FINAL ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

TMKs (3rd): 6-9-001:017 (por.) and 6-9-006:051 (por.)
Puakō, South Kohala District, County of Hawai‘i, State of Hawai‘i

August 2008

Prepared for:

State of Hawai‘i
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, Hawai‘i 96813

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CLASS OF ACTION:

Use of State Lands
Action in the Conservation District

This document is prepared pursuant to:
The Hawai‘i Environmental Policy Act,
Chapter 343, Hawai‘i Revised Statutes (HRS), and
Title 11, Chapter 200, Hawai‘i Department of Health Administrative Rules (HAR).

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SUMMARY OF THE PROPOSED ACTION, ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The Puakō Community Association proposes to utilize a 625-foot long by 30-foot wide portion of State of Hawai‘i land located in the Conservation and Urban Districts in order to build a gated emergency roadway. This roadway would connect the end of Puakō Beach Road with Holoholo Kai Beach Park Access Road using portions of State-owned parcels TMKs (3rd) 6-9-01:017 and 6-9-006:051. Parcel 6-9-001:017 is currently leased by Mauna Lani Resort (Operation), Inc.

The purpose of this project is to provide an emergency access and evacuation route. The gravel roadway would be gated and locked at both ends during normal conditions and would be opened only during emergencies as authorized by the County of Hawai‘i Civil Defense Agency.

Currently the Puakō community has only one evacuation route out of the area in the event of emergencies such as wildfires, high surf, tsunami, and traffic accidents. Wildfires throughout the years have threatened the community; one on October 28, 2007 burned 1,500 acres near Puakō Beach Road, approaching within a quarter mile of 200 homes and prompting the evacuation of 400 people. In addition, the October 15, 2006 Richter magnitude 6.7 earthquake's epicenter was approximately 15 miles from Puakō, causing extensive damage and highlighting the need for alternative access in case of tsunami. Construction of this emergency road has long been the goal of the Puakō Community Association, which is solely funding the project.

The project corridor is dominated by non-native, invasive species and no threatened or endangered plants or animals would be affected. A very small anchialine pool located approximately 15 feet from the edge of the roadway would not be affected by construction or use of the unpaved, emergency-only roadway. The project would not harm shoreline resources or access. As the roadway would be gated during normal conditions, traffic would not be affected. The project corridor would pass near the Puakō Petroglyph Preserve, but archaeological inventory survey has assured that no resources would be affected. The impact of failing to build the road would be the continuation of risk to human life and property in the event of a natural disaster.

PART 1: PROJECT DESCRIPTION, PURPOSE AND NEED AND ENVIRONMENTAL ASSESSMENT PROCESS

1.1 Project Description, Location and Purpose and Need

The Puakō Community Association (PCA) proposes to utilize a 625-foot long by 30-foot wide portion of State of Hawai‘i lands partially located in the Conservation District in order to build an emergency access roadway (Figures 1-5; Appendix 5). The project is located in the community of Puakō in the South Kohala District, County of Hawai‘i. This road would connect the end of Puakō Beach Road with Holoholo Kai Beach Park Access Road using parts of TMKs (3rd): 6-9-001:017 (Conservation District, leased to Mauna Lani Resort (Operation) Inc.) and 6-9-006:051 (Urban District, unencumbered). The roadway would be more than 300 feet from the shoreline in the Conservation and Urban Districts and within the Special Management Area. The PCA expects to manage the emergency road, including upkeeping the surface and managing the vegetation, through a contract with an entity that will also be maintaining a firebreak behind the community. As discussed in Section 3, no sensitive resources such as archaeological sites, rare, threatened or endangered species, or water features are present in the corridor that would be disturbed to build the road, which currently has a low forest of the alien species kiawe.

The purpose of this project is to provide an emergency access and evacuation route. Prior to construction, an easement, lease, sublease from Mauna Lani, or Set-Aside from the Department of Land and Natural Resources will be required. The gravel roadway would be gated and locked at both ends during normal conditions and would be opened only during emergencies as authorized by the County of Hawai‘i Civil Defense Agency. The Kohala Coast Fire Station would have primary responsibility for opening the gate, which for security purposes would be equipped with a Knox Box opened by a County master key and containing the key for the gate lock. Police, County Department of Public Works and State Division of Forestry and Wildlife personnel would also have keys to and could open the gate.

Currently the Puakō community has only one evacuation route out of the area in the event of emergencies such as wildfires, high surf, tsunami, and traffic accidents. Wildfires throughout the years have threatened the community; one on October 28, 2007 burned 1,500 acres near Puakō Beach Road, approaching within a quarter mile of 200 homes and prompting the evacuation of 400 residents (see Figure 2 and Appendix 1). In addition, the October 15, 2006 Richter magnitude 6.7 earthquake’s epicenter was approximately 15 miles from Puakō, causing extensive damage and highlighting the need for alternative access in case of tsunami. Construction of this emergency access road has long been the goal of the Puakō Community Association, which is solely funding the project. Appendix 2 includes materials documenting agreements on this project between the Puakō Community Association and Mauna Lani Resort.

1.2 Environmental Assessment Process

This Environmental Assessment (EA) process is being conducted in accordance with Chapter 343 of the Hawai‘i Revised Statutes (HRS). This law, along with its implementing regulations,

Figure 1. Project Location Map

Title 11, Chapter 200, of the Hawai‘i Administrative Rules (HAR), is the basis for the environmental impact assessment process in the State of Hawai‘i. According to Chapter 343, an EA is prepared to determine impacts associated with an action, to develop mitigation measures for adverse impacts, and to determine whether any of the impacts are significant according to thirteen specific criteria. Part 4 of this document states the anticipated finding that no significant impacts are expected to occur; Part 5 lists each criterion and presents the anticipated preliminary findings by the approving agency, the State of Hawai‘i Department of Natural Resources. If, after considering comments to the Draft EA, the approving agency concludes that, as anticipated, no significant impacts would be expected to occur, then it will issue a Finding of No Significant Impact (FONSI), and the action will be permitted to occur. If the agency concludes that

Figure 2. The October 28, 2007 Puakō Wildfire (from Queen Ka'ahumanu Highway)

Puakō Fire Station is visible on the right-hand side. Photo courtesy Bill Adams (www.billadams.net).

Figure 3. Project Site TMK Map (Plats 6-9-1 & 6-9-6)

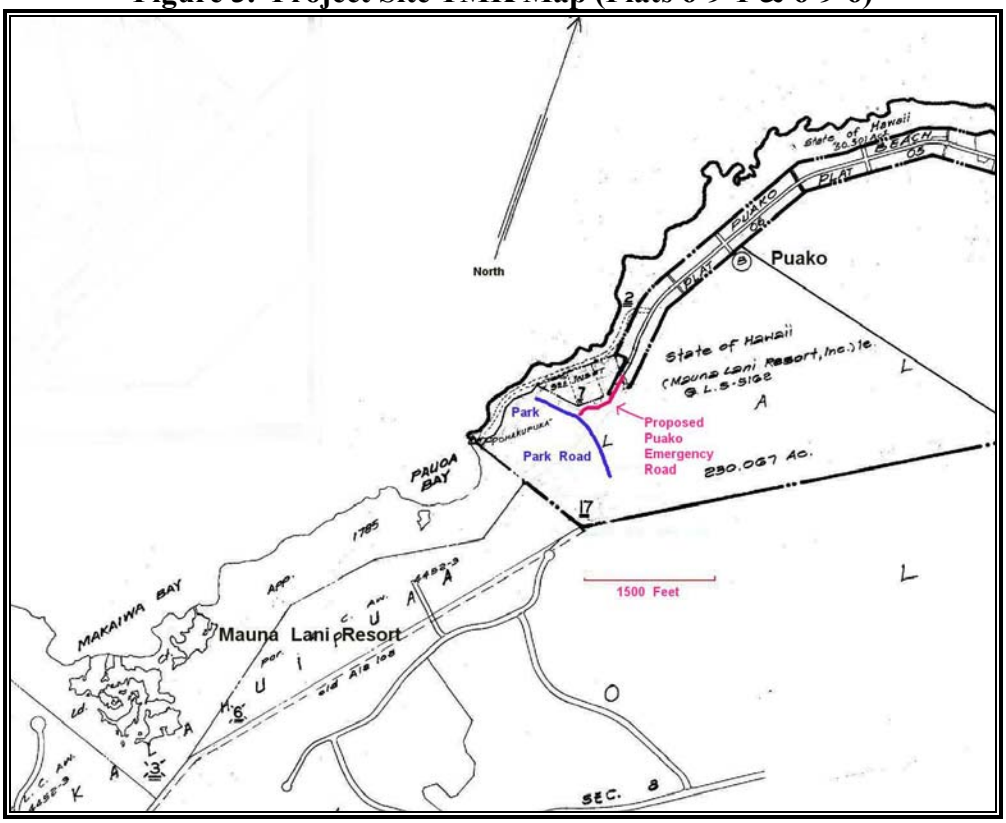

Figure 4. Project Site Aerial Imagery Map

Figure 5. Project Site Photos

Top: End of Puakō Beach Road; Middle: Anchialine pool off road; Bottom: Asphalt Trail

significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) will be prepared.

1.3 Public Involvement and Agency Coordination

The following agencies and organizations were consulted in development of the Environmental Assessment.

State:
- Department of Health, Environmental Health Administration
- Department of Land and Natural Resources, Director
- Department of Land and Natural Resources, Division of Forestry and Wildlife
- Department of Land and Natural Resources, Office of Conservation and Coastal Lands
- Department of Land and Natural Resources, Aquatic Resources Division
- Department of Land and Natural Resources, Historic Preservation Division
- Office of Hawaiian Affairs

County:
- County Council
- Department of Public Works
- Hawai‘i Fire Department
- Department of Water Supply
- Planning Department
- Police Department
- Civil Defense

Private:
- Mauna Lani Resort Association
- Mauna Lani Resort, Inc.
- South Kohala Hawaiian Civic Club
- Sierra Club
- Neighboring Property Owners

Letters in response to early consultation are included in Appendix 4a. Appendix 4b contains written comments on the Draft EA and the responses to these comments. Various places in the EA have been modified to reflect input received in the comment letters; additional or modified non-procedural text is denoted by double underlines, as in this paragraph.

1.4 Cost and Schedule

The project cost is estimated at approximately $50,000, a figure which will be refined during the bid process. The project would be solely funded by the Puakō Community Association. The project would commence as soon as permitting is completed. The parcels would remain under State ownership, with parcel 6-9-001:017 (or its remainder) continuing to be leased by Mauna Lani Resort (Operation), Inc., which will allow PCA use of this parcel at no cost.

PART 2: ALTERNATIVES

2.1 No Action Alternative

Under the No Action Alternative, the emergency road would not be constructed and Puakō would remain with only one access route. Risks to public safety and property that would be alleviated by the project would remain. The Puakō Community Association (PCA) therefore considers the No Action Alternative unacceptable.

2.2 Alternative Locations and Strategies

The selected alignment was chosen after careful consideration by the PCA, to minimize both cost and environmental impact, and review by the Land Division of DLNR, to minimize unusable portions of State Property. The PCA explored the alternative of using an escape route near the Catholic Church, which did not appear practical. The PCA also examined a route using several hundred feet of private driveway on parcel TMK 6-9-001:028, then traversing south to Holoholo Kai Beach Park Road. This alternative was not amenable to the property owner, in part because it would have required removal of a structure on the property.

While other alignments are possible, all would involve longer and more expensive routes with unknown or greater environmental impacts to archaeological resources or anchialine pools. The planned alignment is both the most cost-effective route available with minimum environmental impact, and no other more practical alternative routes exist. As there do not appear to be any environmental or other disadvantages associated with the proposed action, and no routes or alternative strategies with any advantages exist, no alternative sites have been advanced for consideration in this Environmental Assessment.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Basic Geographic Setting

The roadway alignment is referred to throughout this EA as the *project corridor*. The parent parcels, TMKs 6-9-001:017 and 6-9-006:051, are referred to as the *project site*. The term *project area* is used to describe the general environs of Puakō, lower Lalamilo ahupuaʻa, and the South Kohala District.

The project corridor is located at about 5-10 feet above sea level near the end of Puakō Beach Road approximately 200 feet from the shoreline in the community of Puakō in the South Kohala District (see Figures 3 & 4). The corridor would connect Puakō Beach Road with Holoholo Kai Beach Park road, allowing access to Queen Kaʻahumanu Highway (SR 19) through roadways of the Mauna Lani Resort. The vegetation of the project area has been previously disturbed by grazing and other uses, and the project corridor is predominantly covered with secondary, non-native plants. The average maximum daily temperature is approximately 83 degrees F, with an average minimum of 69 degrees, and annual rainfall averages less than 10 inches, making this area the driest on the island (U.H. Hilo-Geography 1998:57). Adjacent land use is primarily residential and resort with some undeveloped lots generally located to the mauka side of the project corridor and along the shoreline.

3.1 Physical Environment

3.1.1 Geology, Soils and Geologic Hazards

Environmental Setting

Geologically, the project corridor is located on 3,000 to 5,000 year-old ʻaʻa and pahoehoe lava flows from Mauna Loa volcano (Wolfe and Morris 1996). No lava tube caves were detected during field surveys. Soil maps indicate a lack of developed soils (U.S. Soil Conservation Service 1973).

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. Volcanic hazard in the project area is as assessed by the United States Geological Survey as 3 on a scale of ascending risk 9 to 1 (Heliker 1990:23). This relatively high hazard risk for the Island of Hawaiʻi is based on the fact that the project area has been inundated by lava flows from Mauna Loa, an active volcano. Volcanic hazard zone 3 areas have had about 1-5 percent of their land area covered by lava or ash flows since the year 1800.

In terms of seismic risk, the entire Island of Hawaiʻi is rated Zone 4 Seismic Probability Rating (Uniform Building Code, 1997 Edition, Figure 16-2). Zone 4 areas are at risk from major earthquake damage, especially to structures that are poorly designed or built, as the 6.7-

magnitude (Richter) quake of October 15, 2006, demonstrated. The project corridor does not appear to be subject to subsidence, landslides or other forms of mass wasting.

Impacts and Mitigation Measures

In general, geologic conditions do not appear at this time to impose any overriding constraints on the project, and no mitigation measures are expected to be required. However, it is recognized that much of the surface of Hawai‘i Island is subject to eventual lava inundation and that infrastructure in places such as Puakō face this risk. However, there are no alternative routes or other options that avoid these risks, and the project will help the community respond to and properly manage these risks. As all of Puakō has a similar hazard, geologic hazards impose no particular constraints on the proposed action, and the proposed roadway is not imprudent to construct.

