as well. Her aunt delivered mail in the area, and picked up goods from Lahaina for anyone in the neighborhood who asked, dropping them off when she delivered the mail.

Gwen Amaral Lutey grew up on Nāpili Bay. Like Ms. Kalua, she remembered a rural, traditional cooperative lifestyle, in which families lived off the land. They raised chickens, pigs and ducks and shared with others. Her grandmother made 300 loaves of

bread at a time and the family worked together with her to make and sell the bread. David Fleming loved fishing, and set up a commercial operation to catch the large schools of *akule* in Honolua Bay, where the best fishing was. Some of the fish were divided among families, who would take them home to eat or dry.

Native plants were used to some extent. *Noni* was easily available, and Ms. Kalua and her brothers used to ride horses to collect *ko'oko'olau* and pick mountain apples. Both Ms. Kalua and Mrs. Lutey recalled seeing *akualele* [defined in Pukui's *Hawaiian Dictionary* as meteors] during the day and night.

Both women praised David Fleming, saying that he sold parcels in the lower portion of Mailepai Hui to local families for $500. "He never forgot the people," Mrs. Lutey said.

VI. Confidential information withheld; Conflicts in information or data

No confidential information was withheld. There were no conflicts in information or data within the reports consulted for this Cultural Impact Assessment.

VII. Conclusion

After making site inspections, interviewing knowledgeable people of the area and conducting documentary research on the subject property and the area around it, it appears that the primary concern in regard to the proposed action would be any affect it might have on the health of the bay fronting the resort. Longtime residents and fishermen say the bay is an important breeding area for *moi* and point out that fishing along this shoreline is already depleted. Proper care should be taken in the repair process to ensure that neither construction materials nor runoff impact the health of this important cultural asset.

Otherwise, 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.

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Appendices

Mahele Record: 04807

[illegible]	04807
[illegible]	Nika
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[illegible]	
[illegible]	Maui
[illegible]	Kaanapali
[illegible]	Alaelonui, Alaeldiki, Honokohau
[illegible]	

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No. 4807. Nika, Kaanapali. 19 [illegible] 1848
N.R. 203v6

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F.T. 28[illegible]-290v7

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Appendix 1: Māhele record from waihona.com

N.T. 15[illegible]3

Māhele data page 2

AFFIDAVIT OF PUBLICATION

STATE OF HAWAII, }
County of Maui. } ss.

Rhonda M. Kurohara being duly sworn deposes and says,that she is in Advertising Sales of the Maui Publishing Co., Ltd., publishers of THE MAUI NEWS, a newspaper published in Wailuku, County of Maui, State of Hawaii; that the ordered publication as to

Information Wanted for Cultural Impact Assessment

of which the annexed is a true and correct printed notice, was published 2 times in THE MAUI NEWS, aforesaid, commencing on the 22nd day of February, 2012, and ending on the 24th day of February, 2012, (both days inclusive), to-wit: on

February 22, 24, 2012

and that affiant is not a party to or in any way interested in the above entitled matter.

This 1 page Information Wanted, dated February 22, 24, 2012, was subscribed and sworn to before me this 11 day of February, 2012, in the Second Circuit of the State of Hawaii, by Rhonda M. Kurohara

Notary Public, Second Judicial Circuit, State of Hawaii

BETTY E. UEHARA
My Commission expires 09-26-15

BETTY E. UEHARA NOTARY PUBLIC No. 83-344 STATE OF HAWAII

Information Wanted for Cultural Impact Assessment

Maui Island Press requests information on culture resources or activities on or near this parcel in Napili, Maui: TMK (2) 4-3-003:015.

Please contact MIP within 30 days at (808) 242-5459.

(MN Feb 22, 24, 2012)

The Maui News Affidavit of Publication

APPENDIX I

Preliminary Engineering Report

EXHIBIT 44

PRELIMINARY ENGINEERING REPORT FOR KAHANA SUNSET CONDOMINIUM KAHANA, MAUI

Prepared For:

Apartment Owners Association of Kahana Sunset Condominium Complex Kahana, Maui

Prepared By:

Marc M. Siah & Associates, Inc.

April 2012

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APPENDICES:

Appendix A – Potable Water Demand, Wastewater Generation Rates, and Electrical Loads calculations

Appendix B – System Head Curve and Pump Performance Curve

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SECTION 1.0

INTRODUCTION

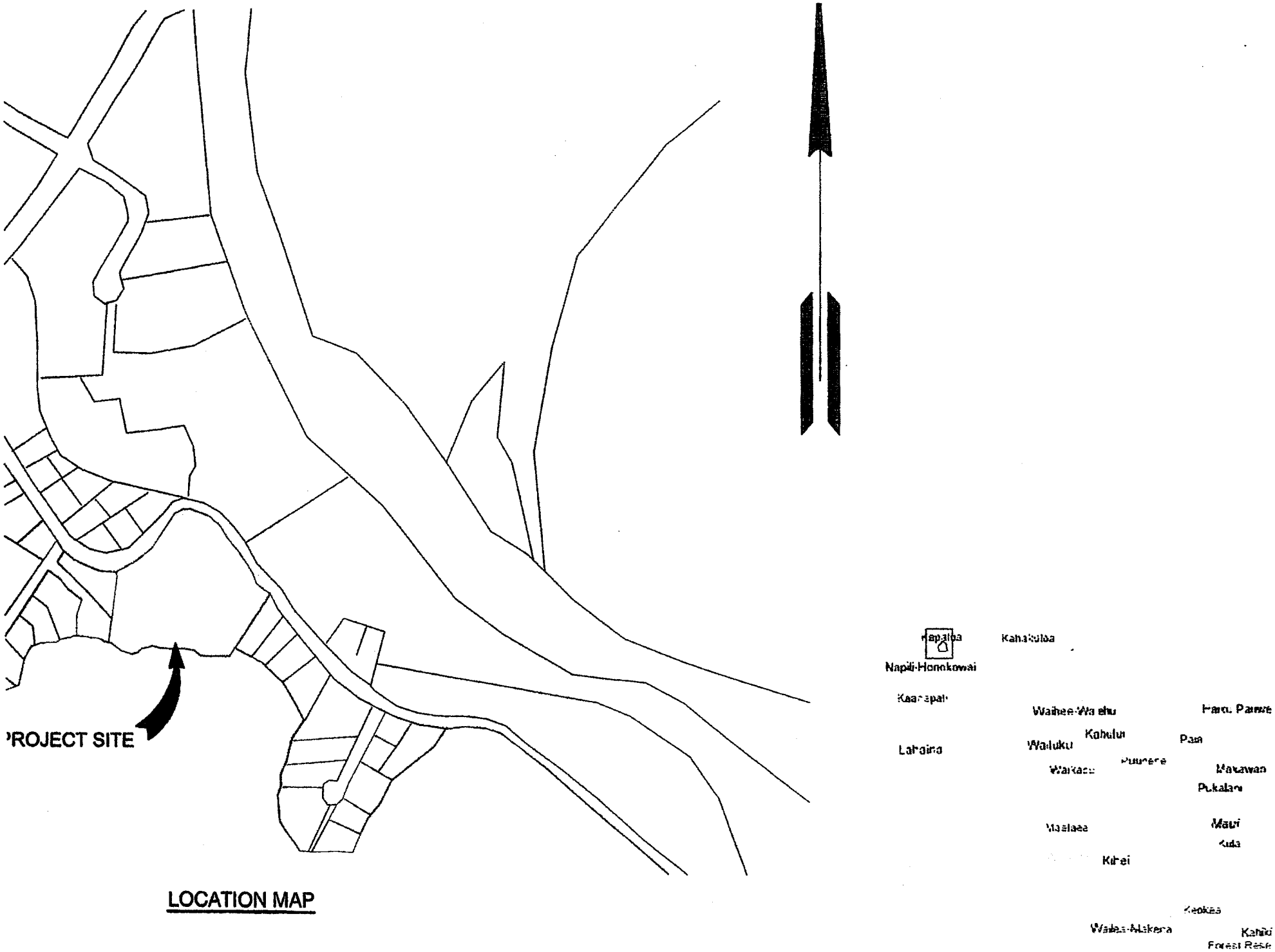
SECTION 1.0

INTRODUCTION

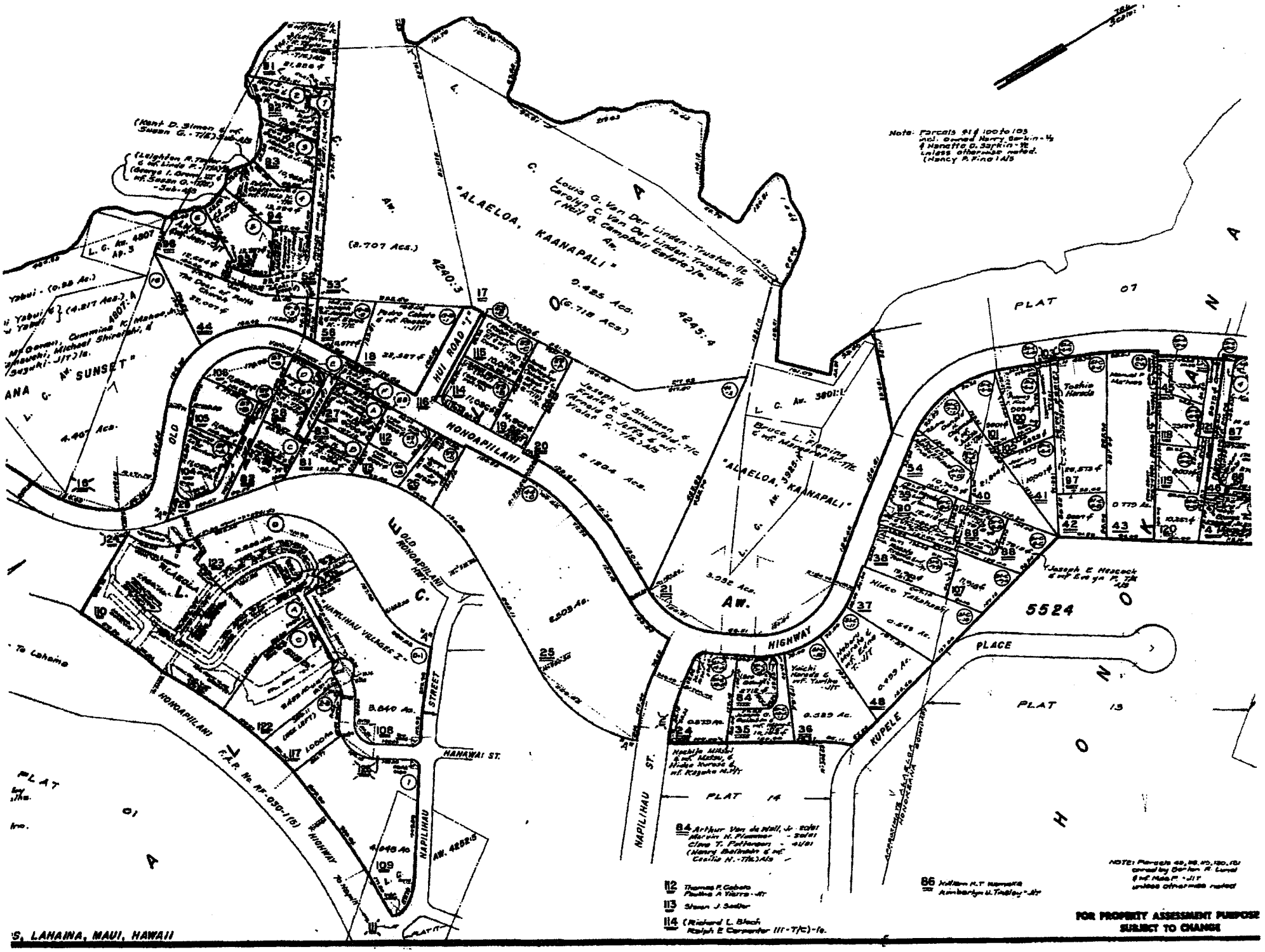
1.1 Project Background and Description

The Kahana Sunset Condominium Complex is a multi-unit residential development in west Maui. The project site is located on a land parcel along the shorelines of Keonenui Bay which stretches between Alaeloa Point and Haukoe Point along west Maui coast. A vicinity map indicating the general location of the condominium property is shown in Figure 1-1. The complex is exposed to north swells and trade wind waves which undergo significant transformation as they approach the land and enter the bay. This exposure causes chronic beach erosion and accretion with occasional and at times sever structural damage to foundations and footings of existing protective coastal fortifications requiring reconstruction and repair under emergency conditions. At two recent occasions, specific emergency repairs were necessitated for seawalls fronting Buildings F and Building A, which were performed under emergency permits SM3 2009/0005 and SM3 2003/0001, respectively.

At the present time and in order to address the failure of the retaining wall fronting the BBQ pavilion/shower and to construct additional modifications to the protective seawalls in accordance with the development plan for shore protection, the Kahana Sunset AOAO is in the process of preparing a Master Plan and applying for a Shoreline Setback Variance (SSV) and Special Management Area (SMA) Use Permit. The SSV is necessary to allow additional construction work on the failing seawall and other planned modifications and additions to protective seawalls and coastal structures within the Shoreline Setback Area. In compliance with the State environmental review process, the Kahana Sunset AOAO is also preparing an Environmental Assessment for these modifications and renovations. In line with, and concurrent with these efforts, Marc M. Siah and Associates, Inc. is commissioned by the Kahana Sunset Condominium AOAO, to prepare a preliminary engineering report and drainage report for the Kahana Sunset Condominium Complex.



LOCATION MAP


"ALAELOA, KAANAPALI"
HONOAPIILANI
HUI ROAD "F"
OLD HONOAPIILANI HWY.
HANAWAI ST.
NAPILIHAU ST.
KUPELE
HIGHWAY
PLACE
PLAT 07
PLAT 13
PLAT 14
5524
"SUNSET"
Louis G. Van Der Linden - Trustee - T/C
Carolyn C. Van Der Linden - Trustee - T/C
(Neil) G. Campbell Estate - T/C
Joseph J. Shulman & Frank R. Sammartino - T/C
Bruce L. Fleming & wf. Marjorie R. - T/C
Joseph E. Hescock & wf. Evelyn P. T/C
Note: Parcels 81 & 100 to 105 incl. owned Harry Gerkin - ½ & Nanette D. Gerkin - ½ unless otherwise noted. (Nancy P. Fine) A/S
FOR PROPERTY ASSESSMENT PURPOSE SUBJECT TO CHANGE
S, LAHAINA, MAUI, HAWAII

The multi-unit condominium complex sits on a 4.467 acre land parcel and consists of five residential buildings encompassing 79 units of one and two-bedroom apartments, plus a separate 4-bedroom apartment for the complex's resident manager, and a detached building housing three offices and a laundry room. The condominium complex was constructed in early 1960s which has undergone renovations and additions in later years. Aerial extent of the development is depicted in Figure 1-2.

1.2 Scope of Report

This Preliminary Engineering Report describes the existing infrastructure at Kahana Sunset Condominium Complex, ranging from water to wastewater, drainage, roadways and parking, electrical and telephone system. The report attempts to identify inadequacies in the infrastructure and to provide recommendations for improvements and upgrading to the existing system.

