

# TABLE OF CONTENTS

## **SECTION I – Project Description**

A.	Applicant Information	1
B.	Approving Agency	1
C.	Proposed Action	1
D.	Anticipated Determination	3
E.	Project Site Location	3
F.	Necessary Permits and Environmental Requirements	4
G.	Agencies Consulted in Preparing Environmental Assessment	4
H.	Public Policies	6
I.	Project Characteristics	7

## **SECTION II – Summary Description of the Affected Environment & Identification of Potential Impacts**

A.	Physical Site Description	9
B.	Existing Land Use	9
C.	Topography	9
D.	Flora and Fauna	10
E.	Soils	10
F.	Climate	10
G.	Air Quality	10
H.	Noise Impact	10
I.	Archaeological and Historical Sites	11
J.	Cultural Impacts	11
K.	Visual Impacts	12
L.	Natural Hazards	12
M.	Land Use Classifications & Compatibility w/ Surrounding Environment	13
N.	Public Services and Facilities	13
	1. Access	13
	2. Water	13
	3. Wastewater	14
	4. Solid Waste	14
	5. Fire Protection	14
	6. Emergency Medical Service	15
	7. Police Protection	15
	8. Public Schools	15
	9. Utilities	15
O.	Aquatic Resources	15

## **SECTION III – Summary of Major Impacts & Alternatives Considered** 17

## **SECTION IV – Expected Determination & Significance Criteria** 19

## **SECTION V – Permits, Variances & Approvals** 22

## **EXHIBITS**

<b>Exhibit 1</b>	<b>Location Map – Island of Kauai</b>
<b>Exhibit 2</b>	<b>Vicinity Map – Ha`ena</b>
<b>Exhibit 3</b>	<b>Tax Map of Subject Parcel</b>
<b>Exhibit 4</b>	<b>State Conservation District Subzone Map</b>
<b>Exhibit 5</b>	<b>County Zoning Map</b>
<b>Exhibit 6</b>	<b>Plot Plan</b>
<b>Exhibit 7</b>	<b>Flood Zone Map</b>
<b>Exhibit 8</b>	<b>Elevation Certificate</b>
<b>Exhibit 9</b>	<b>Site Plan</b>
<b>Exhibit 10</b>	<b>Pending/Proposed Shoreline Certification Map</b>
<b>Exhibit 11</b>	<b>Upper Level Floor Plans</b>
<b>Exhibit 12</b>	<b>Lower &amp; Mid-Level Floor Plans</b>
<b>Exhibit 13</b>	<b>Front, Rear and Right Side Elevations</b>
<b>Exhibit 14</b>	<b>Left Side Elevation</b>
<b>Exhibit 15</b>	<b>Site Photos</b>
<b>Exhibit 16</b>	<b>Special Management Area Waiver (C.O.K.)</b>
<b>Exhibit 17</b>	<b>Proposed Landscape Plan</b>
<b>Exhibit 18</b>	<b>Proposed Building Envelope</b>

## **APPENDICES**

<b>Appendix 1</b>	<b>Archaeological Assessment of TMK (4) 5-9-05: 027</b>
<b>Appendix 2</b>	<b>Cultural Impact Assessment of TMK (4) 5-9-05: 027</b>
<b>Appendix 3</b>	<b>Shoreline Certification Survey &amp; Application</b>
<b>Appendix 4</b>	<b>Historical Shoreline Erosion Study, TMK (4) 5-9-05: 027</b>
<b>Appendix 5</b>	<b>Assessment of Shoreline Conditions &amp; Mitigation Alternatives</b>
<b>Appendix 6</b>	<b>Documentation of DEA – Early Consultation Comments</b>
<b>Appendix 7</b>	<b>Documentation of Draft EA Agency &amp; Community Input</b>
<b>Appendix 8</b>	<b>County of Kauai, Shoreline Setback &amp; Coastal Protection Ordinance</b>

# SECTION I

## PROJECT DESCRIPTION

### A. OWNER / APPLICANT

Catherine Moragne Bartmess & Russ Bartmess  
356 Meridian  
Crystal Lake, IL 60014

#### **Consultant for Applicant:**

Landmark Consulting Services  
Contact: Ben Welborn  
P.O. Box 915  
Hanalei, HI 96714  
Phone: (808) 828-6332  
Fax: (866) 511-7250  
Email: welborn@aloha.net

### B. APPROVING AGENCY

State of Hawaii  
Board of Land and Natural Resources (BLNR)  
P.O. Box 621  
Honolulu, HI 96813

### C. PROPOSED ACTION

In their original CDUA submittal packet, the Applicants, Catherine Moragne Bartmess & Russ Bartmess had proposed to construct a three (3) bedroom, three (3) bath Single-Family Residence (SFR) of approximately 2,672 square feet, on the subject 15,030 square foot parcel. The structure was to be constructed on piers above existing grade. The lowest horizontal structural member of the residence would have a minimum elevation of thirty (30) feet above Mean Sea Level (MSL) to comply with applicable County and Federal flood standards. The 2,672 square foot structure was to be comprised of approximately 1,894 square feet of interior living space, a 240 square foot exterior covered lanai, and enclosed storage areas together with an enclosed stairwell & entry area which together accounted for an additional 538 square feet. The Applicant also proposes to construct a lava rock wall along the roadway boundary of the property, together with a vehicular gate. Fencing will be erected along the lateral (side) property boundaries *setback no less than 40-feet from the certified shoreline*. Refer to Exhibits 9, 11, 12, 13 & 14 for a Site Plan, Floor Plans, and Exterior Elevation perspectives of the residence originally proposed.