The No Action Alternative would avoid geologic hazards and risks and potential loss or damage to the project corridor itself, but this would be of negligible benefit relative to the continued risks to the Puakō community.

3.1.2 Drainage, Water Features and Water Quality

Existing Environment

Near the project corridor is only one surface water body, an anchialine pond of less than 50 square feet located about 15 feet from the edge of the project corridor (Figures 4 and 5). This very small pool contains water only at high tide. No known areas of local (non-stream related) flooding are present. The Flood Insurance Rate Maps (FIRM) 1551660278C (9/16/1988) show that the project corridor is in Flood Zone X, outside of the 100-year or 500-year floodplain. According to County of Hawai‘i Civil Defense, the project corridor is located within the tsunami inundation zone.

Impacts and Mitigation Measures

The action would remove vegetation from the project corridor and replace it with a graded, gravel, and permeable surface. There would be no long-term adverse impacts to drainage or water quality because the roadway would not create an impermeable surface. The anchialine pond would not be affected, which will be identified by orange construction fencing and protected during construction. Tsunami inundation presents no particular concern due to the nature of the project.

Construction-phase impacts have the potential to produce uncontrolled excess sediment from soil erosion during and after excavation and construction that may impact natural watercourses, water quality and flooding. Contaminants associated with heavy equipment and other sources during construction have the potential to impact surface water and groundwater if not mitigated

effectively, although such potential in this site is limited because of the small scale of the project. In order to minimize the potential for sedimentation and erosion, the contractor shall perform all earthwork and grading in conformance with Chapter 10, Erosion and Sediment Control, Hawai‘i County Code. The contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP). In order to properly manage storm water runoff, the SWPPP will describe the emplacement of a number of best management practices (BMPs) for the project. These BMPs may include, but will not be limited to, the following:

- Minimization of sediment loss by emplacement of structural controls possibly including silt fences, gravel bags, sediment ponds, check dams, and other barriers in order to retard and prevent the loss of sediment from the site;
- Minimizing disturbance of soil during periods of heavy rain;
- Phasing of the project to disturb the minimum area of soil at a particular time;
- Application of protective covers to soil and material stockpiles;
- Use of drip pans beneath vehicles not in use in order to trap vehicle fluids;
- Routine maintenance of BMPs by adequately trained personnel; and
- Significant leaks or spills, if they occur, shall be properly cleaned up and disposed of at an approved site.

The project will be regulated through review, revision and approval by the Hawai‘i County Department of Public Works (DPW) to ensure compliance with standards related to storm water runoff containment.

3.1.3 Flora, Fauna and Ecosystems

Existing Environment

The natural vegetation of this part of coastal South Kohala was most likely coastal shrubland dominated by ‘ilima (*Sida fallax*) (Gagne and Cuddihy 1990). These original communities, however, have been destroyed or heavily degraded by cattle grazing and clearing for residences, and the vegetation of the project area is now a fairly uniform forest of kiawe (*Prosopis pallida*), which depends on shallow coastal groundwater, with the remnant ‘ilima indicative of the preexisting ecosystem.

A walk-through biological survey of the project corridor was performed in October 2007. Table 1 is a list of plant species detected in the project corridor. The species detected are mostly introduced (and invasive) species but two common indigenous species are also present. No listed, candidate or proposed endangered plant species were found or would be expected to be found on the project corridor (UFWS 2000). In terms of conservation value, no botanical resources requiring special protection are present.

Table 1. Plant Species Detected on Puakō Emergency Road Corridor

Scientific Name	Family	Common Name	Life Form	Status*
Boerhavia coccinea	Nyctaginaceae	Boerhavia	herb	A
Cenchrus ciliaris	Poaceae	Buffel grass	grass	A
Cleome gynandra	Capparaceae	Spider wisp	herb	A
Pennisetum setaceum	Poaceae	Fountain grass	grass	A
Pluchea symphytifolia	Asteraceae	Sourbush	shrub	A
Prosopis pallida	Fabaceae	Kiawe	tree	A
Senna occidentalis	Fabaceae	Coffee senna	tree	A
Sida fallax	Malvaceae	‘Ilima	shrub	I
Waltheria indica	Sterculiaceae	‘Uhaloa	shrub	I

* A = alien, E = endemic, I = indigenous; Two desiccated weed species also detected but not identified.

Birds in the project corridor are overwhelmingly alien, and no threatened or endangered species would likely be present. Little is known about the roosting sites of the endangered Hawaiian Hoary Bat (*Lasiurus cinereus semotus*), which is often found in alien as well as native vegetation in a variety of locations throughout the island of Hawai‘i. Hawaiian Hoary Bats are unlikely to utilize the kiawe trees found on the project corridor for roosting, although they may fly over the site and forage in the area.

Impacts and Mitigation Measures

Because of the nature of the project, and the lack of native ecosystems, or threatened or endangered plant species, no adverse impacts to botanical resources would occur as a result of the action. It is unlikely that construction of the project would likely pose any impact to any threatened or endangered birds or to Hawaiian Hoary Bats. The contractor will also be required to prepare and implement a fire hazard management plan during construction, as use of heavy equipment in such a dry area presents a potential for ignition of dry foliage and vegetative material.

3.1.4 Air Quality, Noise, and Scenic Resources

Environmental Setting,

Air quality in the project area, which is far removed from industrial land uses or major highways, is generally good and there are no permanent air pollution problems. Air quality in Puakō has been recently impaired by the October 28, 2007 wildfire and the resulting smoke, dust, and ash.

Noise in the project area is low and derived mainly from motor vehicles in the area, recreational use, and ocean and wind noise.

Puakō Bay, specifically the shoreline areas including TMKs 6-9-001:002 and 6-9-002:007 & 008, is noted as being of particular natural beauty in the County of Hawai‘i General Plan (County of Hawai‘i 2006).

Impacts and Mitigation Measures

Air quality impacts would be limited to the construction phase, and would include exhaust from construction vehicles, as well as the potential for fugitive dust emissions during grubbing and grading. Impacts due to vehicle exhaust would be negligible due to the small scale of the project and distance of about two hundred feet to sensitive receptors (the closest residence). In order to minimize impacts from dust, the contractor would prepare a dust control plan compliant with provisions of Hawai‘i Administrative Rules, Chapter 11-60.1, “Air Pollution Control,” Section 11-60.1-33, “Fugitive Dust”.

Noise impacts would be limited to the construction phase because the road would only be utilized in the event of an emergency, when noise is an inconsequential consideration. Currently, few highly sensitive noise receptors such as residences, schools, or parks are present, and because the project corridor is located away from most residences in Puakō, the potential for having many and/or very sensitive receptors is small. Construction will elevate noise levels during short periods over the duration of construction as it would involve excavation, grading, compressors, vehicle and equipment engine operation, and construction of new infrastructure (gates). These activities may generate noise exceeding 95 decibels at times, impacting nearby sensitive noise receptors. The contractor will be required to consult with the Department of Health’s (DOH) and determine whether construction noise is expected to exceed the DOH “maximum permissible” property-line noise levels. Because of the lack of nearby sensitive receptors and small scale of the project, noise impacts are unlikely to be significant. However, if necessary, the contractor will obtain a permit per Title 11, Chapter 46, HAR (Community Noise Control) prior to construction. DOH would review the proposed activity, location, equipment, project purpose, and timetable in order to decide upon conditions and mitigation measures, such as restriction of equipment type, maintenance requirements, restricted hours, and portable noise barriers.

While the project is near areas identified as being as of particular natural beauty and scenic value in the County of Hawai‘i General Plan (i.e., Puakō Bay and nearby shoreline areas), the emergency road would be not be visible from these areas due to intervening vegetation and structures, and visual impact would be negligible. The emergency road would cross the asphalt trail to Holoholo Kai Beach Park to the petroglyphs and connect with the Holoholo Kai Beach Park access road in a scenic area. The Puakō Community Association will work with Mauna Lani to minimize scenic impacts and mitigate them through surface treatment and landscaping.

3.1.5 Hazardous Substances, Toxic Waste and Hazardous Conditions

Environmental Setting, Impacts and Mitigation Measures

No known hazardous substances are present on the project corridor, which is vacant and does not appear to have undergone any active land use in modern times. The history of use of the site and its surroundings, having been unused, does not suggest the presence of hazardous materials. Additionally, visual surveys of the preferred site and its surroundings did not suggest the use or presence of hazardous materials, including the presence of structures, equipment, or storage containers that might be indicative of hazardous material use. Therefore, based upon prior and present use of the project site, no hazardous substances, toxic wastes, or hazardous conditions are expected to be present on the project corridor. While an isolated roadway may present an appealing site for illegal disposal of waste for certain individuals, the emergency road will be gated at both ends, discouraging this activity.

3.2 Socioeconomic and Cultural

3.2.1 Socioeconomic Characteristics

The project would affect and benefit the community of Puakō. Table 2 provides information on the socioeconomic characteristics of the project area (Puakō Census Designated Place), along with those of Hawai‘i County as a whole for comparison, from the United States 2000 census.

Table 2. Selected Socioeconomic Characteristics

CHARACTERISTIC	ISLAND OF HAWAI‘I	PUAKŌ CDP
Total Population	148,677	429
Percent Caucasian	31.5	71.6
Percent Asian	26.7	11.4
Percent Hawaiian	9.7	4.4
Percent Two or More Races	28.4	12.6
Median Age (Years)	38.6	48.1
Percent Under 18 Years	26.1	11.7
Percent Over 65 Years	13.5	15.2
Percent Households with Children	32.2	16.3
Average Household Size	2.75	2.00
Percent Housing Vacant	15.5	44.1

Source: U.S. Bureau of the Census. May 2001. *Profiles of General Demographic Characteristics, 2000. Census of Population and Housing, Hawai‘i.* (U.S. Census Bureau Web Page).

Impacts

The project is essentially minor in nature, involving the expenditure of private funds that would have a very minor positive economic impact. The No Action Alternative involves the potential for significant disruption in community well-being, should a major natural disaster take place of a nature by which the project could alleviate a portion of the negative effects.

3.2.2 Cultural and Historic Resources

Although the road corridor occupies less than half an acre in an area surrounded by residences and resort uses, a full archaeological inventory survey that also provided information on cultural uses was conducted by Rechtman Consulting. This survey is contained in Appendix 3 and is summarized below.

Cultural and Historic Background

A large number of previous studies established settlement patterns and chronologies for the project area. The pattern of settlement of the project area is based on the settlement model of Kirch (1985). Initial settlement of western Hawai‘i Island probably occurred by c. A.D. 600 (Jensen 1994). As population in this region grew through the following centuries so did the reach of inland cultivation in the upland environmental zones and consequent political and social stresses. During the Proto-Historic Period (A.D. 1650-1795), wars reflective of a complex and competitive social environment are evidenced by *heiau* building. During this period, sometime during the reign of Kalaniopu‘u (A.D. 1736 – 1758) Kamehameha I was born in the ahupua‘a of Kokoiki, in the district of North Kohala near the Mo‘okini Heiau. Kamehameha I’s ancestral homeland was in Halawa, North Kohala (Williams 1919). After contact, demographic changes notably including trade marked the end of the Proto-Historic Period and the end of the uniquely Hawaiian culture.

Puakō literally translates as “sugarcane blossom” (Pukui et al. 1974). Although this clearly indicates sugarcane cultivation in the project area, land use in the coastal Puakō area probably centered upon marine resource extraction and salt production.

The sandalwood (*Santalum ellipticum*) trade flourished by 1810 and caused a massive shift in settlement, as former farmers were displaced to provide labor for harvest and transportation of sandalwood for the profit of the *ali‘i*. Further massive demographic changes were wrought by the Great Mahele, the implementation of western-style land ownership that largely placed all land ownership in the hands of the king and other *ali‘i*. The ahupua‘a of Lalamilo was awarded to Lunalilo (Kamehameha V) and four kuleana claims were also recorded along the Puakō coast.

In 1937 Annabelle Nako‘olaniohakau Low-Ruddle and her husband Albert traded some of their Hilo lands for roughly 7.5 acres of government land directly makai of the current project area, now known as Paniau (Maly 1999). The United States Military also used coastal South Kohala, as well as upland lands of Waikoloa, for World War II training exercises (Jensen 1994).

Archaeological Resources: Existing Environment

A large number of previous archaeological studies have been performed in the Puakō area and the surrounding ahupuaʻa from Kawaihae south to Anaehoʻomalu Bay. Sites identified in coastal areas of Puakō include caves, petroglyphs, cairns, trails, rock and cave shelters, refuge caves, burials, a holua slide, and a number of features associated with habitation sites. Also, trail networks, both along the coastline and mauka/makai, have been identified in the project area. While more mauka areas near Waimea and Poʻopoʻo near Keamuku (Jensen 1994) contain extensive agricultural complexes, the absence of these complexes in the project area suggests an emphasis on marine resource extractions.

The Puakō Petroglyph Archaeological District, listed on both the State and National Historic Registers (SIHP Site No. 4713), is located on parcel TMK 6-9-01:15, northeast of the project corridor. The site was listed on the State of Hawaiʻi Register of Historic Places in 1982, and in April of 1983 it was listed on the National Register. The site area was formally recorded by the Bishop Museum in 1964 (Kennedy 1980) and was noted as "being one of the largest fields of its kind in the Hawaiian Islands" (Dunn and Rosendahl 1992, Appendix B:B-4); the petroglyph area consists of three major groupings of more than 3,000 incised figures and represents some of the oldest images in the Hawaiian Islands.

The archaeologists surveyed a 30-meter corridor following the centerline of the surveyed road corridor. The northern segment of the corridor on parcel 6-9-006:051 had apparently been bulldozed. The archaeologists identified one archaeological feature within the project corridor, Site 26258, located near the southern terminus of the project corridor. Site 26258 is 25-meter long trail segment that runs in a northeasterly/southwesterly direction across an ʻaʻa flow between the Holoholo Kai Beach Park road and the paved pathway leading to the Puakō petroglyph field. This trail is a barely discernable pathway that has been cleared of larger ʻaʻa cobbles, leaving an ʻaʻa clinker trail of small cobbles and gravels that is darker in appearance than the surrounding natural flow. Holoholo Kai Beach Park Road crosses this trail, and the trail does not appear to continue beyond the paved petroglyph pathway.

Archaeological Impacts and Mitigation Measures

Site 26258 is considered significant under Criterion D for information it has presented relative to past land use within the current project area. Site 26258 has already been partially destroyed. Any further potential adverse impacts to Site 26258 resulting from the proposed emergency road have been successfully mitigated by information collected during the current study. As such, no further work is the recommended treatment for this site.

The archaeologist requested a written determination from the State Historic Preservation Division (SHPD) of "no historic properties affected" for the preferred site, in accordance with HAR 13§13-284-5(b)1. By letter of February 27, 2008 (see end of Appendix 3), the State Historic Preservation Division concurred with this conclusion.