Figure 1-2 Aerial Vicinity Map

SECTION 2.0

PROJECT CHARACTERISTICS

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SECTION 2.0

PROJECT CHARACTERISTICS

2.1 Description of the Project and Location

Kahana Sunset Condominium Complex is located on a 4.467-acre land parcel at 4909 Lower Honoapiilani Road along the western coast of the island of Maui. The land parcel is identified by Tax Map Key (TMK): 2-4-3-03:015 comprised of all of R. P. 4697, L.C. AW. 4807:03 to NIKA 2, all of R. P. 4697, L. C. AW. 4807:04 to NIKA 2, and Portion of R. P. AW. 5524 to L. KONIA. The Tax Map for the condominium complex is depicted in Figure 2-1.

The land parcel is zoned "R-3 Residential District" by Maui County. It consists of a mix of five separate two and three-story composite structures encompassing 79 units of two and one-bedroom apartments, plus a manager's residence and offices and a detached laundry building. The complex was originally constructed in 1960s and has undergone several phases of alterations and/or renovations since then. There are a total of 16 one-bedroom units and 63 two-bedroom units in five detached structures referred to as Building "A" to "F" in addition to a 4-bedroom unit used as the property manager's residence and office in Building "G" plus three offices and a laundry room in a separate detached building next to Building "G". The units are mostly individually owned and used as residences or for vacation rental.

All structures excluding the Resident Manager's and the offices have three floors. Buildings A and E have eleven two-bedroom units. The units have 1106 SF of living area and 308 SF of lanai. Buildings B and E have five one-bed room units and eleven two-bed-room units. One bedroom units are all identical and have 700 SF of living area and 84 SF of Lanai. The two-bedroom units have 1,050 SF of living area and 392 SF of lanai. Building D and E each has eleven one-bedroom units with 700 SF of living area and 84 SF of lanai. Building G is a four-bedroom unit used as the complex's Manager's residence. An additional detached building houses three offices and a laundry room and is located adjacent to building G.

The grounds are well kept and landscaped with lawn, ornamental flowers and palm trees which include a pool, a shower and barbeque pavilion. A site plan showing various facilities of the development is depicted in Figure 2-2.

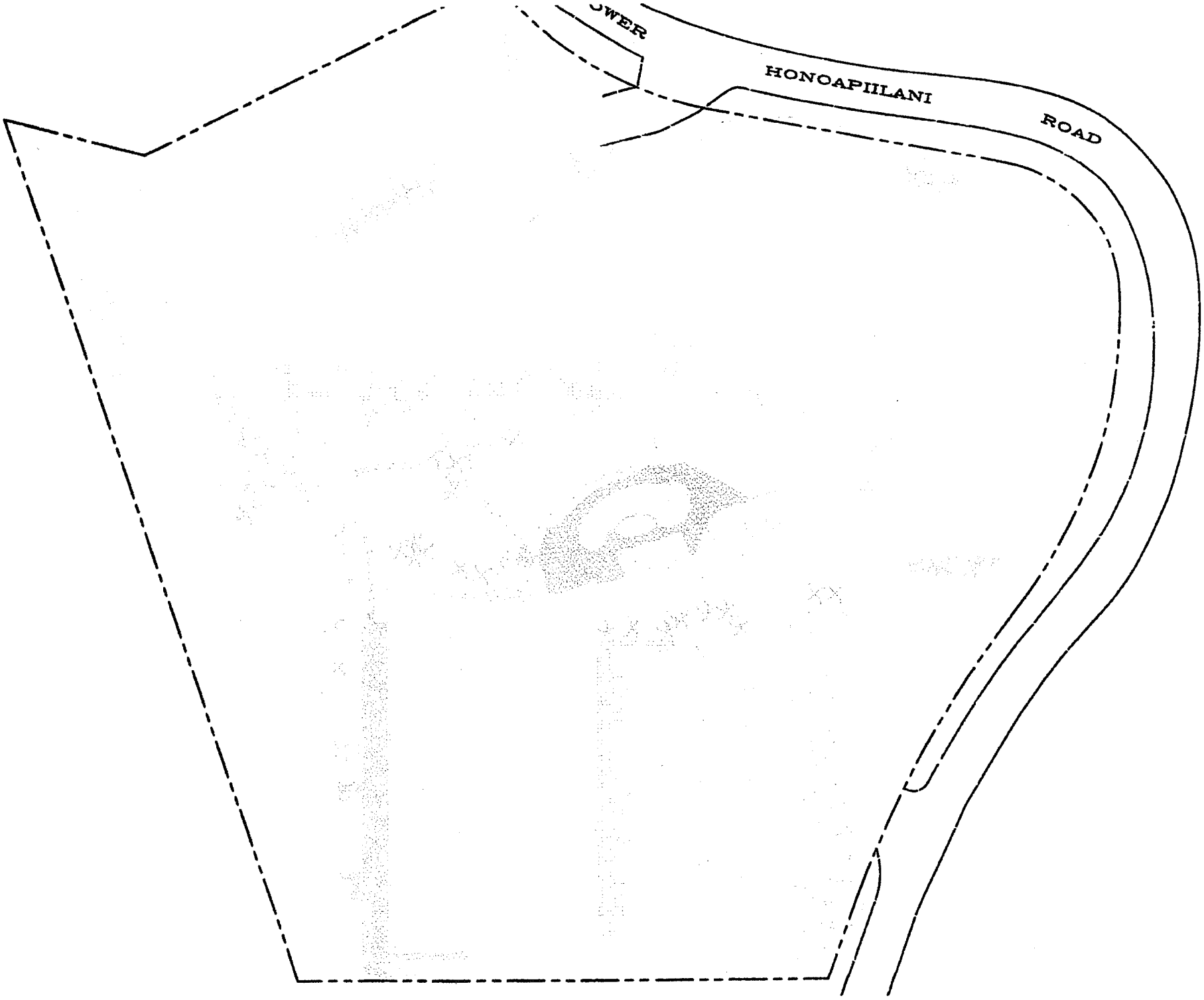
2.2 Land Use

The site of the development is zoned as "R-3 Residential District" by Maui County. In the West Maui Community Plan, the site is designated as "Single Family" and has a State Land Use "Urban" designation. In 1968, the Kahana Sunset AOAO applied for and obtained a zoning variance for multi-family apartment use for the property.

2.3 Topographic and Geotechnical Features

The existing topography at the project site is defined by graded apartment pads and paved parking areas, developed over a gently sloping land which descends south westerly towards the beach along the Keonenui Bay. The meandering Lower Honoapiilani Road defines the northern and eastern boundary of the property and the elevations along this road bordering the property ranges from 49.9 above Mean Sea Level (MSL) at the northern section of the upper entrance to 47.23 at the southern entrance. The site has a southwesterly slope of about 9 percent.

According to the U.S. Natural Conservation Services (NRCS), the soils in the project area belong to Waiakoa-Keahua- Molokai Association which defines them as *moderately deep, deep, nearly level to moderately steep, well drained soils that have moderately fine textured subsoil.* The soils have a surface layer of dark reddish brown, friable silty clay loam. Substratum is soft, weathered igneous rock. Specifically the site is comprised of three types of soils, namely, beach sand (BS), Kahana Silty Clay (KbC), and rough broken and stony land (rRS).



LE

1. W
2. W
3. IC
4. S
5. S
6. LI
7. FI
8. TI
9. P
10. M
11. D
12. IE
13. U
14. C

TREE

PALM

PLUM

SIDEV

CRM

CONC

COCO

A series of nine geotechnical borings were collected by Weideg in 2006, prior to repair of walls fronting A and F buildings. The logs relating to borings no. 1 to no. 6, were taken at locations in front of Building F, both makai and mauka of the new wall, indicate presence of "tan to bluff, moist, loose, and very fine to medium, poorly graded, coralline, slightly silty fill" In contrast, borings no.7 to no. 9, taken makai side of building A, indicate "clayey silt, grey-brown, moist, medium stiff with scattered fine to medium, sub-angular, weathered basaltic gravel" to a depth of 5 feet below the ground. This material is underlain by grey- brown and highly fractured basalt to the bottom of the boring.

2.4 Flora

The open space and grounds encompass two entrance driveways, and six parking lots. The rest of the area is grassed and landscaped with ornamental plants and shrubs and palm trees. There are no endangered species of plants on the property.

SECTION 3.0

DESCRIPTION OF EXISTING INFRASTRUCTURE

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SECTION 3.0

DESCRIPTION OF EXISTING INFRASTRUCTURE

This section presents a brief description of existing infrastructure at Kahana Sunset. The information presented in this report are compiled from review of existing plans, site visits and inspection, discussion with AOAO members, and search of public records.

3.1 Site Layout and Roadways

As mentioned in the previous sections, the development consists of six detached, two or three-stories, wood framed apartment buildings encompassing 79 apartments, on a 4.47-acre land parcel. The site also includes a 1,144 SF, single story, detached, four-bedroom structure used as the resident manager's dwelling. An additional 785 SF, structure which was added later adjacent to the manager's residence consists of three offices and a laundry room.

The five apartment buildings are referred to as Buildings A to F, with G as the Manager's residence and L, as the Laundry and offices. Details about the number of units, floor area and other specifics are shown in Table 3-1. The extent of Kahana Sunset construction, in relation to the total land area is about 41 percent. The remainder of the parcel consists of paved roadways and parking areas, planting strips and a central open space encompassing a pool, Jacuzzi, and barbeque and shower pavilion. The paved area which constitutes a little more than 25 percent of the land parcel is comprised of five parking lots covering about 39,700 SF with 103 parking stalls of which 24 stalls are not assigned. Two 24-feet wide driveways and the access roadway cover about 11,500 SF with adequate turn-around and width to accommodate access to emergency vehicles and fire engines. The central open space/recreational area, consists of a 12,000 gallon pool and Jacuzzi, a shower, restroom, barbeque pavilion and lawn area. Originally the central recreational area was separated from the beach by a short flight of stairs situated between a meandering seawall which demarcated edge of the developed land from the beach fronting the property along Keonenui Bay. A significant portion of the wall directly fronting Building F, was severely damaged by storms in recent years and has been removed. The northern section of the wall, immediately makai of the barbeque and shower pavilion, which

has survived the onslaught of the near shore storm waves and currents throughout the years, is badly undercut by wave action and storm surges, and in a state of eminent collapse.

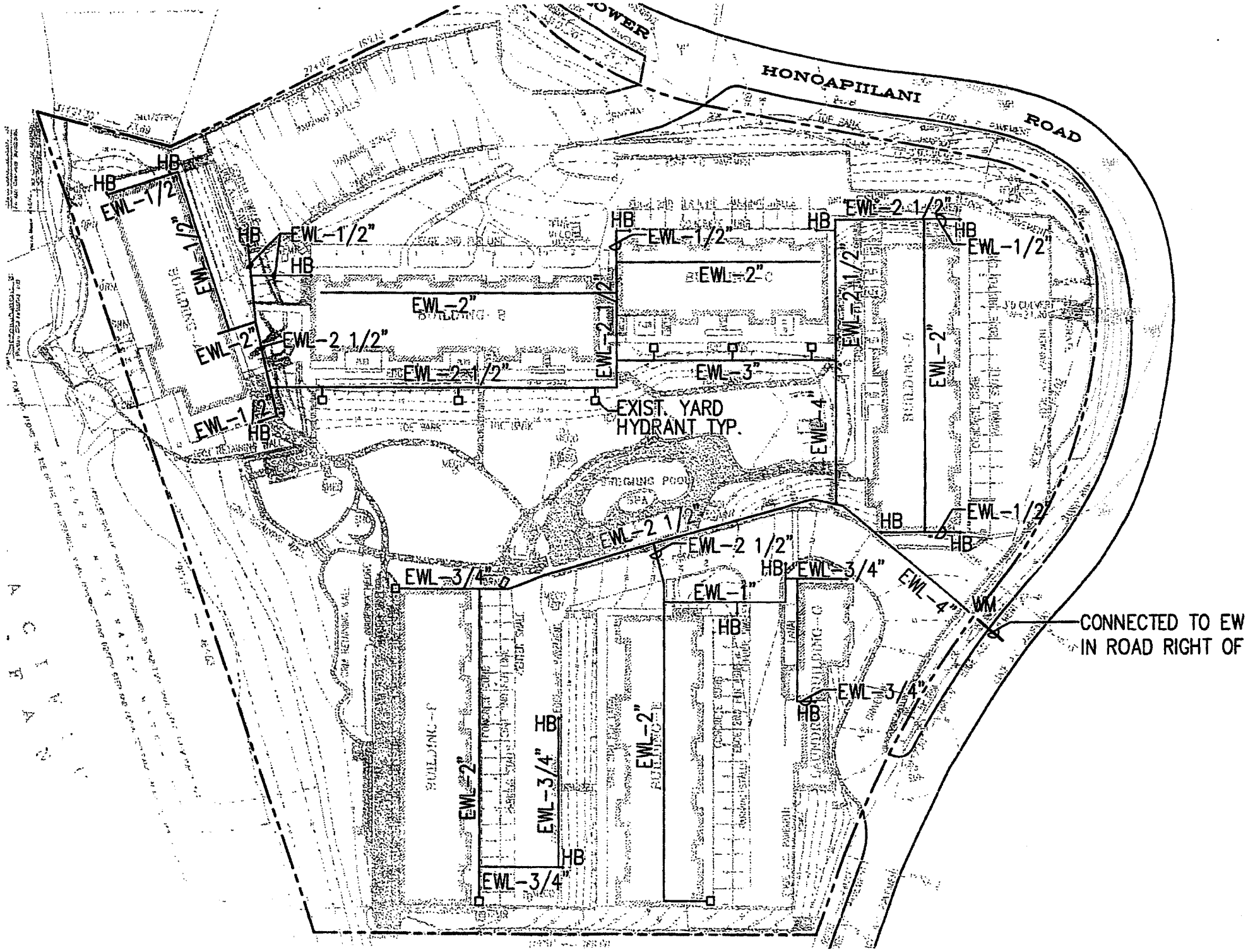
Table 3-1 Specific Details about Various Apartment Units in Kahana Sunset Complex

Building	No. of Units		Floor Area			No. of Parking Stalls	
	1-bedroom	2-bedroom	1-bedroom	2-bedroom	Total	Assigned	Unassigned
A		10		1066	10660	10	8
B	3	11	700	1052	15072	16	
C	3	8	700	1052	10516	11	3
D	3	11	700	1052	13672	14	4
E	5	11	70	1052	15072	16	2
F		12		1066	12792	12	7
G	1, 4-bedroom Unit		1144		1144		
L	3 offices and a Laundry		780		780		

In order to address the failure of the retaining wall fronting the BBQ stand, the Kahana Sunset AOAO, has commissioned preparation of a project Master Plan which proposes repair and modifications to existing protective seawall, and removal of non-complying structures on the property. The AOAO is also, in the process of applying for a shoreline setback variance which is necessary to allow the proposed construction work.