*In response to comments that were received from the DLNR, Office of Conservation and Coastal Lands (OCCL), as an alternative to that which was originally proposed, the Applicant offers the following shoreline setback compromise:*

- a) *The Applicant would be willing to increase the proposed residential shoreline setback distance to 80-feet (which distance is based upon a calculation of an “average lot depth” of 164.1 feet and an application of the “preset” shoreline setback guidelines (per recommendation from the OCCL) as set forth in Table 1 of Section 8-27.3 the recently adopted County of Kauai, Shoreline Setback and*

- Coastal Protection Ordinance – No. 863 (Appendix 8). Due to the physical constraints of the subject parcel, the 80-foot setback would be subject to further agreement from the BLNR on items b, c, d & e as outlined by the Applicant below.***
- b) In order to accommodate the greater 80-foot shoreline setback, and in consideration of the narrow width of the subject parcel, the Conservation District side-yard setbacks would need to be reduced to 10 feet to allow the Applicant a sufficient ‘building envelope’ within which to construct their residence (see attached proposed Building Envelope in Exhibit 18). The Applicant seeks strong OCCL & BLNR support for this recommendation on the merits of increasing the shoreline setback distance. There are no perceived safety or environmental concerns associated with reducing the side-yard setbacks to 10 feet.***
- c) Rather than require a current redesign of the proposed residence (the dimensions of the residence as originally depicted in the CDUA submittal would not fit on the parcel assuming an 80 foot setback), the Applicant requests approval of the CDUP based upon an assumed building envelope as shown on the attached Exhibit 18. The building envelope of approximately 2,696 square feet is based upon the 80-foot shoreline setback, 10-foot side-yard setbacks and a minimum 15-foot setback from the front/roadway boundary.***
- d) The Applicant requests that the BLNR allow for revised house plans to be provided after a CDUP approval is granted based upon the building envelope constraints. The residence shall not exceed a maximum 3,000 sqft. of Development Area as defined in HAR 13-5, Exhibit 4, Single Family Residential Standards. The residence would comply with all Federal and County flood regulations. In consideration of this request, the Applicant further asks the Board for approval of an 18-month start of construction requirement from the date of issuance of the CDUP to allow sufficient time to redesign the home and secure building permits from the County of Kauai.***
- e) In conjunction with the above, the Applicant requests that the Board and OCCL staff support a decision that the sandbag revetment and any further permitting requirements related thereto are to be administered under a separate permitting process in conjunction will all five of the affected properties. This implies that the Board would grant approval of CDUA KA-3460 for the Moragne/Bartmess residence with the sandbag revetment in place until such time that appropriate long-term shoreline permitting decisions are made.***

The architecture of the proposed building will be of a simple plantation style. The residence will be situated on the parcel to take advantage of the beautiful mountain and ocean views that the parcel has to offer. The exterior colors will be in earth tones. The Applicant’s intent in designing the home is to develop a residence which is compatible with the surrounding environment and existing development on nearby parcels. Minimal site grading will occur, primarily for the driveway and within the footprint of the home site itself. The maximum height of the proposed structure, measured to the highest peak of the roof, is approximately ~~28.5~~ 30 feet above existing grade.

Landscaping will be used to soften the visual impact of the proposed structure from adjoining property owners. *Included is a Landscape Plan (Exhibit 17), which depicts limited landscaping utilizing the following native & non-native plant species, which are known to be compatible with the soils and climate of the area:*

- ***Beach Naupaka***
- ***Dwarf Coco Palms***
- ***Hala***
- ***Plumeria***

- *Grass*
- *Various groundcovers & shrubs along fence line*

**D. ANTICIPATED DETERMINATION**

EIS REQUIRED \_\_\_\_\_ NOT REQUIRED   **X**  

**E. PROJECT SITE LOCATION**

The subject parcel is located in Haena, approximately 7.2 miles west of Hanalei town on the northern coastal plain of Kauai. Refer to Exhibits and photo(s) for a graphic representation of the site location and characteristics.

TMK:	(4) 5-9-05: 027
Island:	Kauai
District:	Hanalei
Zoning:	Conservation
State Land Use:	Conservation (Limited Subzone)
County General Plan:	Conservation; Open / Special Management Area (SMA)
Current Land Use:	Vacant Undeveloped Land
Proposed Land Use:	Single-Family Residence
Adjacent Land Use:	Residential Development & Vacant Parcels

**F. NECESSARY PERMITS AND ENVIRONMENTAL REQUIREMENTS**

- 1. State Conservation District Use Permit (CDUP)**  
Department of Land and Natural Resources, Planning Branch
- 2. Environmental Assessment**  
State Office of Environmental Quality Control  
Department of Health
- 3. County of Kauai Building Permit**  
Department of Public Works (with approval from other County agencies)
- 4. Special Management Area (SMA)**  
Determination of Exempt Status for Single-Family Residence  
County of Kauai Planning Department  
\* See SMA Waiver attached hereto as Exhibit 16
- 5. Individual Wastewater System (IWS) Permit**  
State Department of Health, Wastewater Division