Although no lava tubes appear to be present, the construction contractor and crew will be informed that if a previously undetected lava tube is breached during construction, all construction with the potential to impact the lava tube will immediately cease and that SHPD will be contacted. Furthermore, in the unlikely event that any archaeological resources are encountered during road construction, work in the immediate area of the discovery should be halted and DLNR-SHPD contacted as outlined in Hawai‘i Administrative Rules 13§13-275-12.

Existing Cultural Resources

As part of the current study an effort was made to obtain information about any potential traditional cultural properties and associated practices in and around the project corridor. The Office of Hawaiian Affairs and the South Kohala Hawaiian Civic Club were contacted but had no information relative to the existence of traditional cultural properties in the immediate vicinity of the current project area; nor did they provide any information indicating current use of the area for traditional and customary practices. Similarly, consultation with neighboring landowners and information from the community association did not indicate any resources or activities occurring in the affected area. In the broader area, shoreline uses including fishing, gathering, and surfing are culturally important ongoing activities. These activities do not occur in or near the project corridor and would not be affected by the project. Another important activity is viewing the petroglyphs that are accessed by the asphalt park trail from Holoholo Kai Beach Park, which is crossed by the proposed emergency road. No effects to this activity would occur.

Cultural Resources: Impacts and Mitigation Measures

No cultural resources or practices appear to be present within the less than half an acre of kiawe forest occupied by the road corridor, as it is away from the shoreline in an area of no cultural resources. The project will not affect the petroglyph field or access to it in any way. It is reasonable to conclude that based upon the apparent lack of resources and uses, the exercise of native Hawaiian rights related to gathering, access, or other customary activities will not be affected, and there will be no adverse effect upon cultural practices or beliefs. This determination was to be reviewed in light of any comments received on the Draft Environmental Assessment; no comments related to cultural impacts were received.

3.3 Infrastructure

3.3.1 Utilities and Public Services

Existing Facilities and Services and Impacts

There are no utilities supplied to the site, and none are needed. The action would not have any impact on existing utilities, as no improvements or modifications to the site are planned at this time.

The South Kohala Fire Station is located near the intersection of Puakō Beach Road and Queen Ka‘ahumanu Highway (SR19), approximately three miles from the project corridor. The project could benefit the Puakō Fire Station and the Hawai‘i Fire Department by facilitating their management of emergencies including fires.

Because of the nature of the project, no other public services or utilities would be affected by the project.

If a serious natural disaster such as a wildfire threatens the Puakō community, public emergency and medical facilities could be seriously stressed and perhaps overwhelmed should the No Action Alternative be chosen and the road not built.

3.3.2 Roadways

Existing Facilities, Impacts and Mitigation Measures

The roadway would be accessed by Puakō Beach Road, a two-lane County road, and would terminate at the Holoholo Kai Beach Park Access Road. Because the emergency road would be gated and only opened during emergencies by County of Hawai‘i Civil Defense, there would be no impacts on traffic. In the event that the emergency road is used, County of Hawai‘i Civil Defense would direct traffic. The Kohala Coast Fire Station would have primary responsibility for opening the gate, which for security purposes would be equipped with a Knox Box opened by a County master key and containing the key for the gate lock. Police, County Department of Public Works and State Division of Forestry and Wildlife personnel would also have keys to and could open the gate.

3.4 Secondary and Cumulative Impacts

The project will not involve any secondary or cumulative impacts, such as population changes or effects on public facilities.

Cumulative impacts result when implementation of several projects that individually have limited impacts combine to produce more severe impacts or conflicts in mitigation measures. The project, being limited to construction of a roadway that would be opened only in the event of an emergency, has impacts that are essentially limited to construction-phase impacts. At the current time, according to files at the Planning Department and notices filed in the *OEQC Environmental Notice*, there do not appear to be any roadway, utility or development projects being undertaken near the project site that would combine in such a way as to produce adverse construction-phase cumulative effects or involve a commitment for larger action.

3.5 Required Permits and Approvals

The following permits and approvals would be required:

- Conservation District Use Permit
- Department of Land and Natural Resources Easement, Lease, Sublease, or Set-Aside
- County of Hawai‘i Special Management Area Exemption or Permit
- County of Hawai‘i Grading and Grubbing Permits

3.6 Consistency with Government Plans and Policies

3.6.1 Hawai‘i State Plan

Adopted in 1978 and last revised in 1991 (Hawai‘i Revised Statutes, Chapter 226, as amended), the Plan establishes a set of themes, goals, objectives and policies that are meant to guide the State's long-run growth and development activities. The three themes that express the basic purpose of the *Hawai‘i State Plan* are individual and family self-sufficiency, social and economic mobility and community or social well-being. The proposed project would promote these goals by helping to ensure community well-being and safety in the project area.

3.6.2 Hawai‘i County General Plan and Zoning

The *General Plan* for the County of Hawai‘i is a policy document expressing the broad goals and policies for the long-range development of the Island of Hawai‘i. The plan was adopted by ordinance in 1989 and revised in 2005 (Hawai‘i County Department of Planning). The *General Plan* itself is organized into thirteen elements, with policies, objectives, standards, and principles for each. There are also discussions of the specific applicability of each element to the nine judicial districts comprising the County of Hawai‘i. Most relevant to the proposed project are the following Goal and Policies, and Courses of Action of particular chapters of the General Plan:

Environmental Quality – Goals
(a) Define the most desirable use of land within the County that achieves an ecological balance providing residents and visitors the quality of life and an environment in which the natural resources of the island are viable and sustainable.
(b) Maintain and, if feasible, improve the existing environmental quality of the island.
(c) Control pollution.
Environmental Quality – Policies
(a) Take positive action to further maintain the quality of the environment.
Environmental Quality – Standards
(a) Pollution shall be prevented, abated, and controlled at levels that will protect and preserve the public health and well being, through the enforcement of appropriate Federal, State and County standards.
(b) Incorporate environmental quality controls either as standards in appropriate ordinances

or as conditions of approval.
(c) Federal and State environmental regulations shall be adhered to.

Discussion: The project will include mitigation for potential impacts to water quality due to proximity to the shoreline and an anchialine pond. The project constitutes a desirable use that will help to alleviate serious hazards to the Puakō community and will not have an adverse impact on environmental quality. Therefore the action is consistent with relevant goals, policies, and courses of action of the Environmental Quality section of the County of Hawai‘i General Plan.

Flooding and Other Natural Hazards - Goals
(a) Protect human life.
(d) Prevent damage from inundation.
Flooding and Other Natural Hazards - Policies
(q) Consider natural hazards in all land use planning and permitting.
Flooding And Other Natural Hazards -Standards
(a) "Storm Drainage Standards," County of Hawaii, October, 1970, and as revised.
(b) Applicable standards and regulations of Chapter 27, "Flood Control," of the Hawai‘i County Code.
(d) Applicable standards and regulations of Chapter 10, "Erosion and Sedimentation Control," of the Hawaii County Code.

Discussion: The project will help to alleviate potential hazards from fire, flooding, tsunami inundation, and other natural hazards to the Puakō community. The project will abide by applicable standards and regulations regarding drainage and erosion and sedimentation control. Therefore the action is consistent with relevant goals, policies, and courses of action of the Flooding and Other Natural Hazards section of the County of Hawai‘i General Plan.

Historic Sites – Goals
(a) Protect, restore, and enhance the sites, buildings, and objects of significant historical and cultural importance to Hawaii.
Historic Sites – Policies
(c) Require both public and private developers of land to provide historical and archaeological surveys and cultural assessments, where appropriate, prior to the clearing or development of land when there are indications that the land under consideration has historical significance.

Both the Kiholo-Puakō Trail and the Puakō Petroglyph Archaeological District are noted as Historic Sites in the North and South Kohala section of the Historic Sites chapter of the County of Hawai‘i General Plan.

Discussion: An archaeological inventory and a cultural assessment have been performed on the project site. The project will be constructed without impacting any resources, consistent with the goals, standards and policies of the Historic Sites chapter of the County of Hawai‘i General Plan.

Natural Beauty – Goals
(a) Protect, preserve and enhance the quality of areas endowed with natural beauty, including the quality of coastal scenic resources.
(b) Protect scenic vistas and view planes from becoming obstructed.
Natural Beauty - Policies
(h) Protect the views of areas endowed with natural beauty by carefully considering the effects of proposed construction during all land use reviews.
(i) Do not allow incompatible construction in areas of natural beauty.

Discussion: The project will not have a significant visual impact on the project area. Therefore, the proposed action satisfies relevant goals and policies of the Natural Beauty chapter of the County of Hawai‘i General Plan.

Transportation – Goals
(a) Provide a transportation system whereby people and goods can move efficiently, safely, comfortably and economically.
Transportation - Policies
(c) The improvement of transportation service shall be encouraged.
(f) Work with various non-profit agencies to coordinate transportation opportunities.
Transportation – Roadways – Goals
(a) Provide a system of roadways for the safe, efficient and comfortable movement of people and goods.
Transportation – Roadways - Policies
(b) Investigate various methods of funding road improvements, including private sector participation, to meet the growing transportation needs of the island.

Discussion: The project will utilize private funding in order to provide for safe movement of people and goods. Therefore, the proposed action satisfies relevant goals and policies of the Transportation chapter of the County of Hawai‘i General Plan.

Land Use – Family Residential - Goals
(b) To ensure compatible uses within and adjacent to single-family residential zoned areas.
(e) To enhance the overall quality of life in our residential communities.
Land Use – Family Residential - Policies
(b) Encourage innovative uses of land with respect to geologic and topographic conditions through the use of residential cluster and planned unit developments.
Land Use – Open Space - Goals
(a) Provide and protect open space for the social, environmental, and economic wellbeing of the County of Hawaii and its residents.
(b) Protect designated natural areas.
Land Use – Open Space - Policies
(a) Open space shall reflect and be in keeping with the goals, policies, and standards set forth in the other elements of the General Plan.

Land Use – Public Lands - Goals
(a) Utilize publicly owned lands in the best public interest and to the maximum benefit for the greatest number of people.
Land Use – Public Lands - Policies
(a) Encourage uses of public lands that will satisfy specific public needs, such as housing, recreation, open space and education.
Land Use – Public Lands - Standards
(a) Public lands with unique recreational and natural resources shall be maintained for public use.

Discussion: The project is consistent with the relevant goals, policies, and standards of the Land Use Chapter of the County of Hawai‘i General Plan. The Project is compatible with nearby uses, would enhance the quality of life of the Puakō community, and would protect important nearby natural resources.

The Hawai‘i County General Plan Land Use Pattern Allocation Guide (LUPAG). The LUPAG map component of the *General Plan* is a graphic representation of the Plan's goals, policies, and standards as well as of the physical relationship between land uses. It also establishes the basic urban and non-urban form for areas within the planned public and cultural facilities, public utilities and safety features, and transportation corridors. The project corridor is classified as Open Space and Resort Node in the LUPAG. Resort areas are intended for the "orderly development of the visitor industry", also benefiting the needs of residents and communities. LUPAG Open designated areas include both of lands zoned as Open by the County and lands in the State Land Use Conservation District.

Hawai‘i County Zoning. Most of the project site is located on TMK 6-9-001:017 in the Conservation District and therefore has no County of Hawai‘i zoning designation. Part is located on TMK 6-9-006:051 and is within the Urban District, zoned Open by the County, and designated Open in the Hawai‘i County General Plan.

3.6.3 Hawai‘i State Land Use Law

All land in the State of Hawai‘i is classified into one of four land use categories – Urban, Rural, Agricultural, or Conservation – by the State Land Use Commission, pursuant to Chapter 205, HRS. Some of the project site is located within the Urban District, and use as an emergency roadway is permitted. Most of the project site is in the State Land Use Conservation District, general subzone. HRS 205-2(e) describes the intended uses for Conservation Districts:

> "Conservation districts shall include areas necessary for protecting watersheds and water sources; preserving scenic and historic areas; providing park lands, wilderness, and beach reserves; conserving indigenous or endemic plants, fish, and wildlife, including those which are threatened or endangered; preventing floods and soil erosion; forestry; open space areas whose existing openness, natural condition, or present state of use, if

retained, would enhance the present or potential value of abutting or surrounding communities, or would maintain or enhance the conservation of natural or scenic resources; areas of value for recreational purposes; other related activities; and other permitted uses not detrimental to a multiple use conservation concept."

Hawai'i Administrative Rules (HAR) Title 11 specifies the intended uses of particular subzones. The General subzone generally is inclusive of uses specified for other subzones, and as such, the proposed use would be considered a P-6 Public Purpose Use, being a transportation system undertaken by a non-governmental entity which benefits the public and is consistent with the purpose of the conservation district (HAR Section 13-5-22). This use would require a board permit.

HAR Section 13-5-14 specifies:

(a) The objective of this subzone is to designate open space where specific conservation uses may not be defined, but where urban use would be premature.

(b) The (G) subzone shall encompass:

(1) Lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use; and

(2) Land suitable for farming, flower gardening, operation of nurseries or orchards, grazing; including facilities accessory to these uses when the facilities are compatible with the natural physical environment.

(c) Land uses permitted in the general (G) subzone are restricted to those listed in section 13-5-25.

The Conservation District Use Application, which was filed along with this EA, evaluates of the consistency of the project with the criteria of the Conservation District. Briefly, the following should be noted:

1. The proposed land use is consistent with the purpose of the Conservation District. The intended identified use is a Public Purpose use and is beneficial to the community and not detrimental to the environment. It is thus consistent with the objectives of the Conservation District.

2. The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur. The objective of the general subzone is to designate open space where specific conservation uses may not be defined, but where urban use would be premature. Use for an emergency road does not detract from this objective.

3. The proposed land use complies with provisions and guidelines contained in Chapter 205A, Hawaii Revised Statutes (HRS), entitled "Coastal Zone Management," where applicable. The expected consistency of the project with the SMA rules is discussed in Section 3.6.4 below. By the time the CDUA is filed, the Planning Department will have made a determination on SMA consistency.

4. The proposed land use will not cause substantial adverse impact to existing natural resources within the surrounding area, community or region. Because of the relatively minor nature of the project and the lack of native terrestrial ecosystems, threatened or endangered plant species, or affected water bodies, construction and use of the project corridor for an emergency road would not adversely impact natural resources. No effect on any coastal ecosystem will occur. The precautions for preventing any effects to water quality during construction should prevent any adverse impact on aquatic biological resources in coastal waters.
5. The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels. The low-key, gravel emergency road will connect two existing roads in an area of residence and park-uses and will be compatible with the surroundings.
6. The existing physical and environmental aspects of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, whichever is applicable. Although some kiawe trees will be removed from the dense tangle of kiawe behind Puakō, the project will not affect open space characteristics or natural beauty in any way.
7. Subdivision of land will not be utilized to increase the intensity of land uses in the Conservation District. Subdivision of the State land may be necessary to create the easement, but no intensification of use will occur.
8. The proposed land use will not be materially detrimental to the public health, safety and welfare. The project is meant to enhance public safety and welfare by providing a severely needed emergency road.