3.2 Water System

The existing water system at Kahana Sunset consists of a 4-inch lateral which supplies the development form the existing 12-inch transmission line running along the makai lane of the Lower Honoapiilani Road. As shown in Figure 3-1, the 4-inch lateral runs along the lower driveway and branches into a network of smaller size pipes, ranging from 4 to 3, 2 ½, 2, and ¾ inch laterals feeding various buildings and points of demand. There are two fire hydrants along the property line in L. Honoapiilani Road Right-of-Way. The first one is located about 60 feet north of the lower driveway, and the second hydrant is located close to the upper driveway and along the roadway shoulder. There is no information regarding the conditions of the existing


HONOAPIILANI
ROAD
HB
EWL-1/2"
EWL-2"
EWL-2 1/2"
EWL-3"
EWL-4"
EWL-1"
EWL-3/4"
EXIST. YARD
HYDRANT TYP.
WM
CONNECTED TO EW
IN ROAD RIGHT OF

water system at Kahana Sunset. It suffices to say that there is no report of any leaks, or complains about low water pressures from the residents.

Figure 3-2 Water Consumption at Kahana Sunset

Date	Consumption (Gallons X 1000)	No. of Days	Consumption (gallons per day)
12/15/2010	1143	61	18738
2/12/2011	1224	61	20066
4/14/2011	1318	59	22339
6/14/2011	1126	61	18459
8/15/2011	1465	62	23629
10/14/2011	1244	60	20733
12/14/2011	1078	61	17672
Average Daily Consumption			20231

A review of the actual water consumption based on billings of the Maui Department of Water Supply for 2011, as summarized in Table 3-2, indicate that actual water consumption in the development was much lower than the design demands. Accordingly, daily water consumption at Kahana Sunset, during 2011 ranged from 17,672 to 23,629 gallons per day with the average consumption of 20,231 gallons per day. The Water System Standards, also enumerate, the requirements for fire flow at Kahana Sunset to be 2000 gallons per minute for two hours duration.

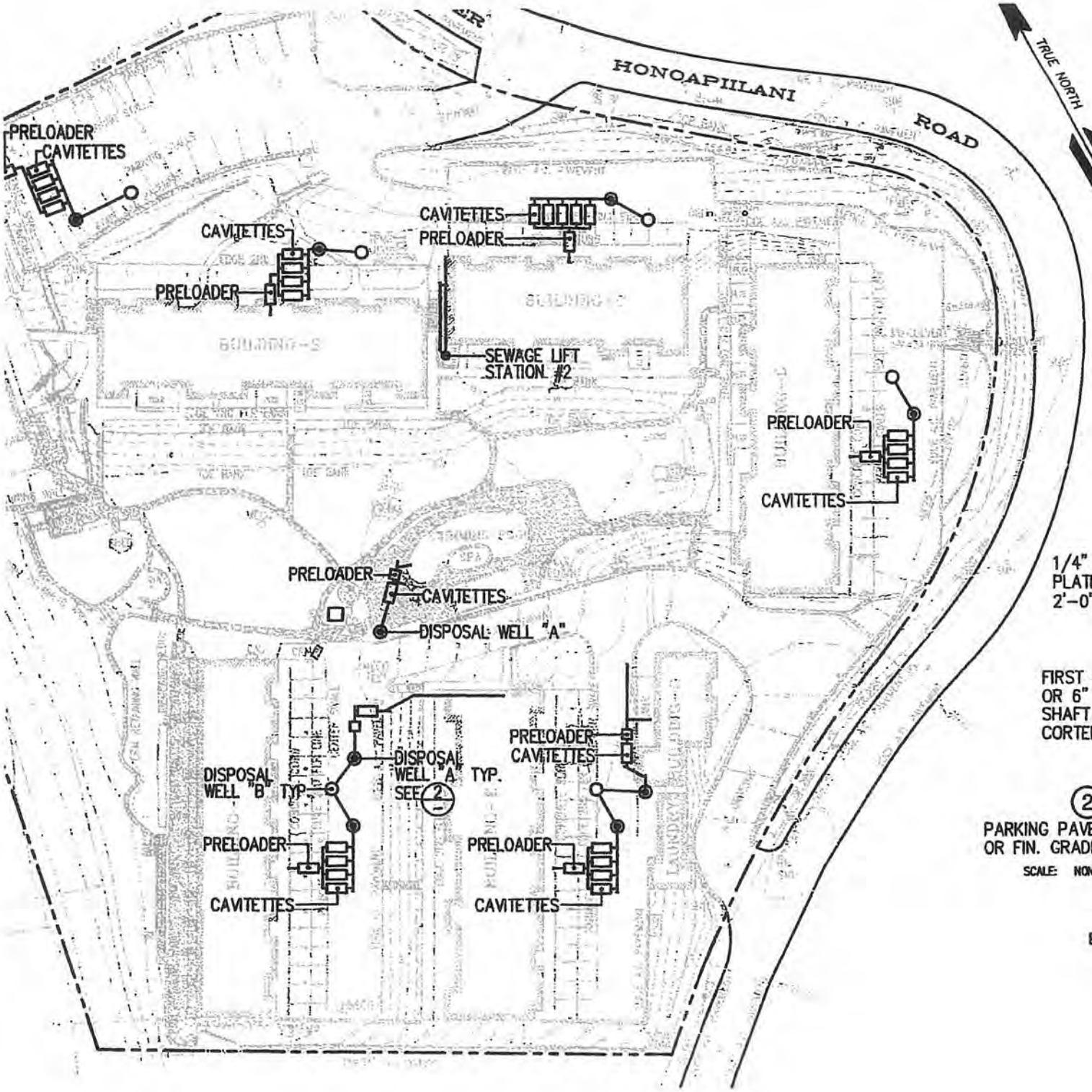
3.3 Wastewater System

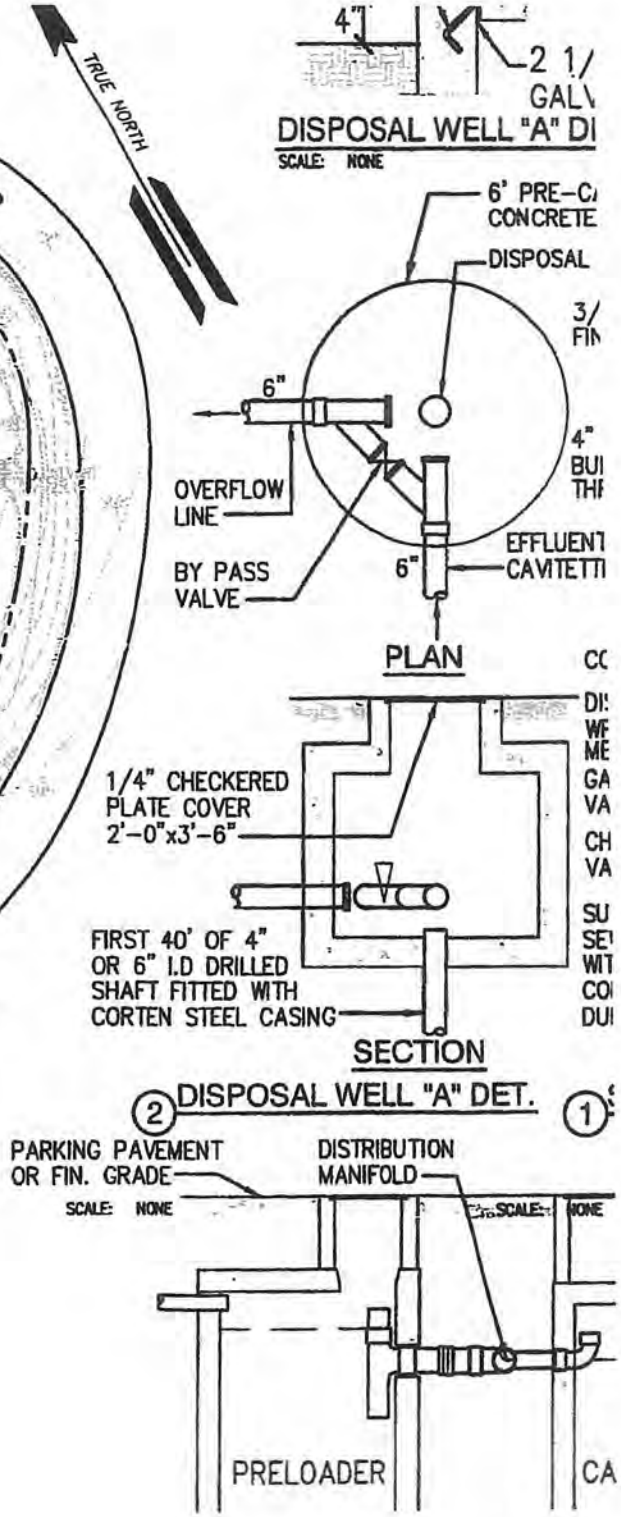
Wastewater system at Kahana Sunset has undergone major modifications and reconstruction since the inception of the development. Originally, the sewage collection and disposal system consisted of individual "Cavitette" wastewater treatment and disposal dry wells for each building. Figure 3-2, shows the location and configuration of this system which is no longer in use and abandoned. Cavitette, refers to a commercial brand of aerobic waste treatment system in which wastewater is exposed to oxygen (air) in an enclosed chamber, to allow the micro-

organisms present in the waste stream to breakdown and treat the waste. The result of this breakdown and treatment is the settling of the bio-mass which can then be removed from the settling tank and transported for off-site disposal. The effluent from the process, however, is diverted into an injection/dry well for final disposal. As shown in Figure 3-2, wastewater from each building is collected by a 4-inch sewer line which delivers is to an individual Cavitette system. The Cavitette at Kahana Sunset consisted of multi chambers units, located downstream of a pre-loader where air was introduced to waste stream. The waste would then enter four settling chambers for further treatment. Effluent from each multi-chamber Cavitette wastewater treatment system for each building was then conveyed to one or two 60-feet deep disposal wells located adjacent to the treatment system.

Sometimes 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. However, no information about the sizes, alignments and slopes of these laterals are available.

The 4 feet by 6 feet wet well is about 13 feet deep and is equipped with two "Myers" submersible, constant speed solid handling pumps. Each pump is equipped with a 5 Horse Power, 750 RPM, constant speed electric motor capable of pumping up to 720 gallons per minute. The system has a hundred percent redundancy, meaning that during normal operation one pump is on line, while the second is on standby to be used during emergency situations. The wet well is equipped with level switches that direct the intermittent on and off cycles of the pumping unit in operation. The wastewater is thus pumped via a new 4-inch sewer force main from the wet well to an existing sewer manhole in the Lower Honoapiilani Road Right-of-Way, in the vicinity of the lower entrance/driveway to Kahana Sunset. An existing 18-inch sewer trunk line along the Lower Honoapiilani Road, conveys the waste stream to the West Maui Wastewater Treatment Plant for final treatment and disposal. There is no as-built construction plans for the sewer system in Kahana Sunset.


HONOAPIILANI
ROAD
TRUE NORTH
PRELOADER
CAVITETTES
CAVITETTES
PRELOADER
PRELOADER
CAVITETTES
PRELOADER
SEWAGE LIFT STATION #2
PRELOADER
CAVITETTES
PRELOADER
CAVITETTES
DISPOSAL WELL "A"
DISPOSAL WELL "B" TYP.
DISPOSAL WELL "A" TYP. SEE 2
PRELOADER
CAVITETTES
PRELOADER
CAVITETTES
PRELOADER
CAVITETTES


4"
2 1/
GALV
DISPOSAL WELL "A" DI
SCALE: NONE
6' PRE-C
CONCRETE
DISPOSAL
3/
FIN
6"
4"
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THR
OVERFLOW LINE
BY PASS VALVE
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EFFLUENT
CAVITETTI
PLAN
CC
DI
WF
ME
GA
VA
CH
VA
SU
SE
WIT
CO
DU
1/4" CHECKERED PLATE COVER 2'-0"x3'-6"
FIRST 40' OF 4" OR 6" I.D DRILLED SHAFT FITTED WITH CORTEN STEEL CASING
SECTION
2 DISPOSAL WELL "A" DET.
1
PARKING PAVEMENT OR FIN. GRADE
DISTRIBUTION MANIFOLD
SCALE: NONE
SCALE: NONE
PRELOADER
CA

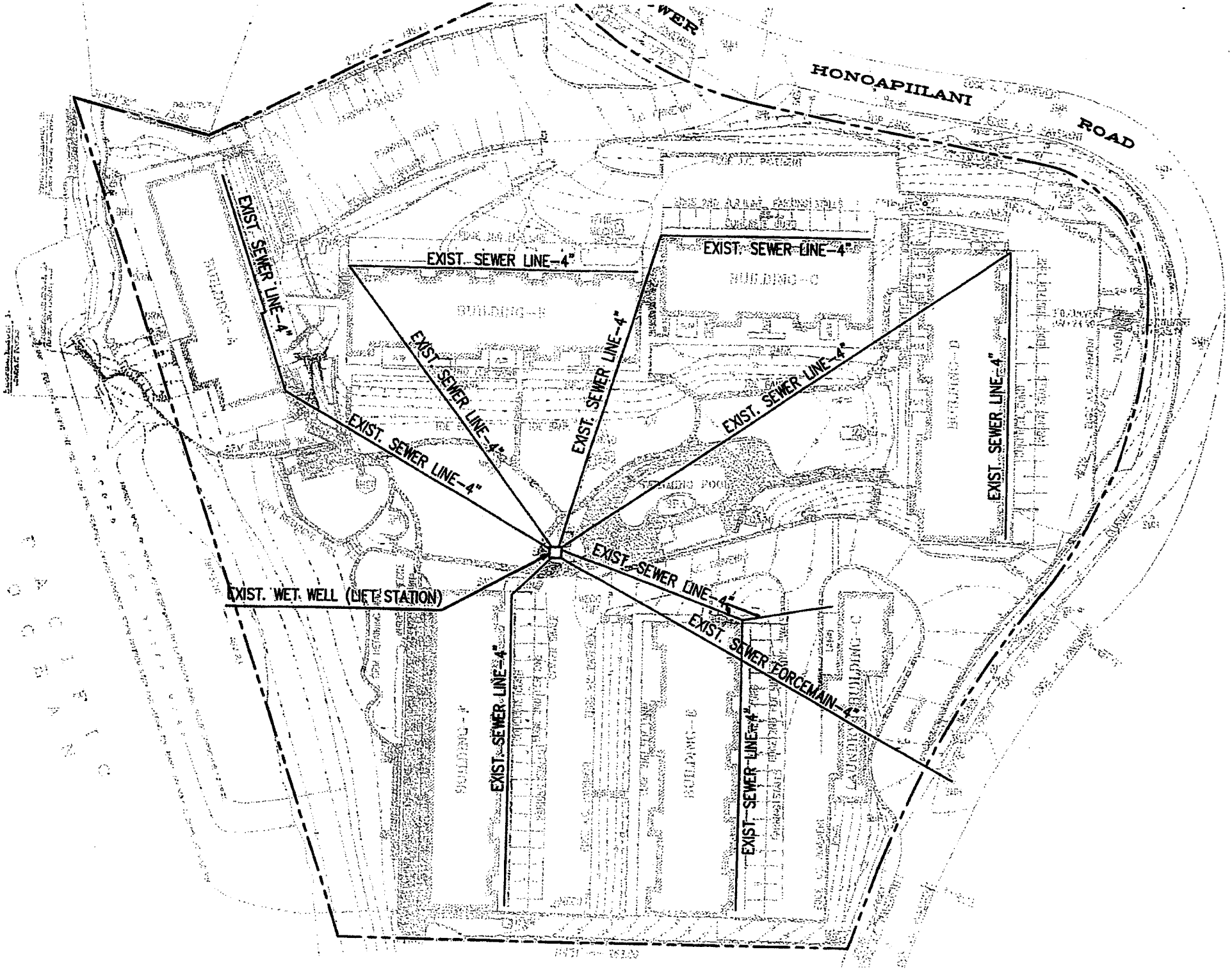
A schematic layout and components of the Kahana Sewer System infrastructure, developed based on information from the owner is depicted in Figure 3-3.