**G. AGENCIES CONSULTED IN PREPARING ENVIRONMENTAL ASSESSMENT**

The following agencies and affected parties were consulted and provided with an opportunity to comment upon the proposed project prior to the preparation of the Draft and Final Environmental Assessment:

- DLNR, Land Division
- DLNR, Office of Conservation & Coastal Lands
- DLNR, Chairperson's Office
- DLNR, State Historic Preservation Division
- DLNR, Division of Aquatic Resources
- DLNR, Division of Forestry and Wildlife
- DLNR, Division of State Parks
- ***DLNR, Engineering Division***
- State Department of Health, Environmental Health Division
- State Department of Health, Environmental Planning Office
- Office of Environmental Quality Control
- DBEDT, Coastal Zone Management Program
- Office of Hawaiian Affairs
- County of Kauai, Planning Department
- County of Kauai, Department of Water
- County of Kauai, Department of Public Works
- County of Kauai, Department of Public Works, Building Division
- U.S. Fish & Wildlife Service
- U.S. Department of the Army, Regulatory Branch
- The Sierra Club, Kauai Chapter

- The Hanalei-Haena Community Association
- The Nature Conservancy
- University of Hawaii, Sea Grant Program
- T.S. Dye & Colleagues, Archaeologists
- Landmark Consulting Services
- Karen Sherwood – Neighboring Property Owner
- Tamera Painter – Neighboring Property Owner
- Troy Eckert – Neighboring Property Owner
- Matthew LaCock – Neighboring Property Owner
- Ruth Chang – Neighboring Property Owner
- Dexter Chung – Neighboring Property Owner
- William Kellie – Neighboring Property Owner
- Anthony Degrazia – Neighboring Property Owner
- Ed Ben-Dor – Neighboring Property Owner
- Mark Moran – Neighboring Property Owner
- Ben Dyre Family Limited Partnership – Neighboring Property Owner
- Jonathan & Heather Ive – Neighboring Property Owner
- Harold Downs – Neighboring Property Owner
- Sally Mist – Neighboring Property Owner
- Jess Jackson – Neighboring Property Owner
- Kent & Kathy Browning – Neighboring Property Owner

All pre-assessment comments that were received and responses thereto are included herewith in Appendix 6. ***Comments on the Draft EA and responses thereto are included in Appendix 7.*** Where applicable, agency requirements and recommendations have been addressed and incorporated into the documentation of the Draft ***and Final EA.*** Substantive comments were received from:

- 1) DLNR, Office of Conservation and Coastal Lands
- 2) U.S. Department of the Army, Regulatory Branch
- 3) State, Office of Hawaiian Affairs
- 4) County of Kauai, Department of Water
- 5) Hanalei-Ha`ena Community Association
- 6) ***DLNR, Engineering Division***
- 7) ***State, Department of Health, Environmental Planning Office***

## H. PUBLIC POLICIES

### 1. STATE LAND USE LAW

The project site is situated within a Limited Subzone of the State Conservation District. The proposed action is therefore subject to the land use regulations and permit application review process of Chapter 13-5, Hawaii Administrative Rules, as administered by the Department of Land and Natural Resources.

The Applicant is proposing an identified use within the Limited Subzone. A Board Permit is being requested.

### 2. COUNTY GENERAL PLAN

The Kauai County's General Plan designates the project area as Conservation /Open Space. This represents the County's desire to manage large development within the vicinity and to promote open space, recreational use, and natural landscapes wherever possible.

*The Applicants' revised proposal is to develop a new residence within a building envelope of approximately 2,696 square feet (as depicted in Exhibit 18), which is equivalent to approximately 17.9% of the total titled area of the parcel. The remaining 82.1% (or more) of the parcel will be kept in open space, in a naturally landscaped setting consistent with the intent of the County's General Plan.*

### 3. COUNTY ZONING

Conservation / Open

### 4. SPECIAL MANAGEMENT AREA

The project site is located within the Coastal Zone Special Management Area (SMA); as administered by the SMA Rules and Regulations of the County of Kauai. However, the construction of a Single-Family Residence is typically exempted from obtaining an SMA permit. A letter from the County of Kauai Planning Department confirming exempt status of the proposed action from SMA Permitting requirements is attached hereto in Exhibit 16. The proposed action shall not have a long-term or detrimental impact upon the coastal ecosystems, marine resources, beaches, the shoreline, or flora and fauna of the area. Nor shall it impact scenic or open space resources in a significant manner. The proposed construction of a new residence will not create any additional coastal hazards such as heightened erosion, subsidence, and/or pollution. The proposed residence is not part of a larger development planned for the area.

# **I. PROJECT CHARACTERISTICS**

## **1. GENERAL CHARACTERISTICS**

Refer to Section III – “Proposed Action” for a general description of the proposal.

## **2. TECHNICAL CHARACTERISTICS**

Technically this action will authorize the Applicant to:

- Construct a Single-Family Residence and appurtenant infrastructure on the subject parcel.
- Perform the necessary grading and grubbing work in preparing the parcel for construction, pursuant to the issuance of all additionally required County of Kauai permits.