3.6.4 Special Management Area

The project corridor is situated within the County's Special Management Area (SMA), and will require an SMA Minor Permit, as indicated by consultation with the County of Hawai'i Planning Department (Appendix 4). <u>The project is currently in the process of applying for this permit.</u>

It is the applicant's belief that the proposed land use complies with provisions and guidelines contained in Chapter 205A, Hawai'i Revised Statutes (HRS), entitled Coastal Zone Management. The proposed emergency road would not restrict any shoreline uses such as hiking, fishing or water sports. Lateral pedestrian use of the shoreline area will not be impacted and there will be no effect on the public's access to or enjoyment of this shoreline area. Viewplanes to and from the shoreline would not be affected and the road would not be visually imposing or out of character. Historic sites and cultural uses have been properly assessed. It is expected that the project will not result in any impact on the biological or economic aspects of the coastal ecosystem. The project site is not situated over any major natural drainage system or water feature that would flow into the nearby coastal system. The property contains few native plants and none that are not extremely common. Flood Insurance Rate Maps (FIRM) delineate the project corridor as Zone X, outside the floodplain. According to County of Hawai'i Civil Defense, the project corridor is located within the tsunami inundation zone, but the purpose of the project is to provide evacuation capability and thus this setting is not inappropriate. In terms of beach protection, construction is over 200 feet mauka

of the shoreline setback area and would not affect any beaches nor adversely affect public use and recreation of the shoreline in this area. No effects on marine or groundwater will occur, and no impacts to marine resources are expected.

In summary, the proposed use would be consistent with Chapter 205A because it would not affect public access to recreational areas, historic resources, scenic and open space resources, coastal ecosystems, economic uses, or coastal hazards. The Special Management Area Assessment process, which occurs after the EA process, will include further examination of the conformity of the project with the SMA and the permitting needs.

PART 4: DETERMINATION

Based on the findings below, and in consideration of comments on the Draft EA, the Hawai‘i State Department of Land and Natural Resources (DLNR) has determined that the proposed project will not significantly alter the environment. This agency therefore determined that an Environmental Impact Statement is not warranted and has issued a Finding of No Significant Impact (FONSI).

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawai‘i Administrative Rules, outlines those factors agencies must consider when determining whether an action has significant effects:

1. *The proposed project will not involve an irrevocable commitment or loss or destruction of any natural or cultural resources.* No valuable natural or cultural resources would be committed or lost by the project. The project would not impact nearby archaeological resources.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* The proposed project expands and in no way curtails beneficial uses of the environment. The direct physical impact of the project is minor and may help to prevent serious safety hazards presented by natural disasters to the Puakō community.
3. *The proposed project will not conflict with the State's long-term environmental policies*. The State’s long-term environmental policies are set forth in Chapter 344, HRS. The broad goals of this policy are to conserve natural resources and enhance the quality of life. The project is minor, and fulfills aspects of these policies calling for an improved social environment. It is thus consistent with all elements of the State’s long-term environmental policies.
4. *The proposed project will not substantially affect the economic or social welfare of the community or State.* The project will benefit the social welfare of the community and State by alleviating significant risks to the Puakō community.
5. *The proposed project does not substantially affect public health in any detrimental way.* The proposed project will alleviate potential hazards to public health and safety.
6. *The proposed project will not involve substantial secondary impacts, such as population changes or effects on public facilities*. No secondary effects are expected to result from the

proposed action, which involves construction of an unpaved, gated roadway that would only be opened during an emergency.

7. *The proposed project will not involve a substantial degradation of environmental quality*. The project is minor and environmentally benign, and would thus not contribute to environmental degradation.
8. *The proposed project will not substantially affect any rare, threatened or endangered species of flora or fauna or habitat.* The project corridor supports overwhelmingly alien vegetation. Impacts to rare, threatened or endangered species of flora or fauna would not occur.
9. *The proposed project is not one which is individually limited but cumulatively may have considerable effect upon the environment or involves a commitment for larger actions.* The project is minor and is not related to other activities in the region in such a way as to produce adverse cumulative effects or involve a commitment for larger actions.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* Due to the character of the project no adverse effects on these resources would occur. Construction-phase air quality impacts, including fugitive dust emissions, would be mitigated.
11. *The project does not affect nor would it likely to be damaged as a result of being located in an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the project is located in an area with volcanic and seismic risk, the entire Island of Hawai‘i shares this risk, and the project is not imprudent to undertake. The project is intended to alleviate risks to the community presented by natural hazards.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* The shoreline several hundred feet makai of the project corridor is noted for its natural beauty in the Hawai‘i County General Plan. However, the project would not affect these viewplanes in any way.
13. *The project will not require substantial energy consumption*. Construction of the emergency road would require a minor expenditure of energy that may be compensated by energy savings during emergency use.

For the reasons above, the action would not have any significant effect in the context of Chapter 343, Hawai‘i Revised Statues and section 11-200-12 of the State Administrative Rules.

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ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 1

FEMA PRESS RELEASE CONCERNING OCTOBER 27, 2007 PUAKŌ WILDFIRE

FEMA INCIDENT REPORT

FEMA-R09_Oakland_CA_20071028_2030PDT_Puako Brush Fire_HI

INCIDENT REPORT: RIX-HI-01

TYPE OF INCIDENT: Puako Brush Fire

INCIDENT REPORT DATE & TIME: 10/28/07 2330 EDT

INCIDENT: This 1500 plus acre wild land fire near the town of Puako on the northwest side of the Big Island of Hawaii threatens 200 homes, 2 resort hotels, and three beach parks from which 400 persons have been evacuated. No homes have reported to have burned so far. The fire is within ¼ mile of the homes and thick black smoke has been affecting the population. The fire began early this morning as the result of several small fires burning together out of 8 or 9 that were started between 0300 and 0400 HST. Also threatened are primary electric transmission lines. The fire has also closed at times State route 19.

The temperature is 85, the humidity is 40% and the winds are erratic and are 15 to 18 miles per hour with gusts of 25 mph. The forecast for Monday October 29th is for continuing windy conditions. The fire is burning in very dry brush.

STATE & LOCAL ACTIONS: Hawaii County is responding to this fire with 4 helicopters, 4 dozers, 5 tankers, 4 brush trucks, 6 engines, 50 County firefighters, 16 Federal firefighters, and 15 County police officers.

POTENTIAL FEDERAL INVOLVEMENT: The State has requested a Fire Management Assistance Grant Program declaration. The fire was declared at 11:22 pm EDT on October 28 and is declaration number 2740.

REGIONAL CONTACTS: Tim McDonald, Region IX Fire Duty Liaison 510-712-0166

SOURCE OF INFORMATION: Hawaii State Civil Defense, Hawaii Department of Forestry and Wildlife, and USFS.

FOR ADDITIONAL INFORMATION: MERS Bothell MOC (800) 395-6042

NEMIS FILE NAME: HI-Puako Brush Fire-10-28-2007

ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 2

COMMUNICATIONS BETWEEN PCA AND MAUNA LANI RESORT, INC.

MAUNA LANI RESORT
Mauna Lani Resort (Operation), Inc.

June 22, 2005

Mr. George H. Robertson, President
Puako Community Association
P.O. Box 44345
Kawaihae, Hawaii 96743

Re: Emergency Escape Route – May 9th Letter

Dear Mr. Robertson:

I understand that a second emergency escape route has been a serious safety concern for the Puako Community Association (PCA) for a number of years, especially for those residents who live south of the Catholic Church and for those who frequent the Puako shorelines for fishing, swimming and other recreational or educational activities. Mauna Lani would like to cooperate and assist the PCA in its efforts to provide for a second escape route for its residents and the general public in a timely manner.

Mauna Lani Resort (Operation), Inc. (MLRO) is agreeable to allowing the Puako Community Association (PCA) vehicular access over its property to the Holoholokai Beach Park road via a gated entry point for an escape route roadway commencing at the southern end of the Puako Road through its state leased land under the following conditions:

1. Puako Community Association (PCA) shall be responsible for obtaining all required permits and approvals from the County and State for constructing the escape route roadway.
2. PCA shall contact and negotiate with Mauna Lani Resort Association (MLRA), Mauna Lani Service, Inc. (MLS) for access rights over the common area roadways of the Mauna Lani Resort.
3. PCA shall be responsible for construction and maintenance of the roadway. We understand it should be suitable for a car but unpaved.
4. There would be gates at either end of the roadway and provisions made to have them opened in strictly emergency situations by MLRA Security, police and fire department personnel and/or members of the PCA Safety Committee.
5. All costs for the escape route roadway and gate will be borne by the PCA and the County. MLRO will not be obligated to pay any money toward completion of the project or future maintenance and the PCA will

68-1310 Mauna Lani Drive, Suite 101 • Kohala Coast, Hawai'i 96743-9704
Telephone: (808) 885-6677 • Facsimile: (808) 885-6375

provide indemnification to MLRO as necessary. The PCA agrees to reimburse MLRO for any costs MLRO may incur in connection with this project, including any engineering or attorneys' fees to review plans and legal documents.

Please provide us with a proposed escape route plan for review, comment and approval as soon as it is prepared. In the interim, Mr. Akito Toba may be contacted if you have any questions, concerns or require further assistance in this matter.

Sincerely,

MAUNA LANI RESORT (OPERATION), INC.

Tetsuya Sonobe
President

/lms

cc: Akito Toba, Sr. Vice President – Mauna Lani Resort (Operation), Inc.
Ken Karahashi, President – Mauna Lani Service, Inc.
Sandra Patton, Executive Director – Mauna Lani Resort Association
Ed Teixeira, Vice Director, Hawaii State Civil Defense

PUAKO COMMUNITY ASSOCIATION
P.O. Box 44345
Kawaihae Hawaii 96743

July 27, 2005

Mr. Tetsuya Sonobe
President
Mauna Lani Resort (Operation), Inc.
68-1310 Mauna Lani Drive, Ste. 101
Kohala Coast, Hawaii 96743-9704

Dear Mr. Sonobe:

On behalf of the Puako Community Association (PCA), I thank you and you staff for granting the PCA permission to pursue approvals and construction of the escape road and gates in the vicinity of Paniau and Holoholokai Beach.

We will keep you informed as the project progresses and will provide copies of any relevant applications and permits.

Aloha,

George H. Robertson
President
Puako Community Association

Cc: Councilman Pete Hoffmann
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ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 3

ARCHAEOLOGICAL INVENTORY SURVEY

RC-0518

An Archaeological Inventory Survey for the Proposed Puakō Community Emergency Access Road
(TMKs: 3-6-9-01:17 por. and 3-6-9-06:51 por.)

Lālāmilo Ahupuaʻa
South Kohala District
Island of Hawaiʻi

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ARCHAEOLOGICAL, CULTURAL, AND HISTORICAL STUDIES

An Archaeological Inventory Survey for the Proposed Puakō Emergency Access Road (TMKs: 3-6-9-01:17 por. and 3-6-9-06:51 por.)

Lālāmilo Ahupuaʻa
South Kohala District
Island of Hawaiʻi

RECHTMAN CONSULTING

EXECUTIVE SUMMARY

At the request of the Puakō Community Association, Rechtman Consulting, LLC conducted an archaeological inventory survey for the proposed construction of a Puakō emergency access road running from Puakō Beach Drive to the Holoholo Kai Beach Park near the Mauna Lani Resort within Lālāmilo Ahupuaʻa, South Kohala District, Island of Hawaiʻi. The proposed development will cross portions of two parcels, TMKs: 3-6-9-01:17 and 3-6-9-06:51. The current project area consists of a roughly 30-meter wide by 200-meter long corridor The road is intended for use as an emergency escape route from Puakō in the case of wildfires. It will be gated and un-paved. The entire portion of the corridor on TMK: 3-6-9-06:51 has been previously bulldozed, and the southern end of the corridor on TMK: 3-6-9-01:17 has also been partially bulldozed. A paved pathway that leads from Holoholo Kai Beach Park to the Puakō petroglyph field passes the southern end of the corridor (Figure 7). The petroglyph field is well outside the boundaries of the current project area and will not be affected by the proposed development.

As a result of the current inventory survey one archaeological site (a trail; Site 26258) was recorded. Site 26258 consists of a roughly 25-meter long trail segment (within the current project area) that runs in a northeasterly/southwesterly direction across an *ʻaʻā* flow between the Holoholo Kai Beach Park access road and the paved pathway leading to the Puakō petroglyph field. The trail is barely discernable as a roughly 1.0 meter wide pathway that has been cleared of larger *ʻaʻā* cobbles, leaving an *ʻaʻā* clinker trail of small cobbles and gravels that is darker in appearance than the surrounding natural flow.

Site 26258 is considered significant under Criterion D for information it has presented relative to past land use within the current project area. Site 26258 has already been partially destroyed. Any further potential adverse impacts to Site 26258 resulting from the proposed emergency access road have been successfully mitigated by information collected during the current study. As such, no further work is the recommended treatment for this site.

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INTRODUCTION

At the request of the Puakō Community Association, Rechtman Consulting, LLC conducted an archaeological inventory survey for the proposed construction of a Puakō emergency access road running from Puakō Beach Drive to the Holoholo Kai Beach Park near the Mauna Lani Resort within Lālāmilo Ahupuaʻa, South Kohala District, Island of Hawaiʻi (Figure 1). The proposed development will cross portions of two parcels, TMKs: 3-6-9-01:17 and 3-6-9-06:51 (Figure 2). The road is intended for use as an emergency escape route from Puakō in the case of wildfires. It will be gated and un-paved. As a result of the current survey one archaeological site (a trail; Site 26258) was recorded. The current project was undertaken in compliance with both the historic preservation review process requirements (HAR 13§13-275-5) of the Department of Land and Natural Resources-State Historic Preservation Division (DLNR-SHPD) and the County of Hawaiʻi Planning Department, and is intended to be an element of an environmental assessment.

This report contains summary background information concerning the project area's physical setting, cultural contexts, previous archaeological work, and current survey expectations based on the previous work. Also presented is an explanation of the project's methods, detailed descriptions of the archaeological features encountered, interpretation and evaluation of those resources, and treatment recommendations for the documented site.