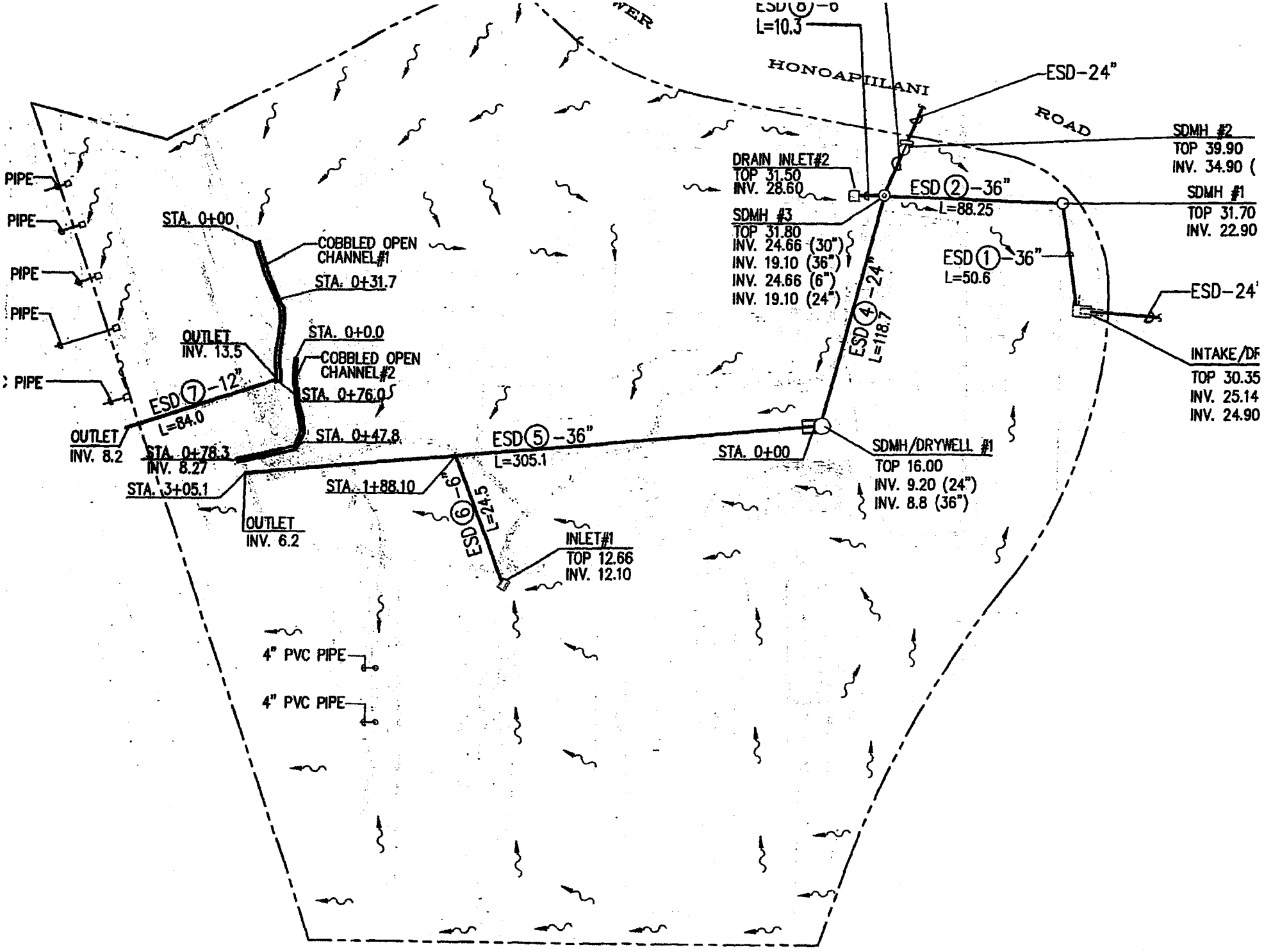
3.4 Storm Drainage System

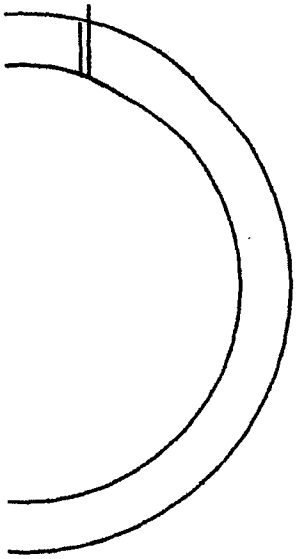
The existing drainage infrastructure on the property consists of drain lines of various sizes, drain inlets, drywells, storm drain manholes, and cobble-lined drainage channels which are located at strategic locations throughout the development to intercept, collect and convey storm runoff by means of a 36-inch outfall and several other smaller drainage pipes into the Keonenui Bay.

In general, storm runoff generated in open planted areas with bare soil mostly infiltrate into the ground. Over flows from these areas, join the overland sheet flow in the central open and grassed yard, the flows from roofs' down spouts, at times channelized or sheet flow on the paved roadways and parking, are all directed towards various inlets and intake structures, constructed within the property boundaries, before they ultimately discharge into the bay via the 36-inch outfall. Surface flow patterns and various inlets and other drainage facilities and details at project site, are depicted in Figure 3-4 and Figure 3-5. In summary and as indicated the storm water infrastructure includes, eight drain lines of various sizes ranging from 6-inch to 36-inch, four storm drain manholes, one intake/dry well, two 24-inch wide rectangular cobbled open channels, several swales collecting and diverting roof runoffs to various inlets, more than 12 drain inlets and a series of 4-inch drain pipes which mostly drain the lawn/lanai areas makai of Buildings A.

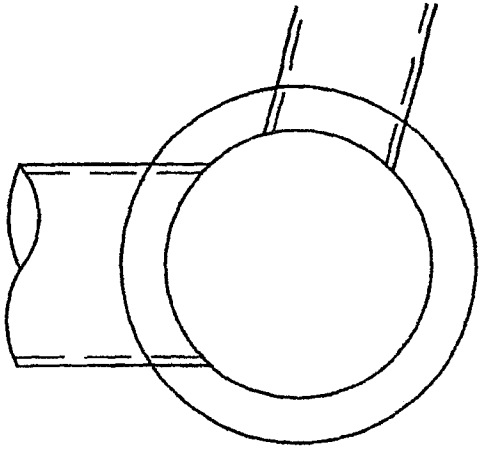
A detailed drainage report for Kahana Sunset prepared by Marc M. Siah & Associates, Inc., dated April 2012, quantifies total storm runoff generated on Kahana Sunset Property at 11.53 cfs. In addition to this flow, two other sources of off-site storm flow feed into the Kahana Sunset storm drain system. They include flows from portions of the Lower Honoapiilani Road Right-of-Way in the vicinity of the Kahana Sunset, plus storm runoff overflows from the two


HONOAPIILANI
ROAD
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER LINE-4"
EXIST. SEWER FORCEMAIN-4"
EXIST. WET WELL (LIFT STATION)
BUILDING-B
BUILDING-C
BUILDING-D
BUILDING-E
BUILDING-F
BUILDING-G
BUILDING-H
LAUNDRY BUILDING

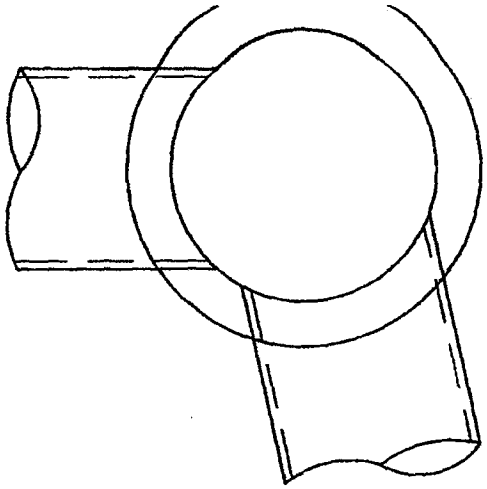

HONOAPIILANI
ROAD
ESD-24"
SDMH #2
TOP 39.90
INV. 34.90
SDMH #1
TOP 31.70
INV. 22.90
ESD-24'
INTAKE/DF
TOP 30.35
INV. 25.14
INV. 24.90
DRAIN INLET#2
TOP 31.50
INV. 28.60
SDMH #3
TOP 31.80
INV. 24.66 (30")
INV. 19.10 (36")
INV. 24.66 (6")
INV. 19.10 (24")
ESD 2 -36"
L=88.25
ESD 1 -36"
L=50.6
ESD 4 -24"
L=118.7
L=10.3
SDMH/DRYWELL #1
TOP 16.00
INV. 9.20 (24")
INV. 8.8 (36")
STA. 0+00
ESD 5 -36"
L=305.1
INLET#1
TOP 12.66
INV. 12.10
ESD 6 -6"
L=245
STA. 1+88.10
OUTLET
INV. 6.2
STA. 3+05.1
STA. 0+78.3
INV. 8.27
OUTLET
INV. 8.2
ESD 7 -12"
L=84.0
STA. 0+47.8
STA. 0+76.0
COBBLED OPEN
CHANNEL#2
STA. 0+0.0
OUTLET
INV. 13.5
STA. 0+31.7
COBBLED OPEN
CHANNEL#1
STA. 0+00
PIPE
PIPE
PIPE
PIPE
PIPE
4" PVC PIPE
4" PVC PIPE



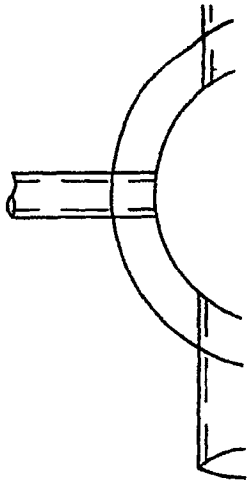
WELL #1



PLAN-SDMH/DRYWELL #2
SCALE: 3/8"=1'-0"



PLAN-SDMH #1
SCALE: 3/8"=1'-0"



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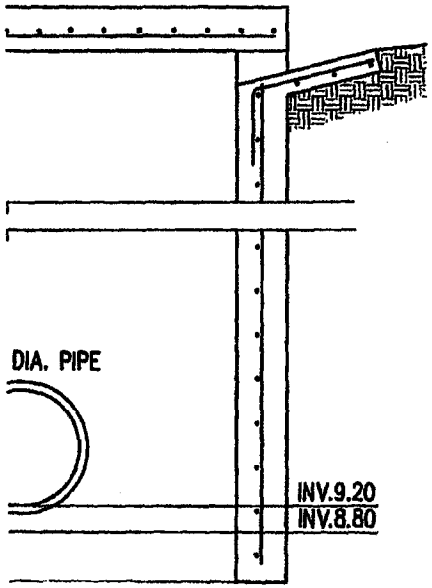
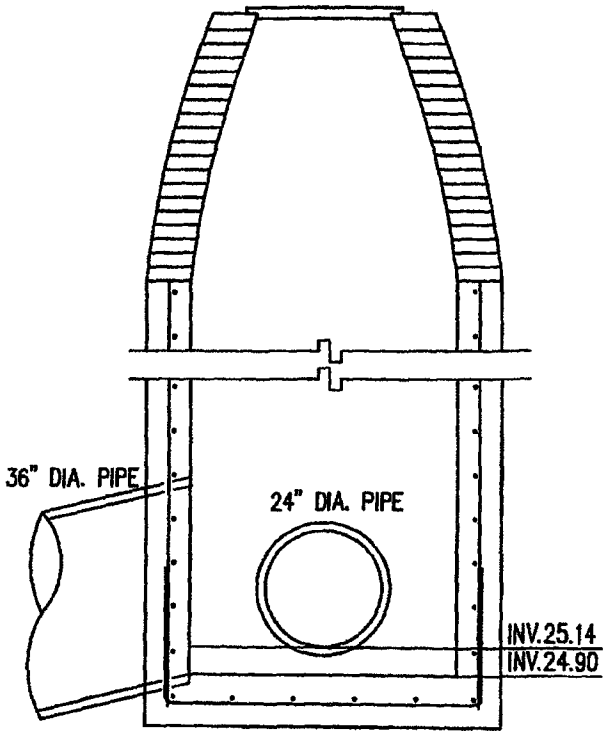
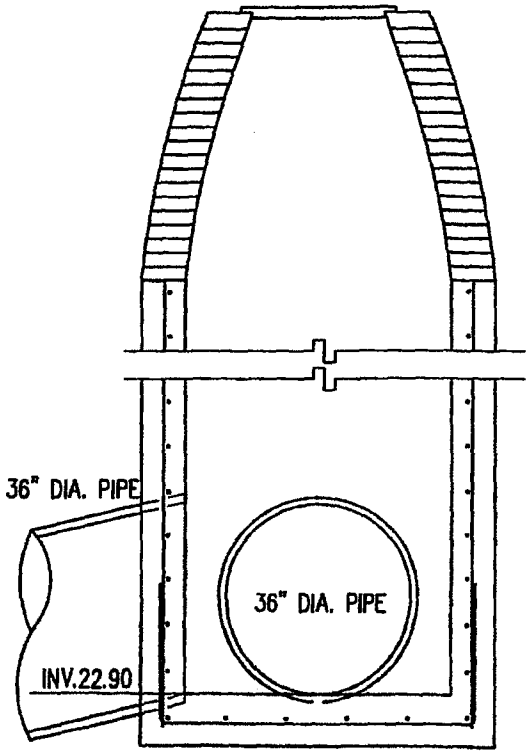
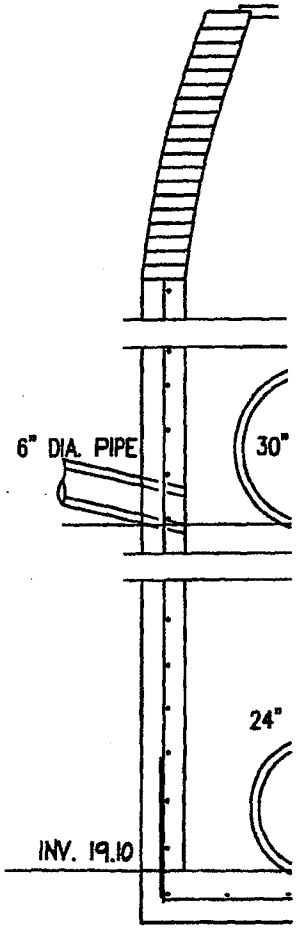


DRYWELL #1







retention/detention basins at Napili Villas. These basins were originally constructed with the capacity to contain and hold storm runoff volumes generated on the entire Napili Villas Development during 10-year design storms. During severe storms and emergencies, however, a spillway system would allow overflow from these two retention/detention basins to flow via a 24-inch storm drain/culvert traversing the Lower Honoapiilani Road, into a dry-well/intake structure at Kahana Sunset. In short, extraneous off-site storm runoff 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 makai properties. In an agreement between the County and Kahana Sunset AOAO, 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. Consequently, the total combined potential runoff from Kahana sunset, including off-site flows, discharging into the Keonenui Bay via the existing 36-inch outfall is 64.65 cfs.