## **3. ECONOMIC CHARACTERISTICS**

**Significant long-term economic impacts are not anticipated as a result of the proposed action. Should the proposal meet the approval of the Board, there would be a short-term benefit upon the local construction industry, and an increase in real-property tax values. Money paid into the construction industry would most likely generate income in other sectors of the local economy.**

## **4. SOCIAL CHARACTERISTICS**

There are no significant social benefits or negative impacts that are anticipated as a result of the proposed action. The Applicant will apply Best Management Practices (BMP) during the development of the parcel. Landscaping will be used to screen the proposed structure from the adjoining property owners and the adjacent roadway. The proposed use will not displace any exiting residences. The project site is currently vacant. A single new household in the area will not overburden existing public services or facilities.

## **5. ENVIRONMENTAL CHARACTERISTICS**

The proposed action is not anticipated to have any significant long-term negative or beneficial impacts upon the environment. The proposed residence will not displace any existing agricultural or recreational land uses. No prime or unique lands of the State of Hawaii or its residents will be adversely affected by the proposed action. Section II of this Draft EA, reviews in greater detail the potential environmental impacts of the proposed action, and where applicable suggests measures for the mitigation of negative outcomes.

## **6. TIME FRAME OF PROJECT**

The completion of project design and permitting is anticipated for the *third* quarter of 2008. Construction is expected to commence *following a redesign of the proposed residence as necessitated by the increase in the shoreline setback distance to 80-feet and associated reconfiguration of the proposed building envelope. The Applicant is therefore requesting that the BLNR approve an 18-month start of construction requirement from the date of issuance of a CDUP to allow sufficient time to redesign the home and secure building permits from the County of Kauai.* Construction activities are expected to have a duration of approximately 12 months, with the completion of the residence projected toward the end of *2010*.

## **7. FUNDING AND SOURCE**

Development of the residence and appurtenant infrastructure is estimated to cost approximately \$670,000, which is roughly calculated as \$250.00 per square foot multiplied by the proposed 2,672 square feet of development area. The Applicant will privately fund the development of the project.

## SECTION II

### Summary Description of the Affected Environment & Identification of Potential Impacts and Proposed Mitigation

#### A. PHYSICAL SITE DESCRIPTION

The subject parcel is located in Haena, in the district of Hanalei, on the northern coastal plain of the Island of Kauai, Hawaii. The parcel is designated by Kauai Tax Map Key No. (4) 5-9-05: 027. The deeded title area of the parcel is approximately 15,030 square feet. The area mauka (landward) of the proposed shoreline (pending certification) is roughly 9,724 square feet. The location of the parcel is graphically depicted in the Exhibits attached hereto.

Access to the parcel is provided directly off of Kuhio Highway, which shares a common boundary with the property along its southerly border. To the north, the property is bounded by the shoreline. The subject property is bounded on either side by private properties, to the east is TMK(s) (4) 5-9-05: 028 and to the west is TMK(s) (4) 5-9-05: 016. Numerous parcels within close proximity to the subject property have been developed with single-family residences of a comparable size and architectural style to that which is being proposed by the Applicant.

#### B. EXISTING LAND USE

The project parcel is currently vacant and undeveloped.

#### C. TOPOGRAPHY

The topography of the subject parcel rises fairly abruptly along its seaward edge (a.k.a. "the shoreline") to the top of what appears to be an old sand dune formation. The proposed shoreline, which was located on March 6<sup>th</sup> 2007 by Wagner Engineering Services (*still pending certification by the State*), is situated near the top of this dune formation, a conservative distance back from the leading edge of vegetation (Exhibit 10). The top of the dune is approximately 27 feet above Mean Sea Level (MSL). From this high point, moving further inland, the property slopes gradually downward to its lowest elevation of approximately 15' 6" above MSL near the mauka property boundary which is adjacent to Kuhio Highway. The existing grade within the *building envelope* of the proposed residence (which is proposed *80 feet* back from the shoreline) ranges from approximately *15'6" to 23'0"* above MSL, with the higher elevations being closer to the ocean.

#### **D. FLORA AND FAUNA**

There are no rare or endangered native plants and/or animals present on the parcel which would suffer substantial negative impacts as a result of the proposed development. The parcel is characterized by an open lawn with a few coconut trees as depicted in the site photos (Exhibit 15).

#### **E. SOILS**

According to the Soil Survey of the Island of Kauai, State of Hawaii, prepared by the U.S. Soil Conservation Service, Department of Agriculture, the project parcel is located on land characterized by *Mr – Mokuleia fine sandy loam* type soils. *Mr* soils have a moderately rapid permeability in the surface layer and rapid permeability in the subsoil. Runoff is very slow, and the erosion hazard is slight.

#### **F. CLIMATE**

Rainfall is estimated to be between approximately 70 and 100 inches per year. The proposed action should not affect the local or macro climates in any manner.

#### **G. AIR QUALITY**

The air quality in the project area is excellent. The rural character of the site, the prevailing tradewinds, and a close proximity to the ocean all combine to buffer the area against significant airborne pollutants.

During construction, minimal short-term impacts on air quality will result from dust-generated grading activities. The impacts will be temporary and relatively insignificant. Best Management Practices (BMP), including the sprinkling of exposed soils, will be employed to further minimize the impact of airborne dust. The inconvenience of dust associated with the proposed action is therefore anticipated to be negligible.