Project Area Description

The current project area consists of a roughly 30-meter wide by 200-meter long corridor that runs from the southern termination of Puakō Beach Drive to the access road leading to Holoholo Kai Beach Park (at Pauoa Bay near the Mauna Lani Resort golf course) (Figures 3, 4, and 5). Surveyors had marked the centerline of the corridor with nails and flagging tape prior to the fieldwork for this study. The corridor crosses portions of two state-owned parcels (TMKs: 3-6-9-01:17 and 3-6-9-06:51) within Lālāmilo Ahupuaʻa, South Kohala District, Island of Hawaiʻi (see Figures 1 and 2). The corridor is bounded along its *makai* edge by a modern rock wall and bulldozing along the boundary of TMK:3-6-9-01:27 (Figure 6), and along its *mauka* edge by undeveloped state-owned land. Terrain within the parcels consists of a mixed *pāhoehoe* and *ʻaʻā* lava flows that originated from Mauna Loa Volcano 3,000 to 5,000 years ago (Wolf and Morris 1996). This flow contains very little soil development. The project area is at an elevation of roughly 20 feet above sea level. The area receives an average annual rainfall of less than 10 inches, and has a mean temperature of 78 degrees Fahrenheit (Kennedy 1980). Vegetation consists primarily of a dense growth of *kiawe* (*Prosopis pallida*) and grasses. An anchailine pond that fills at high tide, but empties at low tide, is present on TMK: 3-6-9-01:17 within the corridor. The entire portion of the corridor on TMK: 3-6-9-06:51 has been previously bulldozed, and the southern end of the corridor on TMK: 3-6-9-01:17 has also been partially bulldozed. A paved pathway that leads from Holoholo Kai Beach Park to the Puakō petroglyph field passes the southern end of the corridor (Figure 7). The petroglyph field is well outside the boundaries of the current project area and will not be affected by the proposed development.

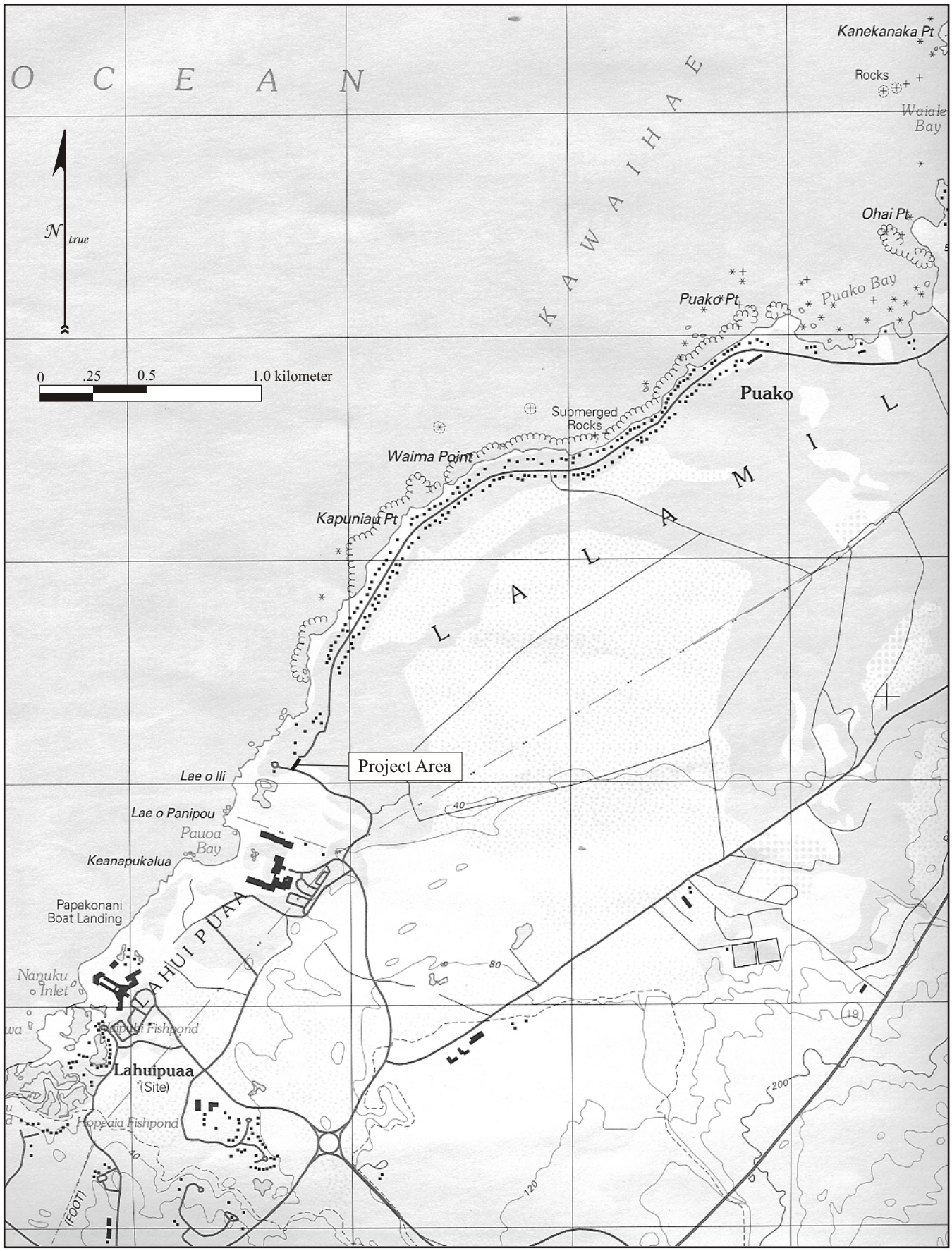

Figure 1. Project area location (portion of U.S.G.S 7.5 minute Puu Hinai quadrangle, 1997).

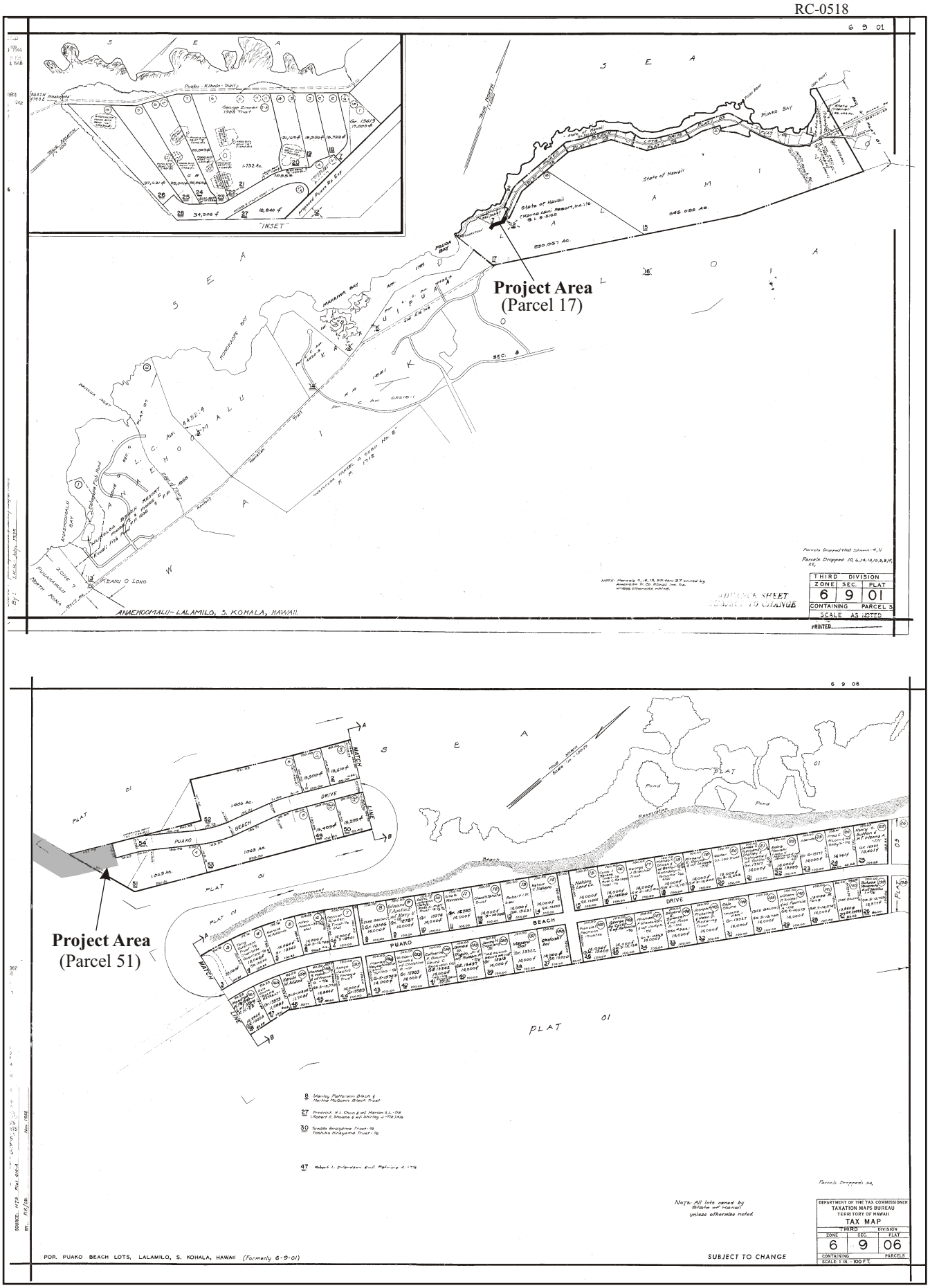

Figure 2. Tax Map Keys (TMKs): 3-6-9-01 and 3-6-9-06 showing the current project area (portions of parcels 17 and 51).

Figure 3. Southern termination of Puakō Beach Drive, view to south.

Figure 4. Access road leading to Holoholo Kai Beach Park, view to northeast toward project area.

Figure 5. Aerial photograph of project area showing the proposed road centerline.

Figure 6. Modern rock wall along the boundary of TMK:3-6-9-01:27, view to northwest.

Figure 7. Paved pathway leading to the Puakō petroglyph field, view to west

BACKGROUND

To generate set of expectations regarding the nature of archaeological resources that might be encountered on the study parcel, and to establish an environment within which to assess the significance of any such resources, previous archaeological studies relative to the project area and a general historical context for the region are summarized.

Previous Archaeological Research

Multiple archaeological studies have been conducted in the Puakō area and in the surrounding *ahupuaʻa* from Kawaihae, south to Anaehoʻomalu Bay (Table 1). These investigations vary from general reconnaissance level surveys to intensive data recovery efforts and have identified a range of archaeological and historical site types in this coastal setting. Sites types recorded in the coastal portions of Puakō consist of caves (lava tubes), petroglyphs, cairns, trails, rock and cave shelters, refuge caves, burials, a *holua* slide, and features associated with both temporary and permanent habitation including: house platforms, overhangs, terraces, modified outcrops, paved areas, U-shape enclosures, sinkholes, walls, and rubble excavation areas. Coastal and inland (*mauka*/*makai*) trail networks have been documented throughout the South Kohala and North Kona Districts and were most likely used for coastal travel between *ahupuaʻa* and for resource exchange between the coastal areas and the upland agricultural fields. The trade network established would allow for the exchange of marine resources for the agricultural products cultivated from the higher (upland agricultural zone) elevations including the extensive agricultural complexes of Waimea and Poʻopoʻo near Keamuku (Jensen 1994:12). The absence or minimal presence of agricultural features in this coastal zone suggests an emphasis on marine exploitation.

Table 1. Previous Archaeological-Historical Investigations.

Year	*Author*	*Ahupuaʻa*	*Type of Study*
1930	Reinecke	General	Reconnaissance
n.d.	Emory	Lālāmilo	Excavation
1964	Smart	Lālāmilo	Excavation
1971	Ching	General	Intensive survey
1972	Rosendahl	Waikōloa, Lālāmilo	Excavation
1972	Rosendahl	Lālāmilo	Reconnaissance
1973	Barrera	General	Intensive survey
1975	Kirch	Waikōloa	Intensive survey, excavation
1979	Kirch	Lālāmilo	Excavation
1980	Kennedy	Lālāmilo	Intensive survey
1982	Kaschko and Rosendahl	Kawaihae 2nd, ʻŌuli	Reconnaissance, historical
1982	Tomonari-Tuggle	Lālāmilo	Reconnaissance
1983	Rosendahl	ʻŌuli	Intensive survey
1983	Clark and Kirch	General	Intensive survey
1984	Welch	Lālāmilo	Intensive survey
1985	Rosendahl	Kukio 1st	Reconnaissance
1988	Welch	Lālāmilo	Intensive survey, excavation
1989	Welch	Lālāmilo	Intensive survey, excavation
1989	Jensen	Waikōloa	Intensive survey
1989	Jensen	ʻAnaehoʻomalu	Excavation
1989	Jensen	Waikoloa	Intensive survey
1990	Carlson and Rosendahl	Kawaihae 2nd	Intensive survey
1991	Jensen	Waikōloa	Excavation
1992	Dunn and Rosendahl	Lālāmilo	Intensive survey, excavation
1992	Burgett et al.	Lālāmilo	Intensive survey, excavation
1993	Greene	Kawaihae	Arch./Historical Assessment
1993	Graves	ʻŌuli	Data recovery

continued on next page

Table 1 continued.

Year	*Author*	*Ahupua'a*	*Type of Study*
1993	Boudreau and Graves	Lālāmilo	Data recovery
1993	Maly and Rosendahl	'Ōuli	Archaeological Site Preservation Plan and Historical Overview
1994	Landrum and Williams	'Anaeho'omalu	Archaeological
1995	Nees and Williams	'Anaeho'omalu	Archaeological
1996	Ogden	'Anaeho'omalu	Archaeological Site Preservation Plan
2002	Dougherty and Rechtman	Lālāmilo	Archaeological and Cultural Assessment

These studies have also established settlement patterns and proposed chronological constructs of this area and provide dates, established primarily through hydration rind dating techniques, for initial temporary coastal occupation, permanent coastal and upland habitation, and the population decline during the Postcontact Period. Though these dates correlate with the existing settlement models and chronology, the dating technique used has been questioned because of the volcanic rind formation variables that include temperature, moisture, and the chemical composition of the sample in addition to the difficulty of accurately measuring the hydration rind (Olson 1983).

The Puakō Petroglyph Archaeological District (SIHP Site No. 4713), located northeast of current project area, was nominated to the National Register of Historic Places by Myra Tomonari-Tuggle and David Tuggle on behalf of the Waimea Hawaiian Civic Club and Mauna Lani Resort (Dunn 1992, Appendix B:B-6). The site was listed on the State of Hawaii Register of Historic Places in 1982, and in April of 1983 it was listed on the National Register. The site area was formally recorded by the Bishop Museum in 1964 (Kennedy 1980) and was noted as "being one of the largest fields of its kind in the Hawaiian Islands" (Dunn 1992, Appendix B:B-4); the petroglyph area consists of three major groupings of more than 3,000 incised figures and represents some of the oldest images in the Hawaiian Islands.