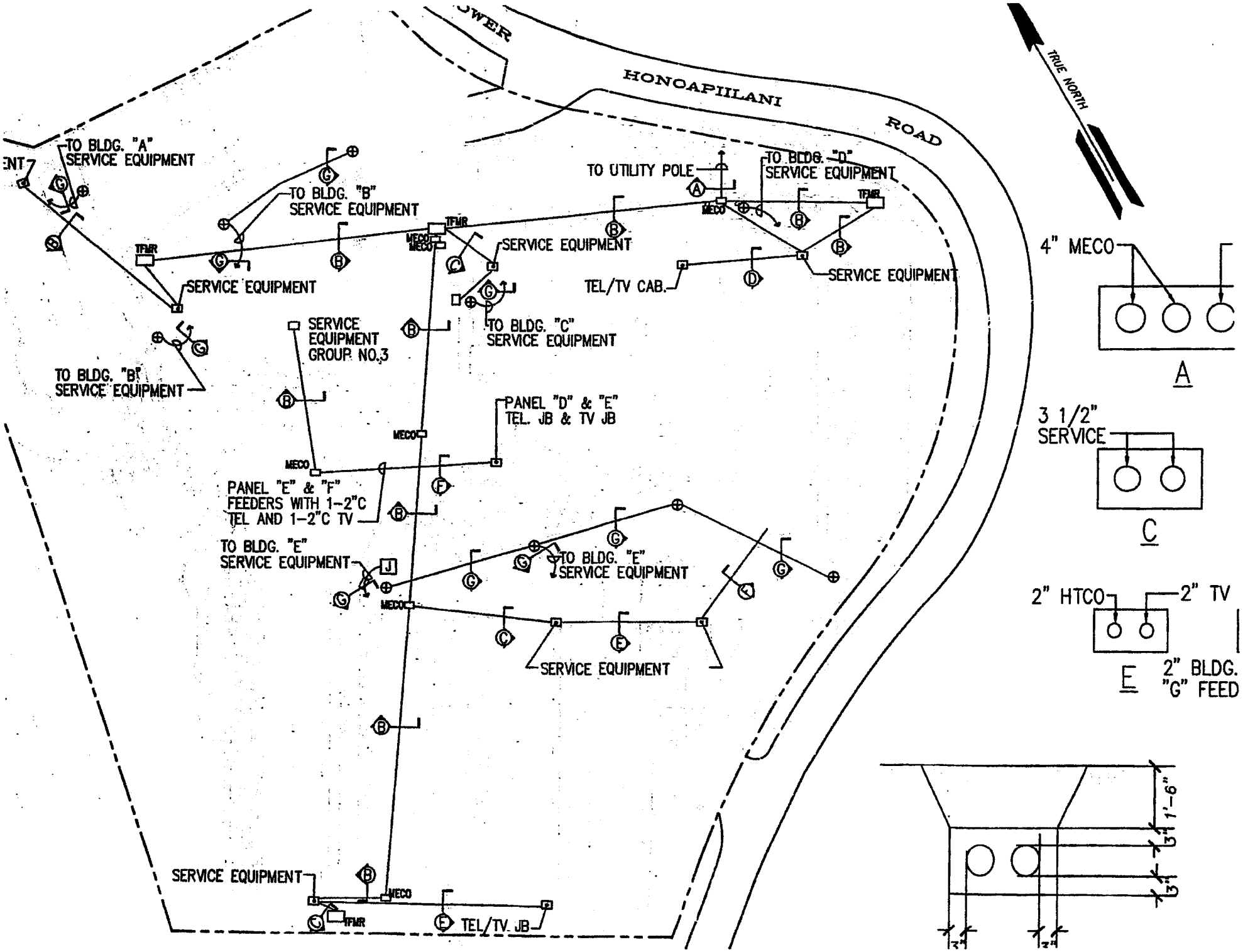
As detailed in the Preliminary Drainage Report for Kahana Sunset, the existing storm drain inlets in the Lower Honoapiilani Roadway right-of-way, in the vicinity of the Kahana Sunset Development, and the allegedly cracked 24-inch culvert which conveys storm water overflows from Napili Villas into the Kahana Sunset's system, are in a state of disrepair. The two roadway inlets are not adequately maintained to efficiently handle storm runoff from the road right-of-way. Stray and unmitigated roadway storm runoff sheet flows overland and enters Kahana Sunset, which at times, has caused localized erosion and property damage. According to the County of Maui Department of Public Works, the existing roadway storm drainage infrastructure, are to be upgraded in near future as part of the Lower Honoapiilani Road Improvements, Phase 4, Project.

3.5 Electric, Telephone and Cable TV Systems

Electric power, telephone and cable TV services are supplied to Kahana Sunset by Maui Electric Company, MECO, Hawaiian Telephone, and Oceanic Cable companies, respectively. A 4.16 KV high voltage, overhead MECO power line, which runs along Lower Honoapiilani Road supplies the development with 60 Hz, 120 Volts single phase electricity. The power is transmitted and distributed throughout the development by means of directly buried or concrete jacketed ducts to transformers which then feed individual buildings and other points of demand throughout the development. Telephone and cable TV service lines are also bundled through the same ducting system. An electrical site plan indicating the power and lighting as well as telephone and cable service, is presented in Figure 3-6. A 35 KW switchable 1 phase/3 phase, 60 Hz, electric generator with rated capacity of 43 kVA, which runs on propane, is used as the emergency generator on standby to power the sewer pumps, during emergency power outages.

3.6 Propane Tanks

There are three propane tanks on-site in Kahana Sunset. They include a 124-gallons tank located at the north end of Building F, a 1 228-gallons tank situated adjacent to the offices and laundry facility, and a 288-gallons tank located adjacent to the pool and the sewage pumping station. The first two tanks are used for laundry operation, whereas the last tank is used for heating the pool and the Jacuzzi, gas stove at the barbeque pavilion, as well as running the emergency generator for sewage pumping station during power failures and other electrical emergencies.


HONOAPIILANI
ROAD
TRUE NORTH
TO BLDG. "A" SERVICE EQUIPMENT
TO BLDG. "B" SERVICE EQUIPMENT
TO UTILITY POLE
TO BLDG. "D" SERVICE EQUIPMENT
SERVICE EQUIPMENT
TEL/TV CAB.
TO BLDG. "C" SERVICE EQUIPMENT
SERVICE EQUIPMENT GROUP NO.3
PANEL "D" & "E" TEL. JB & TV JB
PANEL "E" & "F" FEEDERS WITH 1-2"C TEL AND 1-2"C TV
TO BLDG. "E" SERVICE EQUIPMENT
TEL/TV JB
TFMR
MECO
4" MECO
A
3 1/2" SERVICE
C
2" HTCO
2" TV
E
2" BLDG. "G" FEED
1'-6"
3"
3"
2"
2"

SECTION 4.0

INFRASTRUCTURE ADEQUACY EVALUATION

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SECTION 4.0

INFRASTRUCTURE ADEQUACY EVALUATION

In this section adequacy of the existing infrastructure at Kahana Sunset Condominium Complex is evaluated. The evaluation is based on demand estimates for various utilities presented in Appendix A, as well as head loss calculations, system head, and pump performance curves presented in Appendix B.

4.1 Potable Water System

Based on the domestic water consumption guidelines, promulgated by the State of Hawaii Water Systems Standards, potable water for Kahana Sunset is estimated from as high as 560 gallons per day per apartment unit for residential areas, to as low as 350 gallons per day for resorts. In other words daily potable water demands at Kahana Sunset can range from 28,000 to 44,800 gallons per day. However, review of the actual water consumption based on billings of the Maui Department of Water Supply for 2011, as summarized in Table 3-2, indicates that actual water consumption in the development was much lower than the design demands. Accordingly, water consumption at Kahana Sunset, during 2011 ranged from 17,672 to 23,629 gallons per day with an average rate of 20,231 gallons per day.

The Water System Standards, Table 100-19, presented in Appendix A, also enumerate the requirements for fire flow at Kahana Sunset to be 2000 gallons per minute for duration of two hours.

Based on review of maintenance records and interviews with residents, there is neither an indication of major leaks in the system, nor lack of adequate pressures. However, pressure tests must be conducted on existing fire hydrants at Kahana Sunset to ensure availability of 2000 gallons per minute of fire flow for two hours duration while maintaining 40 PSI pressure at critical fire hydrant.

Figure 3-2 Water Consumption at Kahana Sunset

Date	Consumption (Gallons X 1000)	No. of Days	Consumption (gallons per day)
12/15/2010	1143	61	18738
2/12/2011	1224	61	20066
4/14/2011	1318	59	22339
6/14/2011	1126	61	18459
8/15/2011	1465	62	23629
10/14/2011	1244	60	20733
12/14/2011	1078	61	17672
Average Daily Consumption			20231

4.2 Waste Water System

Based on the County of Maui Wastewater Flow Standards, of 255 gallons per unit per day for apartment complexes, the estimated wastewater flow from the Kahana Sunset Apartments only, is about 20,400 gallons per day. The waste stream from the laundry which houses four washing and dryer machines, is estimated at 600 gallons per day. The total wastewater from the development is about 21,000 gallons per day. A break-down of daily average wastewater flow from various buildings in the development is presented in Table 4-1.

As mentioned in preceding section, the wastewater collected from various building within the development flows by gravity via a series of sewer laterals, from various buildings on the grounds, to a sewage wet well located in the open central area adjacent to the pool. As mentioned earlier in this report, there are no as-built drawings available for these lines. Therefore, since the sizes and slopes of these laterals are not known, adequacy of these sewer laterals cannot be evaluated.

Table 4-1 Wastewater Generation Rates at Various Buildings in Kahana Sunset

Building	Average Daily Wastewater Flow (gallons per day)
Building A	2550
Building B	4080
Building C	2805
Building D	3570
Building E	4080
Building F	3060
Building G	255
Laundry and Offices	600
Total	21,000

The wet well is 4 by 6 feet in cross section with a depth of 13 feet, and houses two 5 HP, 1750 RPM constant speed pumps. The pump controls and relays switches are all contained in a NEMA enclosure installed on the side wall of the wet well. Only one of the two pumps is on duty at any given time. The pumping unit on duty, intermittently cycles off and on several times a day depending on level switch settings and the rate of wastewater flow into the wet well. The system head curve, which represents the resistance of the piping system to pumping process, developed for the existing pump is shown in Figure 4-2. Accordingly the total static head on the pumping unit is 28.40- feet.

A review of pump performance curve shown in Appendix B, indicates that the pumping unit on duty, could pump between 300 to 375 gallons per minute at 40 to 45 feet of head with an efficiency of 60to 62 percent. On average, the unit delivers about 350 gallons per minute of raw wastewater to the sewer manhole in L. Honoapiilani Road, at 60 percent efficiency. As the calculations in Appendix B, show, assuming an 8 feet range set on the level switches in the wet

well, the pump would cycle between off and on, fifteen times over 24 hours, to handle the average daily wastewater flow generated on-site. Each on-cycle would last a little more than 4 minutes.

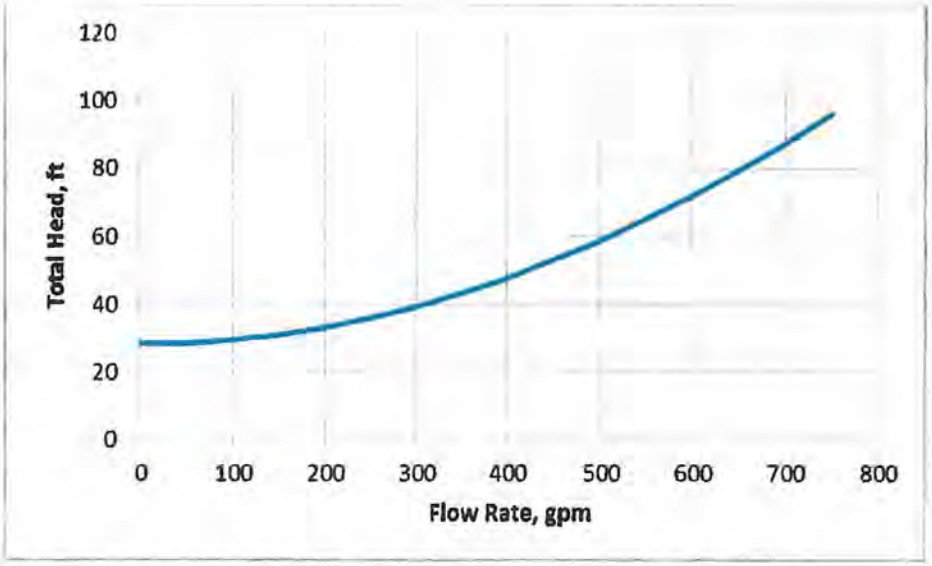


Figure 4-1 System Head Curve for pumping unit at Kahana Sunset

4.3 Electric, Telephone and Cable TV Systems

As mentioned in the preceding section, electric power, telephone and cable TV services are supplied to Kahana Sunset by Maui Electric Company, MECO, Hawaiian Telephone, and Oceanic Cable companies, respectively. A 4.16 kV high voltage, overhead MECO power line, which runs along Lower Honoapiilani Road supplies the development with 60 Hz, 120 Volts single phase electricity. The power is transmitted and distributed throughout the development by means of directly buried or concrete jacketed ducts to transformers which then feed individual buildings and other points of demand throughout the development.

Electrical demand, calculations for Kahana Sunset development is presented in Appendix A. Accordingly, the total electrical load at the project site is estimated at 1,159 kVA. A break-down of various electrical loads throughout the development is presented in Table 4-3. The existing

power distribution and lighting system, over the years, has proven to adequately supply this demand during normal and emergency conditions.

Telephone and cable TV service lines, at Kahana Sunset are also bundled through the same ducting system as the power line supplying every unit in the development.