#### **H. NOISE IMPACT**

The project parcel and adjoining properties are currently impacted by vehicular traffic noise along the frontage of Kuhio Highway. Other predominant sources of noise within the vicinity of the project include that associated with overhead tour helicopters, and the more pleasant sounds generated by the wind and sea. By and large, the project area has a very low and pleasant noise level, as one would expect of such a rural site.

Noise levels are anticipated to temporarily increase with the onset of construction. Increased noise will be associated with the use of heavy machinery during grading, as well as with the use of power tools and hammers during construction of the residence. Once the house is completed, the construction-related noise will cease. Mitigative measures will be implemented to lessen the impact of the short-term noise generated by construction. This shall include the use of muffling devices on all gasoline or diesel-powered equipment. Furthermore, construction activities shall be restricted to the working hours between 7:30 AM and 5:30 PM.

Long-term noise resulting from the proposed action will be similar to that which is generated by other Single-Family Residences within the surrounding area. The proposed activities will not violate any State regulations regarding noise levels.

#### I. ARCHAEOLOGICAL AND HISTORICAL SITES

As required by the State Historic Preservation Division (SHPD), an Archaeological Assessment was conducted by *T.S. Dye & Colleagues, Archaeologists* to determine the presence or absence of archaeological features on the subject property and to assess their significance. Investigative trenching was carried out by the archaeologists revealing a *“natural stratigraphy with no evidence for traditional Hawaiian Use”* (Appendix 1). Two adz fragments recovered from the surface layer in the mauka portion of the excavated trench, were (in the opinion of the archeologist) most likely transported to the site by wave action or gardening activities. The Archaeological Assessment report concluded that *“based upon the negative results of the assessment, construction of a single-family dwelling on the project parcel will have ‘no effect’ on historic sites because none are present”<sup>i</sup>*

Upon review of the assessment report, the SHPD in a letter dated October 25, 2007, determined that no further archaeological work is necessary on the subject parcel. Refer to Appendix 1 for full documentation of the archaeological report & SHPD response. There are no historic or archaeological sites listed on the State or Federal Registers for the subject parcel.

In the event that human burials are inadvertently discovered during construction activities, the owner/Applicant understands that all work must immediately stop within the vicinity of the burials, and the SHPD shall be contacted to determine the jurisdiction and proper mitigation protocol for the burials. The State Office of Hawaiian Affairs (OHA) will also be notified in such event.

**J. CULTURAL IMPACTS**

See attached Cultural Impact Assessment – Appendix 2 prepared by *Scientific Consultant Services, Inc. (SCS)*.

## **K. VISUAL IMPACTS**

The proposed residence will be situated in a partially developed residential neighborhood. Homes in the area are a mix of both old and new. The construction of the new residence will blend in with the existing residential development and the surrounding environment. Earth tone colors will be used on all exterior surfaces. Landscaping will be used to soften the visual impact of the new residence as it is viewed from the adjoining roadway and nearby parcels. The proposed residence will be setback approximately **80 feet** from the certified shoreline; therefore it will not be readily visible from the beach. The residence will not obstruct any views toward significant landmarks or vistas, either from the beach or other public vantage points.

***To protect Newell's Shearwaters and other endangered seabirds and to minimize the impact of light pollution upon this pristine coastal region, all exterior lighting shall consist only of shielded lights, cut-off luminaries, or indirect lighting. Spotlights aimed upward at trees or structures shall not be utilized.***

## **L. NATURAL HAZARDS**

The area of proposed impact is situated within Flood Zone VE 30 as designated on the Federal Flood Insurance Rate Map (FIRM) - - per FIRM Map #1500020030 E Dated Sept. 6<sup>th</sup>, 2005 (Exhibit 7). Zone VE is defined as a coastal flood area with a velocity hazard due to its potential susceptibility to 100-year inundation by tsunami. County regulations regarding structures located within this coastal high-hazard area require a "base flood elevation" for the lowest horizontal structural member of the proposed residence to be 30 ft. above mean sea level. ***The proposed residence will be designed and constructed to be in compliance with both Federal and County of Kauai flood regulations.***

As with all coastal development, the impact of cumulative shoreline erosion can pose a significant long-term threat to structures that are constructed too near to the shoreline. The solution to avoid this threat is quite simple - - site structures far enough inland from the shoreline so that they are buffered from the erosion zone. Therefore, in order to determine an appropriate setback distance for the proposed residence, the Applicant contracted with EKNA Services, Inc., a Honolulu based firm with coastal engineering expertise. Elaine Tamaye, President of EKNA Services conducted a Historical Shoreline Erosion Study for the subject parcel and adjacent shoreline reaches which relied upon aerial photographic data dating back to 1950. Based upon this analysis, EKNA calculated an average annual erosion rate for the subject property of 0.33 feet/year. Following the guidelines of the State of Hawaii, Coastal Hazard Mitigation Guidebook (*Guidebook*)<sup>ii</sup>, EKNA further adjusted the average annual erosion rate to account for error (20%) and for accelerated sea level rise (10%). The resulting adjusted erosion rate for the parcel is 0.44 feet/year. The *Guidebook* recommends a 70-year useful lifespan for new structures. Applying this 70-year lifespan to the proposed residence, the erosion zone for the parcel is determined to be 30.8 feet (70years X 0.44 ft/yr. = 30.8