Two of the previous studies were conducted adjacent to the current project area. These are an inventory survey for a previously completed extension to Puakō Beach Drive (Burgett and Rosendahl 1990; Dunn and Rosendahl 1992), and work conducted at the Paniau parcel (TMK: 3-6-9-01:27) located directly *makai* of the current survey area (Kennedy 1980). Twenty-five sites containing a total of 75 features were recorded within the Puakō Beach Drive extension corridor (located at the northern termination of the current survey corridor; Dunn and Rosendahl 1992). Twenty-four sites containing a total of 47 features were recorded on the Paniau parcel (Dunn and Rosendahl 1992). Formal feature types recorded during these studies included caves, petroglyphs, terraces, modified outcrops, overhangs, modified sinks, *pāhoehoe* excavations, mounds, walls and enclosures. Most of these previously recorded sites were interpreted as being used for or related to Precontact coastal habitation (Dunn and Rosendahl 1992). Furthermore, Jensen (1992) reports that radiocarbon age determinations from the Paniau parcel suggest that primary costal habitation occurred between A.D. 1640 and A.D.1890.

Cultural-Historical Contexts

A generalized Cultural-Historical context for Hawai'i Island, South Kohala District, and the specific study *ahupua'a*, along with the expected settlement patterns for the area are presented in order to assess the current project area expectations.

A Generalized Model of Hawaiian Prehistory

The generalized cultural sequence that follows is based on Kirch's (1985) model. The Settlement or Colonization Period is believed to have occurred in Hawai'i between AD 300–600 from the southern Marquesas Islands. This was a period of great exploitation and environmental modification, when early Hawaiian farmers developed new subsistence strategies by adapting their familiar patterns and traditional tools to their new environment (Kirch 1985; Pogue 1978). Their ancient and ingrained philosophy of life

tied them to their environment and kept order. Order was further assured by the conical clan principle of genealogical seniority (Kirch 1984). According to Fornander (1969), the Hawaiians brought from their homeland certain universal Polynesian customs: the major gods *Kane, Ku*, and *Lono*; the *kapu* system of law and order; cities of refuge; the *'aumakua* concept; various superstitions; and the concept of *mana*.

The Development Period (A.D. 600–1100) brought about a uniquely Hawaiian culture. The portable artifacts found in archaeological sites of this period reflect not only an evolution of the traditional tools, but some distinctly Hawaiian inventions. The adze (*ko'i*) evolved from the typical Polynesian variations of plano-convex, trapezoidal, and reverse-triangular cross-section to a very standard Hawaiian rectangular quadrangular tanged adze. A few areas in Hawai'i produced quality basalt for adze production. Mauna Kea on the island of Hawai'i was a well-known adze quarry. The two-piece fishhook and the octopus-lure breadloaf sinker are Hawaiian inventions of this period, as are *'ulu maika* stones and *lei niho palaoa*. The later was a status item worn by those of high rank, indicating a trend toward greater status differentiation (Kirch 1985).

The Expansion Period (A.D. 1100–1650) is characterized by the greatest social stratification, major socioeconomic changes, and intensive land modification. Most of the ecologically favorable zones of the windward and coastal regions of all major islands were settled and the more marginal leeward areas were being developed. Early dates from leeward Kohala (Kapa'anui) were reported by Dunn and Rosendahl (1989); these sites are believed to have been temporary campsites (Wulzen and Goodfellow 1995). The greatest population growth occurred during the Expansion Period. Subsistence patterns intensified as crop farming evolved into large irrigated field systems and expanded into the marginal dryland areas. The *loko* or fishpond aquaculture flourished during this period (Bellwood 1978; Kirch 1985).

It was during the Expansion Period that a second major migration settled in Hawai'i, this time from Tahiti in the Society Islands. According to Kamakau (1976) the *kahuna* Pā'ao settled in the islands during the 13th century. Pa'ao was the keeper of the god Ku'ka'ilimoku, who had fought bitterly with his older brother, the high priest Lonopele. After much tragedy on both sides, Pa'ao escaped Lonopele's wrath by fleeing in a canoe. Kamakau (1991:100–102) told the following story in 1866:

> Puna on Hawai'i Island was the first land reached by Pa'ao, and here in Puna he built his first *heiau* for his god Aha'ula and named it Aha'ula [Waha'ula]. It was a *luakini*. From Puna, Pa'ao went on to land in Kohala, at Pu'uepa. He built a *heiau* there called Mo'okini, a *luakini*. It is thought that Pa'ao came to Hawai'i in the time of the *ali'i* La'au because Pili ruled as *mo'i* after La'au. You will see Pili there in the line of succession, the *mo'o kū'auhau*, of Hanala'anui. It was said that Hawai'i Island was without a chief, and so a chief was brought from Kahiki; this is according to chiefly genealogies. Hawai'i Island had been without a chief for a long time, and the chiefs of Hawai'i were *ali'i maka'āinana* or just commoners. There were seventeen generations during which Hawai'i Island was without chiefs—some eight hundred years.

There are several versions of this story that are discussed by Beckwith (1976), including the version where Mo'okini and Kaluawilinau, two *kāhuna* of Moikeha, decide to stay on at Kohala. The bones of the *kahuna* Pa'ao are said to be deposited in a burial cave in Kohala in Pu'uwepa [possibly Pu'uepa?] (Kamakau 1964:41).

The concept of the *ahupua'a* was established during the A.D. 1400s (Kirch 1985), adding another component to a then well-stratified society. This land unit became the equivalent of a local community, with its own social, economic, and political significance. *Ahupua'a* were ruled by *ali'i 'ai ahupua'a* or lesser chiefs; who, for the most part, had complete autonomy over this generally economically self-supporting piece of land, which was managed by a *konohiki*. *Ahupua'a* were usually wedge or pie-shaped, incorporating all of the eco-zones from the mountains to the sea and for several hundred yards beyond the shore, assuring a diverse subsistence resource base (Hommon 1986).

The *ali'i* and the *maka'āinana* (commoners) were not confined to the boundaries of the *ahupua'a*; when there was a perceived need, they also shared with their neighbor *ahupua'a ohana* (Hono-ko-hou 1974). The *ahupua'a* was further divided into smaller sections such as the *'ili, mo'o'aina, pauku'aina,*

kihapai, koele, hakuone, and *kuakua* (Hommon 1986, Pogue 1978). The chiefs of these land units gave their allegiance to a territorial chief or *mo'i* (king). *Heiau* building flourished during this period as religion became more complex and embedded in a sociopolitical climate of territorial competition. Monumental architecture, such as *heiau*, "played a key role as visual markers of chiefly dominance" (Kirch 1990:206).

The Proto-Historic Period (A.D. 1650–1795) is marked by both intensification and stress. Wars occurred between intra-island and inter-island polities. Sometime between A.D. 1736 and 1758, in the reign of Kalaniopu'u, Kamehameha I was born in the *ahupua'a* of Kokoiki, North Kohala near the Mo'okini Heiau [there is some controversy about his birth year, see Kamakau 1992:66–68]. It has been related that at the time of his birth an army was encamped on the leeward Kohala shore, between the *ahupua'a* of Koai'e and Pu'uwepa, preparing for an attack on Maui (Kamakau 1964:67; Tomonari-Tuggle 1988:I-57). The birth event is said to have occurred on a stormy night of rain, thunder, and lightning, signified the night before by a very bright, ominous star, thought by some to be Halley's comet [this is also controversial] (Kamakau 1992). Kamehameha's ancestral homeland was in Halawa, North Kohala (Williams 1919).

This period was one of continual conquest by the reigning *ali'i*. Ke'eaumoku, son of Keawepoepoe, set up a fort at Pololu and Honokane; he was attacked there by Kalaniopu'u, so he moved to Maui. About A.D. 1759 Kalani'opu'u conquered East Maui, defeating his wife's brother, the Maui king Kamehamehanui, by using Hana's prominent Pu'u Kau'iki as his fortress. He appointed one of his Hawai'i chiefs, Puna, as governor of Hana and Kipahulu. Kahekili became king of Maui in A.D. 1766 when Kamehamehanui died following an illness. Ke'eaumoku took his widow, Namahana, a cousin of Kamehameha I, as his wife. Their daughter, Ka'ahumanu, the future favorite wife of Kamehameha I, was born in a cave at the base of Pu'u Kau'iki, Hana, Maui in A.D. 1768 (Kamakau 1992). In A.D. 1775 Kalani'opu'u and his Hana forces raided and destroyed the neighboring Kaupo district, then launched several more raids on Molokai, Lanai, Kaho'olawe, and parts of West Maui. It was at the battle of Kalaeoka'ilio that Kamehameha, a favorite of Kalaniopu'u, was first recognized as a great warrior and given the name of Pai'ea (hard-shelled crab) by the Maui chiefs and warriors (Kamakau 1992). During the battles between Kalaniopu'u and Kahekili (1777–1779), Ka'ahumanu and her parents left Maui to live on the island of Hawai'i (Kamakau 1992).

History After Contact

Captain James Cook landed in the Hawaiian Islands on January 18, 1778. Ten months later, on a return trip to Hawaiian waters, Kalaniopu'u, who was at war with Kahekili, visited Cook on board the *Resolution* off the East coast of Maui. Kamehameha observed this meeting, but chose not to participate. The following January [1779], Cook and Kalaniopu'u met again in Kealakekua Bay and exchanged gifts. In February, Cook set sail; however, a severe storm off the Kohala coast damaged a mast and they had to return to Kealakekua. Cook's return occurred at an inopportune time, and this misfortune cost him his life (Kuykendall and Day 1976).

Around A.D. 1780 Kalaniopu'u proclaimed that his son Kiwalao would be his successor, and he gave the guardianship of the war god Ku'ka'ilimoku to Kamehameha. Kamehameha and a few other chiefs were concerned about their land claims, which Kiwalao did not seem to honor, so after usurping Kiwalao's authority with a sacrificial ritual, Kamehameha retreated to his district of Kohala. While in Kohala, Kamehameha farmed the land, growing taro and sweet potatoes (Handy and Handy 1972). After Kalani'opu'u died in A.D. 1782 civil war broke out: Kiwalao was killed. The wars between Maui and Hawaii continued until A.D. 1795 (Kuykendall and Day 1976; Handy and Handy 1972).

In A.D. 1790 two American vessels, the *Eleanora* and *Fair American*, were in Hawaiian waters. Following an altercation between his crew and natives, the Captain of the *Eleanora* massacred more than 100 natives at Olowalu [Maui], then sailed away leaving one of its crew, John Young, on land. The other vessel, the *Fair American,* was captured off the west Hawai'i coast and its crew killed except for one member, Issac Davis. Kamehameha also observed this but did not participate, although he did prevent Young and Davis from leaving. He also kept the vessel as part of his fleet. Young eventually became governor of the island of Hawai'i. By 1796 Kamehameha had conquered all the island kingdoms except Kauai. It wasn't until 1810, when Kaumuali'i of Kauai gave his allegiance to Kamehameha, that the Hawaiian Islands were unified under one ruler (Kuykendall and Day 1976).

Demographic trends during this period indicate population reduction in some areas, due to war and disease, yet increases in others, with relatively little change in material culture. However, there was a continued trend toward craft and status specialization, intensification of agriculture, *ali'i* controlled aquaculture, upland residential sites, and the enhancement of traditional oral history. The Kū cult, *luakini heiau*, and the *kapu* system were at their peaks, although western influence was already altering the cultural fabric of the Islands (Kirch 1985; Kent 1983). Foreigners had introduced the concept of trade for profit, and by the time Kamehameha I had conquered O'ahu, Maui and Moloka'i, in 1795, the women of Hawai'i had learned the profitable concept of prostitution (Kent 1983). This marked the end of the Proto-Historic Period and the end of an era of uniquely Hawaiian culture.

Hawai'i's culture and economy continued to change drastically as capitalism and industry established a firm foothold. The sandalwood (*Santalum ellipticum*) trade, established by Euro-Americans in 1790 and turned into a viable commercial enterprise by 1805 (Oliver 1961), was flourishing by 1810. This added to the breakdown of the traditional subsistence system, as farmers and fishermen were ordered to spend most of their time logging, resulting in food shortages and famine that led to a population decline. Kamehameha did manage to maintain some control over the trade (Kuykendall and Day 1976; Kent 1983).

Kamehameha I died on May 8, 1819 in Kailua-Kona, and once again the culture of Hawai'i was to change radically. Six months after his death, his son and successor, Liholiho (Kamehameha II), met with *kuhina nui,* Ka'ahumanu, and a council of chiefs and chiefesses at Kawaihae. His advisors, which included the *kahuna* Hewahewa, convinced him to abolish the *kapu* system. He signified his agreement by sitting down and eating with his mother Keopulani, breaking the *'ai kapu* (Oliver 1961; Kuykendall and Day 1976; Kamakau 1992).

Liholiho's cousin, Kekuaokalani, caretaker of the war god *Ku-Kailimoku*, disagreed and revolted. By December of 1819 the revolution was quelled. Kamehameha II sent edicts throughout the kingdom renouncing the ancient state religion, ordering the destruction of the *heiau* images, and ordering that the *heiau* structures be destroyed or abandoned and left to deteriorate. He did, however, allow the personal family religion, the '*aumakua* worship, to continue (Oliver 1961; Kamakau 1992).

In October of 1819, seventeen Protestant missionaries set sail from Boston to Hawai'i. They arrived in Kailua-Kona on March 30, 1820 to a society with a religious void to fill. Many of the *ali'i,* who were already exposed to western material culture, welcomed the opportunity to become educated in a western style and adopt their dress and religion. Soon they were rewarding their teachers with land and positions in the Hawaiian government. During this period, the sandalwood trade was wreaking havoc on the commoners, who were weakening with the heavy production, exposure, and famine just to fill the coffers of the *ali'i* who were no longer under any traditional constraints (Oliver 1961; Kuykendall and Day 1976). On a stopover in the Kohala district Ellis wrote:

> About eleven at night we reached Towaihae [Kawaihae], where we were kindly received by Mr. Young. . . . Before daylight on the 22nd, we were roused by vast multitudes of people passing through the district from Waimea with sandal-wood, which had been cut in the adjacent mountains for Karaimoku, by the people of Waimea, and which the people of Kohala, as far as the north point, had been ordered to bring down to his storehouse on the beach, for the purpose of its being shipped to Oahu. There were between two and three thousand men, carrying each from one to six pieces of sandal-wood, according to their size and weight. It was generally tied on their backs by bands of ti leaves, passed over the shoulders and under the arms, and fastened across their breasts. (Kuykendall and Day 1976:42, 43; Ellis 1984:397)

The lack of control of the sandalwood trade was to soon lead to the first Hawaiian national debt as promissory notes and levies were initiated by American traders and enforced by American warships (Oliver 1961). The Hawaiian culture was well on its way towards Western assimilation as industry in Hawai'i went from the sandalwood trade, to a short-lived whaling industry, to the more lucrative, but environmentally destructive sugar industry. The windward portions of Kohala became a center of sugarcane production, although sugarcane cultivation in Kohala had its origins in prehistory.