Table 4-2 Estimates of Various Electrical Loads in Kahana Sunset

Building Designation	No. of Units	Electrical Load (VA)
Building A	10, 2-bedroom Units	139,613
Building B	11, 2-bedroom & 5, 1-bedroom Units	219,885
Building C	8, 2-bedroom & 3, 1-bedroom Units	151,525
Building D	11, 2-bedroom & 3, 1-bedroom Units	193,513
Building E	11, 2-bedroom & 5, 1-bedroom Units	219,885
Building F	12, 2-bedroom Units	167,536
Building G	1, 4-bedroom Unit	13,629
Laundry	3 Offices & Laundry	11,619
Total	80 Apartment Units, 3 offices & Laundry	1,117,270

4.4 Storm Drain System

Kahana Sunset's Strom Drain infrastructure is evaluated and discussed in details in the Preliminary Drainage Report prepared By Marc M. Siah & Associates, Inc. dated April 2012. In the following paragraphs only a synopsis of this system is presented. For detailed discussion of the system the reader is referred to the latter report for additional information. Accordingly, the total runoff generated by 10-year design storm, on the Kahana Sunset property was estimated at 11.53 cfs. Overall drainage concept in the development of Kahana Sunset is based on maximizing absorption of runoff on site by means of providing permeable surfaces such as lawn, and planting patches with bare soil, and drywells. The balance of surface runoff, not

directly absorbed by ground surface, is directed and conveyed by surface sheet flow, swales, open channels, drain inlets and drainage pipes, intro the Keonenui Bay. As discussed in the Preliminary Drainage Report, storm runoff from off-site mauka properties as well as some flow generated on Lower Honoapiilani Road Right-of-Way, enter into the Kahana Sunset drainage infrastructure prior to disposal via a 36-inch outfall into the Bay. The contribution of Kahana Sunset storm flow to the total runoff discharge into the bay is 11.53 cfs. In contrast, off-site flow traversing the development, can reach as high as 53.12 cfs. In other words, storm runoff discharge from Kahana Sunset could be as low as 17.8% of total discharge into the bay.

Referring to the Strom drainage infrastructure plan presented in the preceding section, the Preliminary Drainage Report concludes that all drain pipes with the exception of Drain line # 6, in Kahana Sunset Drainage system, are adequate to conveys potential runoff flows from their tributary areas. However, storm drain line No. 6, which conveys storm runoff collected by the inlet # 1, located at the north east corner of Building F, is inadequate. The calculations further confirms the observation by the residents of Kahana Sunset Condominium, that during severe storm events, the inlet # 1, over flows and floods the area. Based on these calculations replacing, the existing 6-inch line with an 8-inch drain line will alleviate the flooding in the area.

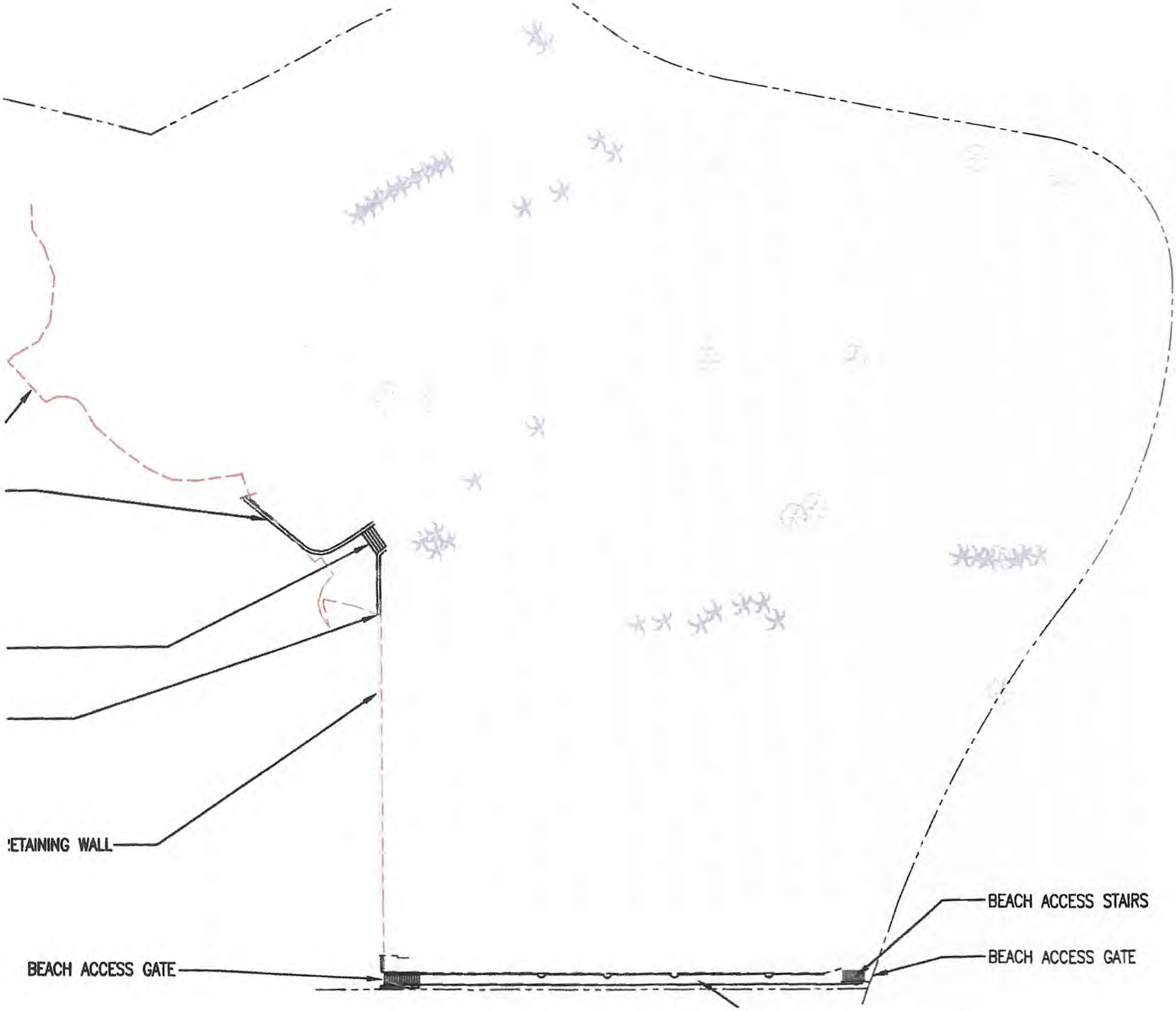
The 24-inch storm drain line, SDL #4, which connects SDMH # 3 located in the paved area between Buildings C and D to the main SDMH/ Dry Well # 1, in the central open space, although has the capacity to convey the potential runoff form it's contributory areas, it creates a bottle neck in the system. During major storm events, when contribution from Napili Villas' development and runoff from roadway right-of-way are the highest, this storm drain flows 70.56 percent full. The velocities in this line would reach as high as 23.26 fps. The Hydraulic Grade Line, HGL, calculations show that the 24 inch line causes water levels in the upstream manhole, SDMH # 2, to rise to 26.68 feet level, merely less than five feet below the ground surface. The impact of high HGL reaches even to Intake/Dry Well # 2. In other words, during a very severe storm when, off-site flows reaching Kahana Sunset may become even larger than the anticipated 53.12 cfs, both SDMH # 2, and the Intake/Dry Well # 2, may overflow causing

material damage to the development. Replacing this segment of drain line with a larger 30-inch or 36-inch line, would reduce flow velocities and alleviate hydraulic inadequacy of the system during sever events. It would further ensure that system will have excess capacity for conveyance of unanticipated and unusual off-site runoff volumes. The hydraulic calculations also indicate that the two cobble-lined open channels are more than adequate for conveyance of storm waters from their respective tributary areas.

4.5 Proposed Improvements

As mentioned in the previous sections, the exposure of Kahana Sunset to north swells and trade wind waves which undergo significant transformation as they approach the land and enter the Keonenui bay, causes recurring beach erosion and accretion with occasional and at times severe structural damage to foundations and footings of existing protective coastal fortifications at the property. Over the past few years, the Kahana Sunset AOAO has had to deal with reconstruction and repair of the existing protective seawalls under emergency conditions. At the present time, in order to address the failure of the retaining wall fronting the BBQ pavilion/shower and to construct additional modifications to the protective seawalls, the Kahana Sunset AOAO, has commissioned preparation of a project Master Plan which delineates the scope and extent of repair and modifications to existing protective seawalls, and removal of non-complying structures on the property.

The proposed master plan calls for removal of the failing sea wall fronting the barbeque pavilion. Two new flanking walls enveloping a semi-circular stair set underlain by a curtain wall will replace the failing sea wall. The location and the configuration of the proposed improvements are based on special attention to and compliance with setback requirements and concerns. All other structures seaward of this new scheme are to be demolished and removed. The proposed site improvements are delineated and presented in Figure 4-2.



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Concurrent with the master plan, the AOAO is also, in the process of applying for a Shoreline Setback Variance (SSV) and Special Management Area (SMA) Use Permit. The SSV is necessary to allow additional construction work on the failing seawall and other planned modifications and additions to protective seawalls and coastal structures within the Shoreline Setback Area. In compliance with the State environmental review process, the Kahana Sunset AOAO is also preparing an Environmental Assessment for these modifications and renovations.

4.6 Conclusions and Recommendations

Conditions and capacities of existing infrastructure in Kahana Sunset, reviewed in this report, lead to the conclusion that overall, and despite the relative old age of the facilities, they are mostly adequate and in good operating conditions. The performance of the Kahana Sunset AOAO, in up keep and maintenance of the facilities are commendable. In the following paragraphs, a number of suggestions and recommendation are offered for improving the conditions and alleviating some shortcomings:

Roadways and Parking Lots – All Paved surfaces along the driveways and parking areas are in good condition, with adequate lighting, and no vehicular or visibility obstruction. Suggested improvements may include:

a. Provide new marking for parking stalls and roadway centerline;
b. Designate by marking at least one stall for handicap parking in each parking area;
c. Designate specific parking area for loading and unloading of delivery trucks;
d. Install signage warning for slippery road when raining along the lower driveway.

Water System - The system is adequate to supply the water demand at the development and no shortcomings or defects were observed in the system. There are no records of major system leaks or low water pressures at the development. It is recommended, however, that arrangement be made with the County Fire Department for testing of all hydrants on the

grounds including the two in the L. Honoapiilani Right-of-Way, to ensure availability of adequate water flow and pressure for fire-fighting purposes.

Wastewater System – As mentioned in this report there is no as-built drawings for wastewater system at Kahana Sunset. The evaluation is based on site visits and information compiled from the owners' representatives and excludes adequacy calculations for sewer laterals connecting various buildings to the wet well. The following recommendations are, therefore, offered:

a. Determine the sizes, alignment, and the slopes of all existing sewer from their connection points at each building to their termini at the sewer wet well and pumping station;
b. Inspect and determine the dimensions, depth, and invert of the wet well;
c. Verify the level switch settings and control in the wet well;
d. Determine invert of laterals discharging into the wet well;
e. Prepare a set of as-built drawings for wastewater system to be used for system modifications and/or improvements.

Electric, Telephone and Cable TV Systems – There is no observable or reported short comings for power and telephone system at Kahana Sunset.

Storm Water System – As detailed in preceding sections and separately in the Preliminary Drainage Report, the existing storm drain system at Kahana Sunset, although performs perfunctorily, it needs, certain modifications and upgrading. The list of recommendations for improvements to on-site drainage infrastructure shall include:

a. Design and construction of a new terminus for the 36-inch storm drain/outfall, which daylights at the beach, makai of the existing shower/barbeque pavilion;
b. Installation of a new drain pipe and inlet to replace the inadequate storm drain no. 6, and drain inlet no. 1, which receive overland flows from paved drive way, and the parking areas of Buildings E and F;

c. Install a new drain inlet at the south-western corner of parking lot for Building A and B. the new inlet shall replace the existing pipe which conveys runoff from the paved parking area into the open channel no. 1., and is often blocked by leaves and extraneous materials, causing localized ponding;

d. Construct a new inlet at the terminus of Channel no. 1, to improve conveyance of channelized flow into the existing drain line no. 7, terminates along the face of the retaining wall fronting Building A;

e. Construct an intercepting channel with gratings, to be installed along the width of the lower driveway, at location(s) to be determined, in order to reduce potential hazards of slippery driveway. A new pipe shall be installed to connect the end of the intercepting channel to the new inlet no. 1;

f. Inspect and clean all existing on-site storm manholes, to ensure they are free of blockages and debris;

g. Retrofit and install filters in all on-site drain inlets, to capture sediments, debris and other pollutants before they enter the system and ultimately discharge into the bay.

APPENDICES

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APPENDIX A

Potable Water Demand
Wastewater Generation Rates
Electrical Load Calculations

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Potabl Water Demands:

According to State of Hawaii, Water System Standards, Table 100-18		
for Multi-Family Low Rise designation → Average daily demand =		560 gallons/unit
No. of Units	80	
Total daily Demand =	44800	Gallons/day
for Resort designation → Average daily demand =		350 gallons/day
Total Daily Demand =	28000	Gallons/day
Use Higher no. → Average daily demand =		44800 gallons/day
Laundry water requirement =	300	gallons/day
No. of Laundry Machines	2	
Total Daily Demand =	600	gallons/day
From Table 100-19, for PUD town house and low rise designation, A-2		
Fire Flow Requirements =	2000	gallons for 2 hours
Total Daily Water Demand (Excluding Fire Flow Requirements)=		45400 Gallons/day
Total Daily Water Demand (Including Fire Flow Requirements)=		47100 Gallons/day

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Wastewater Flow:

According to the County of Maui Wastewater Flow Standards, see table attached

for Apartment/Condo → Average Daily Contribution =		255	gallons/unit/day
No. of Units	80		
Daily wastewater flow rate =		20400	gallons/day
Laundry wastewater flow rate =		600	gallons/day
Total Daily Wastewater Flow =		21000	gallons/day
Flow Rate @ Building A:			
No. of Units	10		
Daily Wastewater Flow rate =		2550	gallons/day
Flow Rate @ Building B:			
No. of Units	16		
Daily Wastewater Flow rate =		4080	gallons/day
Flow Rate @ Building C:			
No. of Units	11		
Daily Wastewater Flow rate =		2805	gallons/day
Flow Rate @ Building D:			
No. of Units	14		
Daily Wastewater Flow rate =		3570	gallons/day
Flow Rate @ Building E:			
No. of Units	16		
Daily Wastewater Flow rate =		4080	gallons/day
Flow Rate @ Building F:			
No. of Units	12		
Daily Wastewater Flow rate =		3060	gallons/day
Flow Rate @ Building G:			
No. of Units	1		
Daily Wastewater Flow rate =		255	gallons/day
Flow Rate @ Laundry:			
No. of washing Machines	2		
Daily Wastewater Flow rate =		600	gallons/day

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Electrical Load calculations:

Assume average unit floor area of 1200 SF to include:

Dishwasher	1.5	kVA
Water Heater	4	kVA
Washing Machine	1.2	kVA
Dryer	4.5	kVA
Range	14.4	kVA
A/C 230 Volt 17A	3.91	kVA

Total Connected Load per unit:

General Lighting Load - use 3 VA per sq. ft. for general use lighting and receptacle

Buildings A and F:				
	2 bedrooms - Floor Area	1414	SF	
General Lighting:	1414 sq. ft. X 3 VA =		4242	VA
Buildings B, C, D, E:				
	1 bed-room -Floor Area	784	SF	
	2 bed-rooms - Floor Area	1442	SF	
General Lighting:	1 bed-room: 784 sq. ft. X 3 VA =		2352	VA
General Lighting:	2 be-rooms: 1442 sq. ft. X 3 VA =		4326	VA
Building G:				
	4 bed-room - Floor Area	1144	SF	
General Lighting:	1144 sq. ft. X 3 VA =		3432	VA
Laundry and Offices:				
	3 Offices and 1 Laundry Room – Floor Area	780	SF	
General Lighting:	780 sq. ft. X 3 VA =		2340	VA
3 offices and laundry room- use 2 Circuits @1500VA per circuit =			12000	VA
2 Washing Machines Circuits @ 2500 VA =			5000	VA
2 Dryer Circuits @ 4500 VA =			9000	VA
Total Connected Load at Laundry =			14000	VA
	Total Connected load at Laundry and 3 offices =		28340	VA