feet). The *Guidebook* further recommends that a **20-foot** storm event and a **20-foot** “safety/design” buffer be added. ***Based upon the EKNA Study and an application of the Guidebook methodology, the minimum setback for the structure would be 71 feet*** back from the certified shoreline which represents an additional storm event and safety/design buffer of 40.2 feet beyond the active 70-year erosion zone of 30.8 feet. ***However, the recently adopted County of Kauai, Shoreline Setback and Coastal Protection Ordinance (No. 863) requires that additional criteria be applied in determining an appropriate setback distance for new construction. Specifically, the new Kauai ordinance looks to the “average lot depth” and imposes greater setbacks for deeper parcels. Using the formula set forth in ordinance 863, the average depth of the Moragne/Bartmess parcel is approximately 164.1 feet, which has a corresponding setback requirement of 80-feet. A copy of the Kauai ordinance is included for reference in Appendix 8. The Applicant’s revised proposal is consistent with the new Kauai ordinance and the OCCL’s recommendations for an 80-foot setback.*** Refer to Appendix 4 for a more detailed examination of the shoreline analysis.

Notwithstanding shoreline erosion, other erosion concerns for the subject property are negligible due to the high permeability of its sandy soils and the absence of any nearby natural drainage ways. Kauai is the oldest of the major Hawaiian Islands; therefore, there are no active or dormant volcanoes that pose a threat to the parcel.

#### **M. LAND USE CLASSIFICATIONS & COMPATIBILITY WITH SURROUNDING ENVIRONMENT**

The State Land Use Commission designates the subject property as Conservation. The County General Plan classifies the property and surrounding areas as Conservation/Open.

No land use or zoning changes are required as a result of the proposed action. The construction of a single family residence is consistent with, and supportive of both the State’s and the County’s intended land uses and the intent of the Haena Hui Petition.

#### **N. PUBLIC SERVICES AND FACILITIES**

The construction of the proposed Single-Family Residence on the parcel shall not place an unreasonable additional burden upon public agencies or public utility providers servicing the area.

##### **1. ACCESS**

The parcel is provided with vehicular access via Kuhio Highway.

##### **2. WATER**

County water is available to the parcel and is served by an existing water meter (Site Plan, Exhibit 9). No additional source or storage facilities are required for the proposed action.

### **3. WASTEWATER**

Residential and public wastewater within the project vicinity are treated through the use of individual septic systems. There are no municipal treatment plant facilities or public sewer pipelines associated with the project area, nor are any planned for the future. Prior to the construction of the proposed SFR, the Applicant will be required to apply for a building permit from the County of Kauai. A component of the building permit application is a State Department of Health approved Individual Wastewater System (IWS) plan in accordance with the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems".

As per correspondence dated November 8, 2007 from the County of Kauai, Department of Water (included herewith in Appendix 6), *and further correspondence from the Department of Health, Environmental Planning Office dated May 16, 2008 (included in Appendix 7) due to the subject property's proximity to a public, domestic water well, the Applicant understands that they may be required to satisfy the State, Department of Health's requirements for IWS's that are located within 1,000 feet of public, domestic water wells. The Applicants also understand that the project parcel is located in a Critical Wastewater Disposal Area (CWDA) and further that a new cesspool will not be allowed. Depending upon the distance to the well, the depth at which ground water is encountered, and the results of a percolation test, the Applicants understand that they may be required to install an aerobic Individual Wastewater System (IWS) together with a chlorinator and a horizontal soil absorption system. The Applicants also acknowledges the minimum setback distance of 50 feet from the certified shoreline for the IWS.*

### **4. SOLID WASTE**

Residential solid waste is collected at curbside along Kuhio Highway on a weekly basis. Collected waste is compacted and transported to the Kekaha landfill for disposal. A recycling area will be designated on the subject property for the collection of aluminum, glass, cardboard and junk mail, as well as any other recyclable materials that are processed on Kauai. Green waste will be composted on site.

### **5. FIRE PROTECTION**

Fire protection is provided by the County of Kauai. The nearest fire station is in Princeville with an estimated response time of approximately 15 minutes to the subject parcel. Under extreme emergency conditions, both the Kapaa and Lihue fire stations respond to calls within the project area.

## **6. EMERGENCY MEDICAL SERVICE**

Emergency medical service is provided by the Princeville fire station in conjunction with American Medical Response (AMR) a private medic firm, which is contracted with the State Department of Health. Response time is approximately 15 minutes to the subject property.

## **7. POLICE PROTECTION**

Police protection is provided by the Kauai Police Department. The closest substation is located in Princeville, approximately 15 minutes from the project parcel.

## **8. PUBLIC SCHOOLS**

Public schools servicing the Haena area are Hanalei School (Grades K-6), Kapaa Middle School (Grades 7 & 8), and Kapaa High School (Grades 9 – 12).

## **9. UTILITIES**

Electrical power is provided by the Kauai Island Utility Cooperative (KIUC) and telephone service is provided by GTE Hawaiian Telephone. Utilities are supplied via overhead distribution lines along Kuhio Highway. All utility easements are in place.

## **O. AQUATIC RESOURCES**

The subject parcel is contiguous with the shoreline. The proposed residence will be set back 60 feet from the State certified shoreline.