Pukui (1983) cites two proverbs that reference both Kohala and sugarcane. She provides an explanation and notes that Hawaiian proverbs have layers of meaning that are best left to the imagination of the reader:

> *He paʻa kō kea no Kohala, e kole ai ka waha ke ʻai*
> A resistant white sugar cane of Kohala that injures the mouth when eaten.

Pukui explains this proverb as follows:

> A person that one does not tamper with. This was the retort of Pupukea, a Hawaiʻi chief, when the Maui chief Makakuikalani made fun of his small stature. It was later used in praise of the warriors of Kohala, who were known for valor (1983:95).

> *I ʻike ʻia no o Kohala i ka pae kō, a o ka pae kō ia kole ai ka waha.*
> One can recognize Kohala by her rows of sugar cane which can make the mouth raw when chewed.

Pukui interprets this proverb as follows:

> When one wanted to fight a Kohala warrior, he would have to be a very good warrior to succeed. Kohala men were vigorous, brave, and strong (1983:127).

Sugarcane (*Saccharum officinarum*) was a Polynesian introduction and served a variety of uses. The *kō kea* or white cane was the most common, usually planted near Hawaiian homes for medicinal purposes, and to counteract bad tastes (Handy and Handy 1972:185). Sugarcane was a snack, condiment, famine food; fed to nursing babies, and helped to strengthen children's teeth by chewing on it (Handy and Handy 1972:187). It was used to thatch houses when *pili* grass (*Heteropogon contortus*) or *lau hala* (*Pandanus odortissimus*) were not abundant (Malo 1903). Sugarcane was also used in relation to taro and sweet potato. Handy and Handy (1972:186) explain:

> In wet-taro farming, cane was planted along the embankments separating the flooded terraces and flats. In dry-taro and sweet-potato fields on the sloping *kula* or in the lower forest zone, cane was planted as hedges along the lines of stone and rubbish thrown up between the fields. Thus it helped the planter to utilize to the maximum his soil and water, and acted as a windbreak against the gusty breezes which blow in most valley bottoms, along the coasts, and on the uplands where taro is grown.

Sugarcane was grown on all islands, and when Cook arrived he wrote of seeing sugarcane plantations. The Chinese on Lānaʻi are credited with producing sugar first, as early as 1802. However, it was not until 1835 that sugar became established commercially, replacing the waning sandalwood industry (Oliver 1961, Kuykendall and Day 1976).

Puakō and Lālāmilo Ahupuaʻa

The name Puakō literally translates as "sugarcane blossom" (Pukui et al. 1974). Early land use in the coastal Puakō area focused primarily on marine resource procurement with an emphasis on salt production. The legends surrounding the naming of Puakō also mention salt production, which was documented by early explorers: "The next morning, Puakō rose early and began carrying sea water to the salt ponds for making salt" (Fornander 1916-1917 Vol. 4-3:560-568). Prior to the *Māhele*, present day Lālāmilo Ahupuaʻa was referred to as Waikōloa Iki. Dunn (1992) elaborates on the place names of the area:

> Early references refer to the area of Lalamilo as "Puako"; the name of Puako today refers to a small village on the coast of Lalamilo. Land Index records of the mid-1800s reveal that Lalamilo was the name of an *ʻili* in Puako, but a 1928 Territory of Hawaii map and later references show the *ahupuaʻa* is named Lalamilo. Whether the *ahupuaʻa* of Puako got absorbed into other *ahupuaʻa* and the *ʻili* of Lalamilo became an *ahupuaʻa* itself, or the names just got switched around is unclear (Dunn 1992, Appendix B:B-1).

By the middle of the nineteenth century the ever-growing population of Westerners forced socioeconomic and demographic changes that promoted the establishment of a Euro-American style of land ownership, and the Great *Māhele* became the vehicle for determining ownership of native lands. During this period, termed the Legacy of the Great *Māhele* (1848-1899), land interests of the King (Kamehameha III), the high-ranking chiefs, and the low-ranking chiefs, the *konohiki,* were defined. The chiefs and *konohiki* were required to present their claims to the Land Commission to receive awards for lands provided to them by Kamehameha III. They were also required to provide commutations to the government in order to receive royal patents on their awards. The lands were identified by name only, with the understanding that the ancient boundaries would prevail until the land could be surveyed. This process expedited the work of the Land Commission (Chinen 1961:13).

During the *Māhele* all lands were placed in one of three categories: Crown Lands (for the occupant of the throne), Government Lands, and *Konohiki* Lands. All three types of land were subject to the rights of the native tenants therein. In 1862, the Commission of Boundaries (Boundary Commission) was established in the Kingdom of Hawai‘i to legally set the boundaries of all the *ahupua‘a* that had been awarded as a part of the *Māhele*. Subsequently, in 1874, the Commissioners of Boundaries was authorized to certify the boundaries for lands brought before them. The primary informants for the boundary descriptions were old native residents of the lands, many of which had also been claimants for *kuleana* during the *Māhele*. This information was collected primarily between A.D. 1873 and 1885 and was usually given in Hawaiian and transcribed in English as they occurred.

As a result of the *Māhele*, the *ahupua‘a* of Lālālimo was awarded to Lunalilo (Kamehameha V), and Land Commission records indicate that four residential *kuleana* were awarded along the coast in Puakō (Maly 1999):

> **LCA 8559-B** to William Charles Lunalilo – *Ili* of Puako and Lalamilo, *Kalana* of Waimea. (Foreign Testimony Vol. 16:81)
>
> **LCA 3736** to Petero Wahakane – I have three places to describe: at Puako is a house lot, at Waimea is a house lot, at Waipio are 17 taro pond fields (*loi*), District 6, Hawaii. (Native Register Vol. 8:52)
>
> **LCA 3758** to ‘Akahi (w.) – I have a house lot at Puako, in Waimea, at the shore. It is 16 fathoms long and 16 fathoms wide. It has been surrounded with a stone wall from ancient times. (Native Register Vol. 8:52)
>
> **LCA 4099** to Keawekuloa, Kaholoaa & Kahumoku – Here is our claim for a lot at Puako, Waimea, Hawaii. It is 40 fathoms by 40 fathoms. Within this lot are 5 houses, 7 coconut trees, 2 hala trees and 5 salt making ponds. (Native Register Vol. 8:384)
>
> **LCA 4102** to Kamahiai – I hereby describe to you my house lot a Puako… The circumference is 80 fathoms, it is for you to affirm. I am your obedient servant. (Native Register Vol. 8:65)

Land use in the early 1900s in Lālāmilo centered primarily on sugar plantation operations. By 1902, John and Robert Hind and W. Vredenburg formed the Puako Sugar Plantation on lands they leased and purchased from Parker Ranch (Maly 1999). A wharf was constructed to facilitate the shipment of materials for mill construction (Puako Historical Society 2000), and a rail line connected the mill operations with field operations. Improvements to the plantation included the construction of an approximately eight-mile long section of flume that carried water from Waimea Stream to the plantation. However, due to micro-climatic changes in the upland regionsm, and abnormally dry weather, the stream dried up prior to the flume’s completion. As a result, the sugar company’s venture failed by 1914. Hind continued to foster other economic developments along the coastal portions of Lālāmilo including “extending his ranching interests (a *kiawe* feed lot and cattle shipping operation), honey making, and making charcoal on his lease lands” (Maly 1999:118).

In 1937, Annabelle Nakoʻolaniohakau Low-Ruddle and her husband Albert traded some of their Hilo lands for roughly 7.5 acres of government land directly *makai* of the current project area (Grant No. 10559; TMK: 3-6-9-01:27; the Paniau parcel). Because of the parcel's close proximity to "Ka lae o Kapaniau" (Paniau Point), the parcel became known as Paniau (Maly 1999:126). The Ruddles cleared portions of the property and built two houses near the shore (Puakō Historical Society 2000). Initial access to the area was by boat, but during World War II, the U. S. Marine Corps bulldozed a coastal road through Puakō, allowing for the first vehicular access to Paniau. The Ruddle family purchased an army jeep after the war and they were the first family to travel the roads by vehicle (Puakō Historical Society 2000).

The United States Military also used this coastal area, lands further north around Hapuna, and the upland areas of Waikōloa for World War II training exercises. Use of the area included the construction of "many small defensive outposts along ridges and elsewhere" (Jensen 1994:14). Modern use of the Puakō area consists mostly of residential and resort development with a few integrated commercial ventures.

AHUPUAʻA SETTLEMENT PATTERNS AND PROJECT AREA EXPECTATIONS

The initial occupation of the coastal segments of western Hawaiʻi Island "probably occurred c. A.D. 600 at Anaehoʻomalu and was restricted to temporary habitation features" (Jensen 1994:10). The early populations in this area would have most likely remained relatively small in numbers and focused primarily upon marine resource procurement. This coastal population remained relatively stable until c. A.D. 1200 when population expansion occurred and populations may have become more sedentary and expanded into multiple environmental zones (upland agricultural elevations). The population of the coastal area continued to expand through c. A.D. 1500 with more permanent habitation settlements in both the coastal and upland settings. Permanent habitations in both the coastal and upland areas continued though A.D. 1650 and were evidenced by the numerous permanent habitation features at Kalahuipuaʻa. The population of western Hawaiʻi Island decreased dramatically in the Postcontact Period; population decrease in outlying rural areas resulted from both the introduction of European diseases and from the migration toward more central populations centers (Allen 2001).

Given the results of previous work in coastal Puakō, it is expected that archaeological resources present within the current survey corridor may include Precontact habitation associated features consisting of platforms, caves, overhangs, enclosures, and trails. Burials, if present, may be discovered within platforms or caves. Agricultural remains could be present in the form of mounds, enclosures, or modified depressions. The extensive amount of modern development that has taken place in the vicinity of the current project area has likely had a negative impact on any archaeological resources that are present.

FIELDWORK

On October 9, 2007 Matthew R. Clark, B.A. and Christopher S. Hand, B.A., Ashton K. Dirks, B.A., and Michael K. Vitousek, B.A. conducted an intensive on-foot archaeological survey of the survey corridor under the direction of Robert B, Rechtman, Ph.D.

Methods

The survey corridor was thoroughly inspected utilizing north/south pedestrian transects with fieldworkers spaced at ten-meter intervals. When archaeological resources were encountered, they were plotted on a map of the proposed development area using a Garmin 76s handheld GPS technology (with sub five-meter accuracy), and then cleared of vegetation, mapped in detail, photographed, and described using standardized site record forms.

Findings

As a result of the current inventory survey a single archaeological site (Site 26258; a trail) was recorded at the southern end of the survey corridor (Figure 8). A detailed description of the recorded site follows below.

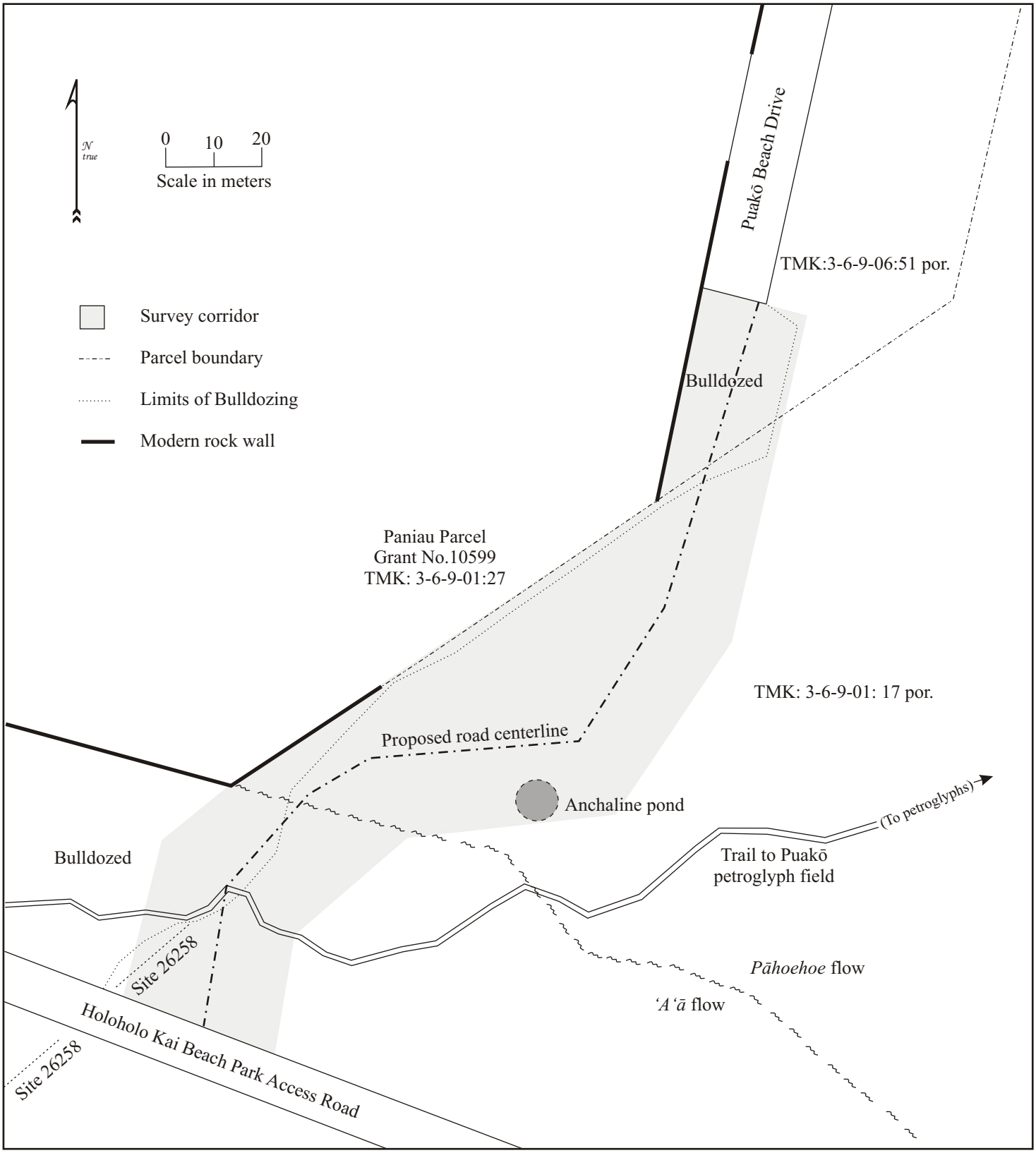

Figure 8. Site location map.