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Small Appliance Circuit:

1 bed-room - use 4 circuits @ 1500 VA per circuit =	6000	VA
2 bed-rooms - use 6 circuits @ 1500 VA per circuit =	9000	VA

Laundry Circuit =	1500	VA
Dishwasher =	1500	VA
Water Heater =	4000	VA
Dryer =	4500	VA
Range =	14,400	VA
A/C =	3910	VA
Subtotal	29,810	VA

Total Connected Load per Unit:

Buildings A and F: (only 2 bed-room units)	34,052	VA
Buildings B,C,D,E (1 bed-room units)	32,162	VA
Buildings B,C,D,E (2 bed-room units)	34,136	VA
Building G	33,242	
Laundry and 3 offices	28,340	

Total Calculated Load per Unit = Total Connected Load X Load Factor

Use a demand factor of 0.41

Buildings A and F: (only 2 bed-room units)	13961	VA
Buildings B,C,D,E (1 bed-room units)	13186	VA
Buildings B,C,D,E (2 bed-room units)	13996	VA
Building G (4 bed-room unit)	13629	
Laundry (3 offices and laundry room)	11619	

Total calculated Loads per Building

Building A	10, 2-bed-room units	139613	VA
Building B	11, 2-bed-room and 5, 1-bed-room units	219885	VA
Building C	8, 2-bed-room and 3, 1-bed-room units	151525	VA
Building D	11 2-bed-room and 3, 1-bed-room units	193513	VA
Building E	11 2-bed-room and 5, 1-bed-room units	219885	VA
Building F	12, 2-bed-room units	167536	VA
Building G	1, 4- bed-room unit	13629	VA
Laundry	3 offices and laundry room	11619	VA
	Subtotal	1117207	VA

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Ground lighting:			
Use 20 circuits for light poles for grounds lighting @ 3000 VA per circuit =		60000	VA
Use 0.3 VA per square ft. for general lighting of the central open space			
General lighting in central open space and between buildings=		8803	VA
Use a demand factor of 0.41			
Total Load for Grounds lighting =		28209	VA
Total Load for Sewage Pumps:			
Electric Motor =	32.4	kVA	
Use Demand factor of 0.41			
Total Calculated Load=		13284	VA
Total Calculated Electrical Load for the Development =		1158700	VA
	or =	1159	kVA

820 S. Beretania Street • Suite 201 • Honolulu, HI • Phone: (808) 538-7180 • Fax: (808) 528-4352 • Email: msiah@mmsengineering.com

Table 100-18 - DOMESTIC CONSUMPTION GUIDELINES				
AVERAGE DAILY DEMAND*				
ZONING DESIGNATION	HAWAII	KAUAI	MAUI	OAHU
RESIDENTIAL:				
Single Family or Duplex	400 gals/unit	500 gals/unit	600 gals/unit or 3000 gals/acre	500 gals/unit or 2500 gals/acre
Multi-Family Low Rise	400 gals/unit	350 gals/unit	560 gals/unit or 5000 gals/acre	400 gals/unit or 4000 gals/acre
Multi-Family High Rise	400 gals/unit	350 gals/unit	560 gals/unit	300 gals/unit
COMMERCIAL:				
Commercial Only	3000 gals/acre	3000 gals/acre	6000 gals acre	3000 gals/acre
Commercial/Industrial Mix	--	5000 gals/acre	140 gals/1000 sq. ft.	100 gals/1000 sq. ft.
Commercial/Residential Mix	--	3000 gals/acre	140 gals/1000 sq. ft.	120 gals/1000 sq. ft.
RESORT (To include hotel for Maui only)	400 gals/unit (1)	350 gals/unit	350 gals/unit or 17000 gals/acre	350 gals/unit or 4000 gals/acre
LIGHT INDUSTRY:	4000 gals/acre	4000 gals/acre	6000 gals/acre	4000 gals/acre
SCHOOLS, PARKS:	4000 gals/acre or 60 gals/student	4000 gals/acre or 60 gals/student	1700 gals/acre or 60 gals/student	4000 gals/acre or 60 gals/student
AGRICULTURE:		2,500 gals/acre	5000 gals/acre	4000 gals/acre

* - Where two or more figures are listed for the same zoning, the daily demand resulting in higher consumption use shall govern the design unless specified otherwise.

(1) - Subject to special review and control by the Manager.

Table 100-19 - FIRE FLOW REQUIREME				
LAND USE	FLOW (GPM)/DURATIO			
	HAWAII	KAUA		
Agriculture	500/0.5/600 (1)	250/1/5		
Rural				
Single Family				
Duplex	00			
PUD Townhouse and Low Rise Apartments				1500/1/250
Schools, Neighborhood Businesses Small Shopping Centers Hote s (except Maui), and High Rise Apartments	000		000	
Light Industry, Downtown Business, Large Shopping Center, and Hospitals	2,000/2/300	3000/3/350	2000 2 250	4000/3/250
Heavy Industry, Hotels	2,000/2/300	3000/3/350	2,500 2 250	(3)

(1) - Applies to one acre lot size or less
(2) - 10,000 sq. ft. or larger lot size = 500/2/600; Less than 10,000 sq. ft. lot size = 1000/1/600
(3) - Subject to special review and control by Manager
(4) - R-2 = 500/1/500 R-4 = 750/2/500 R-6 = 1000/2/500 R-10 = 1250/2/350
R-20 = 1500/2/350 RR-10 = 1500/2/350 RR-20 = 2000/2/350
(5) - A-1 = 1500/2/250 A-2 = 2000/2/250

Note:

1. On dead end streets, the last F.H. shall be located at one half the spacing distance for F.H.s from the last house/unit (frontage property line or to the driveway/access for the property).
2. Spacing of fire hydrant shall be measured along the roadway.

County of Maui
Wastewater Reclamation Division

2200 Main Street Suite 610 • Wailuku, HI 96793 • (808) 270-7417 • 270-7425 fax

Wastewater Flow Standards

The following wastewater flow contributions are to be utilized for projecting wastewater flows for the following types of uses, unless other supporting data is provided to show differently.

Type of use	Unit	Contribution (Gal/Unit/Day)
Apartment/Condo	Unit	255
Bar	Seat	15
Church, large	Seat	6
Church, small	Seat	4
Cottage or Ohana (600 S.F. max)	Unit	180
Day-care Center	Child	10
Factory	Employee	30
Golf Clubhouse	Golf Rounds	25
Hotel, resort with laundry	Room	350
Hotel, average with laundry	Room	300
Hotel, average without laundry	Room	250
Hospital	Bed	200
Industrial Shop	Employee	25
Laundry (coin operated)	Machine	300
Office	Employee	20
Residence, subdivision	Home	350
Restaurant, average	Seat	80
Restaurant, fast food	Seat	100
Rest Home	Patient	100
Retail Store	Employee	15
School, elementary	Student	15
School, high	Student	25
Storage, w/ offices	Employee	15
Storage w/ offices and showers	Employee	30
Store Customer bathroom usage	Use	5
Theater	Seat	5

The following standards will be used as necessary to compute the number of units required to make wastewater calculations:

Residential Occupancy	4 persons per unit
Apartment/Condo Occupancy	2.5 persons per unit
Hotel Occupancy	2.25 persons per unit
Hotel Employees	1 per hotel room
Office Employees	1 per 200 square feet of floor area
Retail Warehouse Employees	1 per 350 square feet of floor area
Storage/ Industrial Employees	1 per 500 square feet of floor area

Average Wastewater Flow: The average wastewater flow is the sum of the applicable wastewater flows listed above.

Maximum Wastewater Flow: The maximum wastewater flow is obtained by multiplying the average flow by a flow factor. The flow factor shall be obtained utilizing the Babbit formula or other rationale method.

Dry Weather Infiltration/Inflow: The following rates shall be used in the design of wastewater transmission lines:

a. 35 gpcd* - Wastewater lines laid below the normal ground water table.

b. 5 gpcd - Wastewater lines laid above the normal ground water table.

* gpcd = Gallons per Capita Day

Wet Weather Infiltration/Inflow: The following rates shall be used in the design of wastewater transmission lines:

a 2,750 gad* - Wastewater lines laid below the normal ground water table.

b. 1,250 gad - Wastewater lines laid above the normal ground water table.

* gad = Gallons per Acre per Day

Design Average Flow: The design average flow is the sum of the average wastewater flow and the applicable dry weather infiltration/inflow rate.

Design Maximum Flow: The design maximum flow is the sum of the maximum flow and the applicable dry weather infiltration/inflow rate.

Design Peak Flow: The design peak flow of wastewater is the sum of design maximum flow and the wet weather infiltration/inflow

APPENDIX B

System Head Curve
Pump Performance Curve

(excluded from report)

Jim Buika
Planner

Marc M. Siah & Associates, Inc.

Consulting Civil • Structural • Environmental & Ocean Engineers
820 South Beretania Street, Suite 201, Honolulu, Hawaii 96813

CHRIS HART & PARTNERS INC

Landscape Architecture
Planning & Regional Planning

July 17, 2014

Mr. Rusty R. Rea
101 Punohu Lane #7
Lahaina, Hawaii 96761

Dear Mr. Rea:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 8, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are opposed to the proposed change in zoning, however we are not clear on the reasons why. This letter is intended to explain why Kahana Sunset is pursuing this action.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. Unfortunately, only representatives of the Door of Faith Church attended the meeting.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium

EXHIBIT 45

project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, the proposed site improvements also include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gadicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

Rusty R. Rea

1(808)250 1962 rustyrea75@yahoo.com 101 Punohu Ln #7 Lahaina,HI 96761

July 8, 2014

William Spence
Planning Commission
2200 Main St Suite 315
Wailuku, HI 96793

Aloha Mr. Spence,

My name is Rusty R. Rea and I am the homeowner at Napili Villas TMK/PARCEL ID 4-3-003-110-0019 101 Punohu Ln #7 Lahaina,HI 96761.

I have received a letter from the county pertaining to the fact that Kahana Sunset condominium is requesting to change their zoning from R-1 residential to Hotel. My wish is to request this action be ***DENIED.***

Sincerely yours,

Rusty R. Rea

CHRIS HART
& PARTNERS, INC
Landscape Architecture
City & Regional Planning

July 17, 2014

Mr. John D. Kaahui
Ms. Elizabeth A. Kaahui
115 Punohu Lane Apt. 3
Lahaina, Hawaii 96761

Dear Mr. & Ms. Kaahui:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 8, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are concerned that the change in zoning would result in encroachment into your view corridor, increased traffic, and potential impediment of enjoyment of the area by Maui residents. This letter is intended to explain why this will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. Unfortunately, only representatives of the Door of Faith Church attended the meeting.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, the proposed site improvements also include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gadicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

115 Punohu Lane, Apt 3
Lahaina, Hawaii 96761

RECEIVED
2014 JUL 10 P 2:11
COUNTY OF MAUI
DEPT. OF PLANNING
ADMINISTRATION

July 8, 2014
County of Maui
Department of Planning
2200 Main Street, Suite 315
Wailuku, Hawaii 96793

Gentlemen/Ladies

Re: (2) 4-3-003-015/Kahana Sunset

We are writing to object to the request for change of zoning for the above referenced property from Single Family/R-3 to Hotel.

We submit the following reasons:

1) It will encroach on our view corridor, to which we are entitled.

   The existing tress are already encroaching on the view corridor.

2) Increased traffic. If it is zoned a hotel, the lower road will be

   significantly more congested.

3) Changing the zoning to Hotel has the potential to impede enjoyment

   of this area on Maui for all residents.

These reasons are very important to the beauty and the quality of life for the residents in that area.

Sincerely,

John D. Kaahui
Owner: Napili Villas, Unit 5-3

Elizabeth A. Kaahui
Owner: Napili Villas, Unit 5-3

CHRIS HART
& PARTNERS, Inc.
Landscape Architecture
City & Regional Planning

July 17, 2014

Ms. Helen F. Sayler
912 Kamehameha V Highway
Kaunakakai, Hawaii 96748

Dear Ms. Sayler:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 1, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are concerned that the change in zoning would result in a "monster of a hotel" being built on the Kahana Sunset property. This letter is intended to explain why such a development will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. Unfortunately, only representatives of the Door of Faith Church attended the meeting.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, I would like to thank you for your support of the proposed site improvements, which include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

I would also like to apologize for misidentifying the Napili Villas in the location map we prepared.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gaddicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

CHRIS HART & PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 17, 2014

Mr. Paul Giragosian
26129 Bella Santa Drive
Valencia, California 91355

Dear Mr. Giragosian:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 2, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are concerned about the potential for view impacts to your unit. This letter is intended to explain why such a development will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. We understand your concern, since this meeting this happened prior to your purchase of your property.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, the proposed site improvements also include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gaddicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

Regarding:
Kahana Sunset Request for Zoning Change
4909 Lower Honopiilani Road
Lahaina, HI 96761
TMK (2)4-3-003015
Request for Zoning Change

July 2, 2014

Dear Sirs,

As a property owner in Napili Villas, I am very concerned with the request the applicants of Kahana Sunset are making for a zoning change. What originally started out as a request some months ago by them to "Demolish and re-construct the seawall, storm drainage, upgrades/improvements" appears to now have blossomed into a request for zoning change from R-3 Residential to HM-Hotel.

The concerns on our end are the following:

- The change in zoning will eventually result in demolition of the current facility, and the building of a high-rise.
- The loss of our current ocean views
- The loss of property values resulting from loss of views and construction work in the area
- Most importantly, the loss of the low-density aspect of the area. Napili is a nice community, not too heavily travelled by tourists, but this zoning change will probably change that. As time passes, there are fewer communities on the west side where long-term residents can live in a relatively low density environment in peace.

One would not think that the applicant's stated improvements require a zoning change. It is quite clear that the applicant has other plans which, though may be to his benefit, <u>will adversely affect all of the property owners around said facility</u>, especially when a developer comes in builds a multi-level Hotel, forever destroying the views and enjoyment of surrounding property owners.

As a recent purchaser on Maui, I carefully looked at all the neighboring properties and zonings during the purchasing process and made my decision based on zonings in effect this past February. After looking for nearly 10 years, I finally purchased my unit. Now, with this application for zoning change, it is quite clear that things will probably change for the worse. I respect an owner's right to do as he sees fit with his property, that is the American way, but please also consider the implications of forever changing the area by granting this zoning change. Further, the present owners of Kahana Sunset bought in to that project with full understanding of the current zoning, yet now seek to change things to the potential detriment of surrounding properties. It might not happen today or next year, but the motivation to request a zoning change definitely was carefully considered for some future purpose of the property. Invariably, these things never turn out well for anyone other than the individual seeking the change.