The proposed development of a Single Family Residence on the subject parcel will not result in the discharge (placement) of dredged and/or fill material into waters of the U.S pursuant to Section 404 of the Clean Water Act (CWA). Nor will the project result in the placement or construction of structures within navigable waters of the U.S. as defined under Section 10 of the Rivers and Harbor Act (RHA) of 1899. There are no perennial, intermittent or ephemeral streams or wetlands on, in, or adjacent to the subject property. Therefore, it is assumed that the proposed actions are exempt from Department of the Army permitting requirements.

1. **Waterbody Type and Class** - - As defined by Hawaii Administrative Rules, Chapter 11-54-2, the waters adjacent to the subject parcel are classified as Class AA Open Coastal Marine Waters with bottom subtypes being a mixture of Sand Beaches and Reef Flats.
2. **National Pollutant Discharge Elimination System (NPDES) General Permit** - - the proposed actions do not trigger the criteria for a NPDES general permit. Specifically:
  - i. Construction activities, including clearing, grading, and excavation will not result in the disturbance of equal to or greater than one (1) acre of total land area. The subject parcel is approximately 15,030 square feet in size (equivalent to approximately 0.35 acres in size) and the proposed action is for the construction of a residence of approximately 2,672 square feet. Ground disturbance outside of the immediate footprint of the proposed residence will be minimal and shall be

limited primarily to the excavation needed for an Individual Wastewater System. No grading, grubbing, or excavation shall occur within close proximity to the shoreline.

- ii. As a component of the proposed action, the Applicant does not intend nor do they anticipate the need to undertake any hydro testing or any discharge associated therewith.
  - iii. No discharge of construction dewatering effluent into the adjacent oceanic waters shall occur.
3. **NPDES Individual Permit** - once again, based upon the proposed project characteristics an Individual NPDES permit will not be necessary. It is anticipated that there will be no wastewater discharged into the State waters as a result of the proposed actions.
  4. **Impaired Waters in the State of Hawaii** – The proposed actions will not affect any bodies of water that appear on the current *List of Impaired Waters in Hawaii*.
  5. **Best Management Practices (BMPs)** – BMPs shall be implemented to contain fugitive dust and runoff on the project site. Construction activities shall be restricted to areas of least impact. Job site clean-up shall occur regularly to contain and properly dispose of dust and debris generated by construction activities. Furthermore, measures will be taken during development to ensure that no construction materials, debris, petroleum products, chemicals or other potential contaminants enter the aquatic environment.

## SECTION III

### SUMMARY OF MAJOR IMPACTS &

### ALTERNATIVES CONSIDERED TO THE PROPOSED ACTION

#### A. SUMMARY OF MAJOR IMPACTS

The subject parcel is currently characterized by undeveloped land. The proposed action will result in the construction of a Single-Family Residence, which will occupy a *building envelope* of approximately 17.9% of the total title area of the parcel. The remainder of the lot (approximately 82.1%) will be landscaped and kept in open space. Site grading will be minimal in the vicinity of the footprint and access driveway for the proposed structure. The residential design and construction materials shall be compatible with the natural environment and the existing development of the area.

Long-term impacts of the proposed action shall include a marginal increase in traffic along Kuhio Highway and the perpetual increase in demand for associated public utilities. Short-term impacts associated with the development of the proposed residence will include construction noise, minor dust, and construction related traffic along Kuhio Highway. Cumulative shoreline erosion poses the most significant long-term potential impact, however the proposed residence is set conservatively back from the shoreline to adequately mitigate this concern. Other erosion impacts are negligible due to the permeability of the sandy soil characteristic of the area and the absence of any major natural drainage ways in the vicinity of the subject property.

#### B. ALTERNATIVES CONSIDERED

##### 1. NO ACTION

A “No Action” alternative would result in no construction of a residence on the subject parcel. There would be no construction activity and related employment prospects. There would be no increase in the land value or associated government revenues from higher property taxes. Moreover, the owners will not be able to use the property for their personal and preferred use. For these reasons, a no-action alternative is not favorable.

##### 2. ALTERNATIVE LOCATION

The location of the proposed structure on the subject parcel, as graphically depicted on the Site Plan (Exhibit 9), is limited by the dimensions of the parcel. Situating the proposed residence further inland from the shoreline is undesirable from the standpoint of the Applicant and unwarranted by the findings of the Historical Shoreline Erosion Analysis conducted by EKNA services. The proposed *80-foot* shoreline setback is *very conservative* and relies upon an accurate scientific interpretation of the historic data available.

### **3. ALTERNATIVE USE**

The Applicant has not identified any alternative uses for the subject parcel that would satisfy their needs. The construction of a residence has always been the intended land use for the property.

### **C. SUMMARY OF MITIGATIVE MEASURES**

The major impacts of the proposed action will occur during the construction of the proposed residence. As described herein, the primary impacts will be construction related noise and dust, as well as a temporary increase in construction related traffic along Kuhio Highway.

The Applicant will implement all of the mitigative measures described herein to prevent or reduce anticipated construction related impacts. Best Management Practices will be employed during construction to minimize airborne pollutants and dust. The heavy equipment that will be used for site grading will be properly maintained and equipped with exhaust systems and muffling devices to minimize their emissions and noise levels. Construction activities will be limited to the working hours between 7:30 AM and 5:30 PM. Noise levels shall comply with the State of Hawaii, Department of Health noise regulations. Furthermore, the Applicant agrees to adhere to any additional measures that the Board may recommend to insure against environmental degradation.