Please, consider the plight of the current residents of the area and consider denying the zoning change to the Kahana Sunset applicant(s). Ensure that the surrounding property owners are able to enjoy their properties as they originally intended to when they bought and looked at what was around them when they did. Nothing stays the same forever, but please, in addition to considering the zoning request of the applicant(s), please also consider the concerns of the surrounding residents. <u>Please help us preserve the wonderful area we live in by denying the request for zoning change</u>. Permit all the residents, even those of Kahana Sunset, to enjoy their properties with the current zonings for which we all made our decisions to buy.

Respectfully Submitted
Paul Giragosian
Owner of Unit in Napili Villas
121 Punohu Lane

CHRIS HART & PARTNERS Inc.
Land Use Architecture
Civil & Regional Planning

July 17, 2014

Mr. Nobuyuki Yoshida
Ms. Masako Yamanishi
115 Punohu Lane Apt. 1
Lahaina, Hawaii 96761

Dear Mr. Yoshida & Ms. Yamanishi:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 1, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are concerned about the potential for impacts to the character of the community. This letter is intended to explain why the type of development you are concerned about will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. Unfortunately, only representatives of the Door of Faith Church attended the meeting.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, the proposed site improvements also include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely yours,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gaddicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

Dear Planning Commisioner: July 1st 2014

We received a letter "Notice of Public Hearing" a week ago. It seemed Mr Keith G Meyer and Ms Jaqueline Scheibel have tried to change the zoning from residential to Hotel. This area is tatally different from Ka'anapali area where was planed 100% for resort, a huge space, golf corses, big hotels, etc. from beginning. If they have the same problem we have, they might feel bad like us.

Planning Commissioner, once you give them a permission to change the zoning, the developer come in and built a hotel which will be higher and make concrete wall instead of green tree

Please do not change the zoning from R-1 residentia to Hotel. We must deny their request. MAHALO

Sincerely,

Nobuyuki Yoshida

Masako Yamanishi

CHRIS HART & PARTNERS, INC.
Landscape Architecture
Land & Regional Planning

July 17, 2014

Mr. Ted Miller
Ms. Midge Miller
121 Punohu Lane #2
Lahaina, Hawaii 96761

Dear Mr. Miller & Ms. Miller:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

Thank you for your letter dated July 1, 2014 providing comments in response to the Notice of Public Hearing for the subject project. We understand that you are concerned that the change in zoning would result in a "monster of a hotel" being built on the Kahana Sunset property. This letter is intended to explain why such a development will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

Since the property is within the Special Management Area (SMA), any future development proposal on the property must be reviewed by the County to ensure compliance with conditions of zoning. Public notice must be given, a public hearing must be held, and the proposed development must be reviewed and approved by the Maui Planning Commission.

In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

On July 16, 2013, all property owners within 500 feet were invited to a community meeting at Kahana Sunset to inform everyone of the actions related to these permits and their purpose. Unfortunately, only representatives of the Door of Faith Church attended the meeting.

These land use designation changes are being proposed because Kahana Sunset was constructed in 1971 by way of a variance granted in 1968 as an apartment-condominium project on residential zoned property. In 1971, the County of Maui did not have any restrictions on "transient vacation rental" (TVR) use. Kahana Sunset has operated as a TVR apartment since its inception and is now "grandfathered" to do so. Over time Maui County code regarding TVR use has evolved to restrict TVR use to hotel zoned properties only. To date, the 1968 variance continues to govern uses on the property; however, the County Department of Planning recognizes that the proper action is to bring the established use on the property into consistency with zoning.

Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, I would like to thank you for your support of the proposed site improvements, which include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

I would also like to apologize for misidentifying the Napili Villas in the location map we prepared.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment
c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gadicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

COUNTY of MAUI
DEPARTMENT of PLANNING
2200 MAIN STREET, SUITE 315
WAILUKU, HAWAII 96793

7/1/2014

RE: (2) 4-3-003-015 (Commonly known as Kahana Sunset)

Aloha,

The purpose of this written response is to, specifically, protest and hereby request that the Maui County Department of Planning DENY the change of zoning of Kahana Sunset to "HOTEL" status and zoning.

We, the undersigned, also find it objectionable that you, the petitioner, have labeled our development 'Kahana Villas' when in actuality it is commonly known as "Napili Villas." We're reasonably certain that the County Department of Planning will find this lack of local knowledge amusing enough to require you to re-file and re-schedule with the proper address showing on the maps. But regardless...

We have no particular objection to any of the initial proposals (Demolish and reconstruct existing sea wall, storm drains, upgrades/improvements, relocation of site amenities, and new landscape plantings.) except the proposal (slipped into the last page) which mentions actually changing the zoning of the property to HOTEL.

We DO OBJECT to changing the status of the development from residential to the classification of HOTEL and the reason is simply this. Right now, this complex known as Kahana Sunset is, like so many others up and down the west side of Maui, is a group of individual owners which, through their Homeowners Association and an associated management group, rent out their individual units very much like a hotel might. We have no objection to "business as usual." (This arrangement is common up and down the coast of West Maui) HOWEVER, if this property is allowed to be zoned as a hotel, no matter what the present

ownership may say; there is an excellent chance that, somewhere down the road, some developer will buy the whole property, tear it all down, and build a private monster of a hotel in our front yard.

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Once it has the zoning; nothing in our system can stop that from happening - NOTHING. And all the promises from the past ownership will mean absolutely nothing.

Please DENY the petition to change the zoning of Kahana Sunset to HOTEL.

Sincerely,

Steven Jenison Owner	808-669-8428	7/1/14 Date	Unit 5 - 2 Napili Villas
Helen F Sayler Owner	808-268-3921		Unit 8 - 2
Kim S. Jacoby Owner	808-298-5470	7/1/14	Unit 6 - 7
Ted + Midge Miller owners	669-2392	7/1/14	and 6-2

F.Y.I. This is a just a sampling of the ownership of Napili Villas and, if necessary, we can provide a much longer list of petitioners in favor of denying the zoning change request.

CHRIS HART

July 17, 2014

Mr. Steven Jenison
115 Punohu Lane #2
Lahaina, Hawaii 96761

Dear Mr. Jenison:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

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In August 2012, Kahana Sunset applied for the Special Management Area Use Permit and Shoreline Setback Variance for proposed shoreline and site improvements. Kahana Sunset concurrently applied for a Community Plan Amendment (Single Family to Hotel) and Change in Zoning (R-3 Residential to H-M Hotel).

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Based on the established use of the property, hotel is the most appropriate zone equivalent. It should be noted, Kahana Sunset has been paying Real Property Tax at the hotel rate for many years. It should also be reiterated that no expansion or intensification of use is associated with this application.

Finally, I would like to thank you for your support of the proposed site improvements, which include benefits to the surrounding community. A public shoreline access path will be constructed to allow neighbors to access the beach where none currently exists. A deteriorating drain line that receives storm water runoff from upstream properties, including your Napili Villas property, will also be replaced in order to continue to efficiently and properly dispose of storm waters. As documented by the Final Environmental Assessment, Finding of No Significant Impact, there will be no significant change to the community with the proposed action.

I would also like to apologize for misidentifying the Napili Villas in the location map we prepared.

We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

Sincerely,

Jordan E. Hart, President
Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gadicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

COUNTY of MAUI 7/1/2014
DEPARTMENT of PLANNING
2200 MAIN STREET, SUITE 315
WAILUKU, HAWAII 96793

RE: (2) 4-3-003-015 (Commonly known as Kahana Sunset)

Aloha,

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We DO OBJECT to changing the status of the development from residential to the classification of HOTEL and the reason is simply this. Right now, this complex known as Kahana Sunset is, like so many others up and down the west side of Maui, is a group of individual owners which, through their Homeowners Association and an associated management group, rent out their individual units very much like a hotel might. We have no objection to "business as usual." (This arrangement is common up and down the coast of West Maui) HOWEVER, if this property is allowed to be zoned as a hotel, no matter what the present

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CHRIS HART

July 17, 2014

Ms. Kim S. Jacoby
P.O. Box 13190
Lahaina, Hawaii 96761

Dear Ms. Jacoby:

Re: Proposed Kahana Sunset Shoreline and Site Improvements at TMK: (2) 4-3-003:015 Lahaina, Maui, Hawaii. (SM1 2012-0003), (SSV 2012-0002), (CPA 2012-0003), (CIZ 2012-0007)

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Land Planner

JEH:rrc
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c: Ms. Jacqueline Scheibel
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DEPARTMENT of PLANNING
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CHRIS HART & PARTNERS, INC.
Landscape Architecture
City & Regional Planning

July 17, 2014

Mr. Kent Simon
29 Hale Malia Place
Lahaina, Hawaii 96761

Dear Mr. Simon:

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Thank you for your letter dated June 26, 2014 providing comments in response to the Notice of Public Hearing for the subject project. In addition to the communications that you note in your letter, Raymond Cabebe of our office also responded on June 12, 2013 (see attachment) to your June 3, 2013 email. In that email, he explained the reasoning for the requested H-M Hotel zoning and that the three-story height limit would be imposed. We understand that you are concerned that the change in zoning would result in hotel with "twelve (12) stories" being built on the Kahana Sunset property. As you acknowledge in your letter, we have consistently represented that heights on the Kahana Sunset property will be restricted to existing conditions. This letter is intended to explain in more detail why a larger development will not occur.

During review of the Environmental Assessment, the Maui Planning Department and the Planning Commission both recommended (and Kahana Sunset accepts) that a height limit of three-stories will be maintained for the property as a condition of zoning. The three-story height limit for this property will be documented by adoption of County ordinance, when it goes before the Maui County Council for approval. If approved, all conditions related to the zoning will be recorded against the property with the State Bureau of Conveyances system.

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We hope that this letter provides adequate information to address your concerns. If you have any further questions, please contact Raymond Cabebe of our office, or me.

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Land Planner

JEH:rrc
attachment

c: Ms. Jacqueline Scheibel
Mr. Keith Meyer
Mr. Ken Gadicke
Mr. Robert Scheibel
Mr. Jim Buika, Planning Department

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

26 June, 2014

Ref: Mailing to Owners/Lessees TMK: 4-3-003:15 Kahana Sunset
dated 20 June, 2014

Sirs,
In reference to the subject zoning change from single family to hotel, the residents of neighboring Hale Malia Association , and myself as an individual owner, and particularly by virtue that said zoning change is obscured by accompanying developments of "demolish , reconstruct, improve, relocate" onsite amenities (all of which we have no objection), we wish to remind the Planning Commission and Planning Department that, as outlined in the 24 April, 2014 article in the Maui News, that Jordan Hart of Chris Hart & Partners planners stated that the "Maui Planning Commission has recommended that heights be restricted to existing conditions, and that applicant accepts this recommendation"; this condition also agreed to in a telephone discussion 3 April, 2014 between John Schofield, Hale Malia Association president, and Raymond Cabebe, planner, at Chris Hart and Partners;
this condition being important to Hale Malia Association because blanket Hotel Zoning, being the end result of this Community Plan Amendment, allows twelve (12) stories, a result we find unacceptable, despite the fact that applicant allows for no such plan "at this time", and Hale Malia Association respectfully requests written inclulsion of said recommendation and stipulation in your final determination.

Sincerely,

Kent Simon
29 Hale Malia Place
Lahaina, Hawaii 96761 TMK: 4-3-003:94

Raymond Cabebe

From: Raymond Cabebe
Sent: Wednesday, June 12, 2013 8:14 AM
To: 'Kent Simon'
Subject: RE: Kahana Sunset

Mr. Simon,

Thank you for submitting your question regarding the Change in Zoning for the Kahana Sunset Resort property.

In regards to your concern, Kahana Sunset did explore all zoning options, including A-2 Apartment zoning. When Kahana Sunset was constructed in 1971, vacation or short-term rentals were allowed in the Apartment District, unlike the current County code which only allows for long-term rentals. As such, a Hotel designation is Kahana Sunset's only option in order continue the existing vacation rental use that has been in place since 1971. H-M Hotel zoning was selected over H-1 (2-story maximum) because of the existing 3-story structures.

At its review of the Draft Environmental Assessment, the Maui Planning Commission expressed its intention of imposing a 3-story height limit, in line with the existing building configurations, so that should allay your fear of a dramatic increase in density and height. In addition, since the property is within the Special Management Area (SMA), any future re-development would be subject to a public hearing and require approval by the Maui Planning Commission.

We hope this addresses your concern. If you have any additional questions, please feel free to email or call.

Regards,

R. Raymond Cabebe, LEED® AP BD+C
Land Planner
CHRIS HART & PARTNERS, INC.
115 N. Market Street
Wailuku, Maui, Hawaii 96793
voice: 808.242.1955 x556
facsimile: 808.242.1956
direct: 808.270.1556
www.chpmaui.com

From: Kent Simon [mailto:sueandkent@msn.com]
Sent: Wednesday, June 05, 2013 8:19 AM
To: Raymond Cabebe

Subject: Kahana Sunset

Dear Sirs- 3 June, 2013

I question the reasoning of change of zoning to H-M Hotel, which allows for 6 stories, as opposed to Apartment-2 (A-2) which allows for 4 stories, and would presumably cover the existing buildings and their use.
Although your letter of 30 May, 2013 explains "no plans to expand or enlarge", my fear is that with H-M Hotel zoning, the property with its 42 year old structures could be developed into a hotel resort of 6 stories and much larger use density.
The neighborhood (including me) is R-3 Residential, and a H-M Hotel right in the middle would be unacceptable "spot" zoning.
I think Kahana Sunset could justify zoning change to existing use, but question going beyond that to allow H-M Hotel zoning which would allow drastically increased density and height, and endanger the existing neighborhood ambiance.

Respectfully,
Kent Simon
29 Hale Malia Place
Lahaina, 96761
TMK: 4-3-3:94

MIKE RESNICK
P.O. BOX 8, LAHAINA, HAWAII 96767-0008
(808) 669-8554 • FAX (808) 669-8766

July 14, 2014

County of Maui
Department of Planning
2200 Main Street, Suite 315
Wailuku, HI. 96793

Attn: William R. Spence, Director

Re: Application for Special Management Area Use Permit and
Change in Zoning
TMK: 4-3-003:015; 4909 Lower Honoapiilani Rd., Lahaina

Dear Mr. Spence:

As a longtime resident of west Maui (47 years) and, in particular the Kahana/Napili district. I emphatically call on the Maui Planning Commission to deny the applicant's request to change the present zoning of RE-3 to H-M.

I believe such a rezoning would set a very dangerous precedent, as what would prevent other multiple unit projects from requesting the same H-M zoning in the future; and how could the County justify refusing another project the same courtesy. Why is the applicant not requesting A-2 zoning? Would not such a rezoning to A-2 serve the same purpose or are the applicants trying to blindside the Commission so that they could add or substitute 6 story structures to what is already there? To the best of my knowledge, there are no projects on Maui that have been unilaterally allowed to rezone to such an allowable high density in an area planned and developed for low-rise/ single-family use. As a matter-of-fact, that property (originally known as the Yabui property) was going to be designated as R-1 in the original Community Plan (1967) and was changed to R-3 at the request of the then property owners prior to the publishing of the original Community Plan for West Maui.

As for the applicant's request for an SMA permit to do maintenance and repair to the waterfront and other amenities, I wholeheartedly support their request.

Sincerely

Myron ("mike") Resnick