## SECTION IV

### EXPECTED DETERMINATION & SIGNIFICANCE CRITERIA

**A. DETERMINATION:**

This Draft Environmental Assessment concludes that **no significant negative impacts** upon the environment, be they primary, secondary or cumulative, will result due to the implementation of the proposed action to construct a Single Family Residence on the subject parcel. Furthermore, the action does not have any associated hidden long-term environmental or social costs. The proposed construction of a Single-Family Residence is an identified land use within the Limited Subzone of the Conservation District. As such, in compliance with HRS 343 11-200-11, a **Finding of No Significant Impact (FONSI)** is anticipated. Therefore it is the Applicant's opinion that the manageable impacts of the project do not warrant the preparation of an Environmental Impact Statement.

**B. SIGNIFICANCE CRITERIA:**

Chapter 200 of Title 11, Administrative Rules of the department of Health which is entitled "Environmental Impact Statement Rules" establishes significance criteria for evaluating the impacts of a proposed action upon the environment. The relationship of the proposed **Moragne/Bartmess Single-Family Residence** to each of these criteria is reviewed below:

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

The proposed action will not involve a loss or destruction of any natural or cultural resources.

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

The proposed action will not curtail the range of beneficial uses of the environment. Long-term negative environmental impacts are not anticipated as a result of the proposed action. All development is proposed to occur on private property.

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

The project does not conflict with the State’s long-term environmental policies, goals and guidelines.

4. **Substantially affects the economic or social welfare of the community or State.**

The project will not have a significant impact upon either the economic or social welfare of the community or State.

5. **Substantially affects public health.**

The proposed action is not anticipated to substantially or negatively impact public health. The air quality and noise impacts that will result during the construction of the proposed residence will be of a short-term and insubstantial nature.

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

The proposed action will not involve substantial secondary impacts. The development of a Single-Family Residence in an area which is already characterized by similar residential development, will not create any additional pressures of a substantial nature.

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

The proposed action is not anticipated to have a negative impact upon the environment.

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

The proposed project will not create a commitment for any larger action, nor will it contribute to a cumulative negative effect upon the environment. The proposed action is a stand-alone development project for the construction of a Single-Family Residence.

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

The project area is devoid of any rare, threatened or endangered species. The project will not place any nearby habitat at risk.

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

As identified in the text of this Environmental Assessment, air quality and noise levels will be negatively affected throughout the various phases of project construction. Nevertheless, measures are proposed herein which will help to mitigate the extent of such impacts. No long-term negative impacts will result upon the air or water quality or upon ambient noise levels as a result of the proposed action.

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

The project is situated in Zone VE 30 as designated on the Federal Flood Insurance Rate Map (FIRM) prepared by the National Flood Insurance Program. Zone VE is defined as a coastal flood area with a velocity hazard (wave action) susceptible to a 100-year tsunami inundation. County regulations regarding structures located within this coastal high hazard area require a base flood elevation for the lowest horizontal structural member of the proposed residence to be 30 ft. above Mean Sea Level (MSL). The proposed residence will be entirely compliant with these FIRM guidelines.

**12. Substantially affects scenic vistas and viewplains identified in County or State plans or studies.**

The proposed action will not substantially affect scenic vistas and/or public view plains. The proposed residence will not be readily visible from the beach. The Applicant proposes to landscape the parcel with appropriate vegetation to soften the visual impact of the development from nearby property owners and the adjacent roadway.

**13. Requires substantial energy consumption.**

The proposed Single-Family Residence will not consume substantial or undue amounts of energy.

## **SECTION V**

### **PERMITS, VARIANCES, AND APPROVALS**

**A. SPECIAL MANAGEMENT AREA USE PERMIT**

Since the project site is located within the Special Management Area (SMA), it is subject to the SMA Rules and Regulations of the County of Kauai; however, because the

project is a Single-Family Residence, it is exempt from the SMA requirements. A letter from the County of Kauai Planning Department confirming SMA exempt status is included as Exhibit 16.

**B. SHORELINE CERTIFICATION**

A shoreline survey, dated March 6, 2007, has been submitted to the State DLNR, Land Division for review and certification. Copies of the proposed shoreline survey & submittal materials are included herewith as Appendix 3.

**C. OTHER DEPARTMENTAL PERMITS**

Additional construction related permits shall be obtained from both County and State agencies as is required of the Building Permit process which is administered by the Department of Public Works, County of Kauai. This shall include among other things a Department of Health approval for an Individual Wastewater System (IWS), and Public Works approval for grading, grubbing and structural design.

---

<sup>i</sup> Dye, T.S. (2007, August 28) *An Archaeological Assessment of a Coastal Lot, TMK (4) 5-9-05: 027, at Ha'ena, Halele'a, Kaua'i*. Prepared for Landmark Consulting Services Inc., Honolulu: T.S. Dye & Colleagues, Archaeologists, Inc.

<sup>ii</sup> Hawaii Coastal Hazard Mitigation Guidebook, prepared for the Office of Conservation and Coastal Lands, Department of Land and Natural Resources, Coastal Zone Management Program, Office of Planning, State of Hawaii, University of Hawaii Sea Grant College Program and the Pacific Services Center – NOAA, prepared by Dennis J. Hwang, January 2005.