SIHP Site 26258

Site 26258 consists of a roughly 25-meter long trail segment (within the current project area) that runs in a northeasterly/southwesterly direction across an *ʻaʻā* flow between the Holoholo Kai Beach Park access road and the paved pathway leading to the Puakō petroglyph field (see Figure 8). The trail is barely discernable as a roughly 1.0 meter wide pathway that has been cleared of larger *ʻaʻā* cobbles, leaving an *ʻaʻā* clinker trail of small cobbles and gravels that is darker in appearance than the surrounding natural flow (Figures 9 and 10). Identification of this trail segment was made difficult by the modern bulldozing and paving that had occurred at both its ends, and by bulldozer push that has tumbled onto its surface from a rough bulldozer cut along its *makai* edge. The areas northeast and southwest of the pavement at either end of Site 26258 were thoroughly examined for a continuation of the trail. To the northeast, no further continuation of the trail was identified (it is likely that the trail once continued to the coast at Paniau prior to the development of that parcel). To the southwest, Site 26258 continues on the other side of the Holoholo Kai Beach Park access road for roughly 30 meters between the road and bulldozing along the Mauna Lani Resort Golf Course (Figure 11).

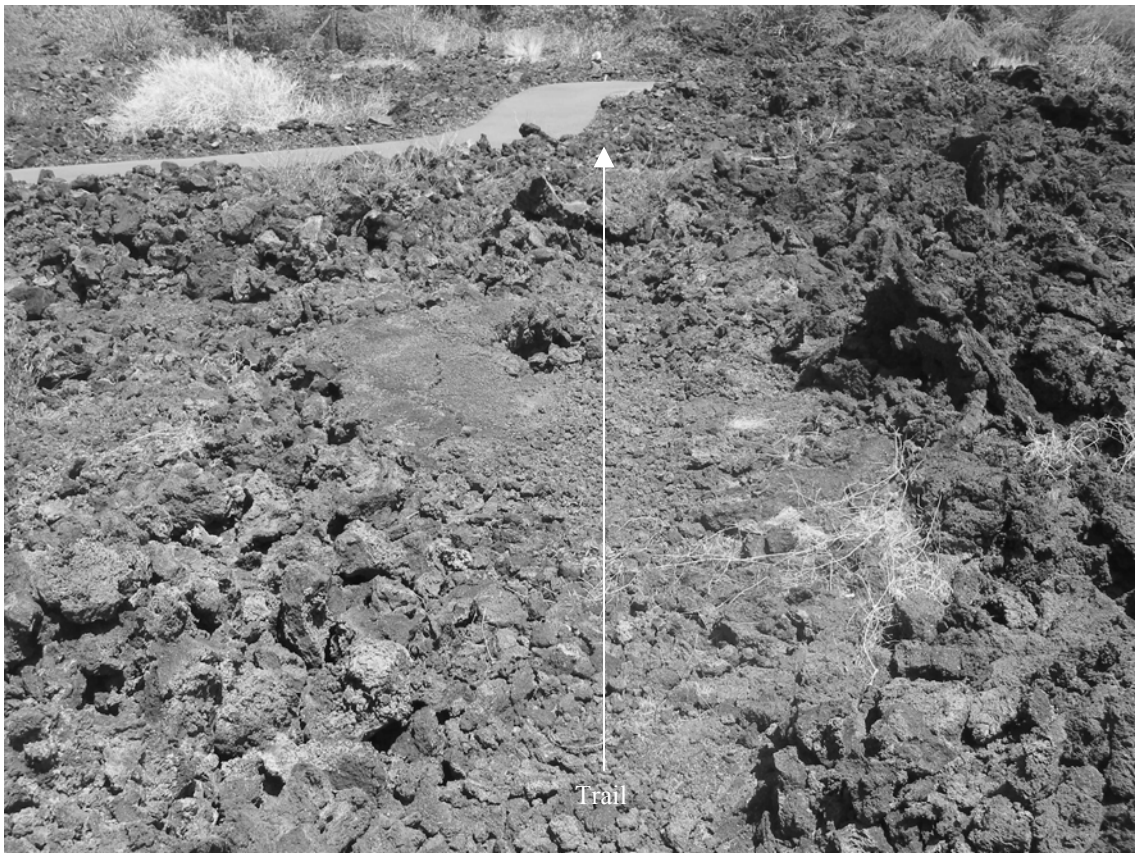

Figure 9. SIHP Site 26258, view to northeast (trail to Puakō petroglyph field in background).

Figure 10. SIHP Site 26258, view to south (Holoholo Kai Beach Park access road and the Mauna Lani Resort in background).

Figure 11. SIHP Site 26258, view to northeast (Holoholo Kai Beach Park access road in background).

SIGNIFICANCE EVALUATION AND TREATMENT RECOMMENDATIONS

Site 26258 is assessed for significance based on criteria established and promoted by the DLNR-SHPD and contained in the Hawai‘i Administrative Rules 13§13-284-6. This significance evaluation should be considered as preliminary until DLNR-SHPD provides concurrence. For a resource to be considered significant it must possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

A Be associated with events that have made an important contribution to the broad patterns of our history;

B Be associated with the lives of persons important in our past;

C Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; or possess high artistic value;

D Have yielded, or is likely to yield, information important for research on prehistory or history;

E Have an important traditional cultural value to the native Hawaiian people or to another ethnic group of the state due to associations with traditional cultural practices once carried out, or still carried out, at the property or due to associations with traditional beliefs, events or oral accounts—these associations being important to the group’s history and cultural identity.

Site 26258 is considered significant under Criterion D for information it has presented relative to past land use within the current project area. Site 26258 has already been partially destroyed. Any further potential adverse impacts to Site 26258 resulting from the proposed emergency access road have been successfully mitigated by information collected during the current study. As such, no further work is the recommended treatment for this site.

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FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

February 27, 2008

Robert B. Rechtman, Ph.D.
HC 1 Box 4149
Keaau, Hawaii 96749

LOG NO: 2007.4251
DOC NO: 0802MD85
Archaeology

Dear Dr. Rechtman:

SUBJECT: Chapter 6E-42 Historic Preservation Review –
Archaeological Inventory Survey for the Proposed Puako Community Emergency Access Road, a 30-m x 200-m Corridor with One New Site Discovered
Lalamilo Ahupua`a, South Kohala District, Island of Hawai`i
TMK: (3) 6-9-01:17 por. and (3) 6-9-06:51 por.

Thank you for submitting the report by Clark and Rechtman (2007), your report RC-0518, for our review and comment. We apologize for the delay in our response. The report summarizes the results of an archaeological inventory survey of a 30-meter wide by 200-meter long corridor for the Puako Community Association.

The survey identified one previously unidentified site and assessed it as significant under criterion d, and recommended no further work. The site, a 25-meter long trail section (Site no. 26258) needs no mitigation because it was significant solely for its information content and a reasonable and adequate amount of that information was recorded/collected during the survey. Thus, development of this parcel will have "no effect" on significant historic sites and the report is accepted. The historic preservation review process is concluded.

Please contact Morgan Davis at (808) 896-0514 if you have any questions or concerns regarding this letter.

Aloha,

Nancy McMahon, Acting Archaeology Branch Chief
State Historic Preservation Division

ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 4a

COMMENTS IN RESPONSE TO PRE-CONSULTATION

Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-4224
(808) 961-8288 • FAX (808) 961-8742

October 29, 2007

Mr. Ron Terry
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry:

Subject: Pre-Consultation for Draft Environmental Assessment
Project: Puako Emergency Access Road
Tax Map Key: 6-9-01:17

This is in response to your two letters, dated October 15, 2007, in which you requested our comments on any special environmental conditions or impacts related to the proposed development, and any information we could provide regarding Special Management Area Permit requirements for the proposed project.

We understand that the proposed project includes the construction of a 625-foot long gravel road within a 30-foot right-of-way to connect the end of Puako Beach Drive to Mauna Lani Resort roadways. The proposed roadway will be partially located in TMK 6-9-01:17, which is owned by the State of Hawaii and leased to Mauna Lani Resort, Inc. This parcel is situated in the State Land Use Conservation district. As such, the Hawaii County Open zoning and Agriculture A-5a designations are not applicable. According to the County of Hawaii's General Plan Land Use Pattern Allocation Guide Map, the property is designated for open space uses. The property is also in the Special Management Area.

Pursuant to Rule 9-4(10)A(i), (ii) & (v), Planning Commission Rules of Practice and Procedure (PC Rules), the construction of a roadway is defined as "development" and requires the approval of either a SMA Minor or Major Use Permit. We understand that the proposed roadway project is estimated to cost approximately $50,000. Therefore, a Special Management Area (SMA) Use Permit Assessment Application will be required for review against the SMA guidelines by the Planning Department for the issuance of a determination by the Planning Director as to whether or not the proposed project presents a cumulative impact or a significant adverse environmental or ecological effect on the SMA.

Please provide this office with a copy of the EA upon its publication. Should you have questions, please feel welcome to contact Dana Okano or Esther Imamura of my staff at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

DO:cd
P:\public\wpwin60\Dana\EA - EIS\Geometrician 6-9-1-17 Pre-DEA doc

Harry Kim
Mayor

Bruce C. McClure
Director

Jiro A. Sumada
Deputy Director

County of Hawai'i
DEPARTMENT OF PUBLIC WORKS
Aupuni Center
101 Pauahi Street, Suite 7 · Hilo, Hawai'i 96720-4224
(808) 961-8321 · Fax (808) 961-8630
www.co.hawaii.hi.us

October 24, 2007

Mr. Ron Terry, Principal
Geometrician Associates LLC
P.O. Box 396
Hilo, HI 96721

Subject: Environmental Assessment (EA) for Puako Emergency Access Road.
Puako, South Kohala District, Island of Hawaii
TMK: (3) 6-9-001:017

We reviewed the subject announcement and have no comments at the present time. We request a copy of the Draft Environmental Assessment when completed. Thank you for your consideration.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

Galen M. Kuba, Division Chief
Engineering Division

KE
c: ENG - HILO/KONA
Planning Director

LINDA LINGLE
GOVERNOR

CHIYOME L. FUKINO, M.D.
Director of Health

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 916
HILO, HAWAII 96721-0916

November 5, 2007

Ron Terry, Principal
Geometrician Associates, LLC
P.O. Box 396
Hilo, Hawaii 96721

Dear Mr. Terry,

Subject: Environmental Assessment (EA) for Puako Emergency Access Road, TMK: (3) 6-9-01:17

The applicant would need to meet the requirements of our Department of Health Air Pollution Rules, Chapter 60.1, Title 11, State of Hawaii for fugitive dust control. If there is need to discuss these requirements, please contact our Clean Air Branch staff at Ph. 933-0401.

The Department of Health (DOH), Clean Water Branch (CWB), acknowledges receipt of the subject document on October 31, 2007. The CWB has reviewed the limited information contained in the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 for this project. 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...". 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 Hawaii Administrative Rules (HAR), Chapter 11-54.

2. In accordance with HAR, Sections 11-55-04 and 11-55-34.05, the Director of Health may require the submittal of an individual permit application or a Notice of Intent (NOI) for general permit coverage authorized under the National Pollutant Discharge Elimination System (NPDES).

   a. An application for an NPDES individual permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at

http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

b. An NOI to be covered by an NPDES general permit is to be submitted at least 30 days before the commencement of the respective activity. A separate NOI is needed for coverage under each NPDES general permit. 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.

i. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi). [HAR, Chapter 11-55, Appendix B]

ii. 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 commencement of the construction activities. [HAR, Chapter 11-55, Appendix C]

iii. Discharges of treated effluent from leaking underground storage tank remedial activities. [HAR, Chapter 11-55, Appendix D]

iv. Discharges of once through cooling water less than one (1) million gallons per day. [HAR, Chapter 11-55, Appendix E]

v. Discharges of hydrotesting water. [HAR, Chapter 11-55, Appendix F]

vi. Discharges of construction dewatering effluent. [HAR, Chapter 11-55, Appendix G]

vii. Discharges of treated effluent from petroleum bulk stations and terminals. [HAR, Chapter 11-55, Appendix H]

viii. Discharges of treated effluent from well drilling activities. [HAR, Chapter 11-55, Appendix I]

ix. Discharges of treated effluent from recycled water distribution systems. [HAR, Chapter 11-55, Appendix J]

x. Discharges of storm water from a small municipal separate storm sewer system. [HAR, Chapter 11-55, Appendix K]

xi. Discharges of circulation water from decorative ponds or tanks. [HAR, Chapter 11-55, Appendix L]

2. In accordance with HAR, Section 11-55-38, the applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

3. Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage, shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54.

Hawaii Revised Statutes, Subsection 342D-50(a) requires that "[n]o person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this chapter, or a permit or variance issued by the director."

If you have any questions, please contact Mr. Alec Wong, Supervisor of the Engineering Section, CWB, at (808) 586-4309.

Construction activities must comply with the provisions of Hawaii Administrative Rules, Chapter 11-46, "Community Noise Control."

1. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the rules.

2. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers.

3. The contractor must comply with the requirements pertaining to construction activities as specified in the rules and the conditions issued with the permit.

Should there be any questions on this matter, please contact the Department of Health at 933-0917.

We recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project should be adhered to.

Sincerely,

Newton Inouye
Acting District Environmental Health
Program Chief

WORD:EA-Puako Emergency Access Road

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF.OCCL.MC

Corr HA-08-79

NOV - 9 2007

Ron Terry
Geometrician Associates, LLC
PO Box 396
Hilo, HI 96721

Dear Mr. Terry,

SUBJECT: SUBZONE DESIGNATION ALONG PROPOSED PUAKŌ ACCESS ROAD
Puakō, South Kona, Hawai`i
TMK (3) 6-9-01:17

The Office of Conservation and Coastal Lands (OCCL) has reviewed the information you provided regarding the Conservation District Use Application you are working on for a proposed access road to the Puakō Community on the above subject parcel.

Our records show that the parcel contains both Protective and General Subzones. The plan you submitted shows that the proposed road will connect Puakō Beach Drive with a Mauna Lani Resort road. The alignment given appears to lie entirely within the General Subzone.

Please contact our office again should the proposed alignment change.

If you have any questions feel free to call staff planner Michael Cain at 587-0048.

Aloha,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

Aloha Ron

We have looked over your EA for Puako Access Road, and it looks fine!

Mahalo!

Paul Campbell
Chair
Mdw Loa Group

PO Bx 1137
Hilo HI 96721

to Geometrician
PO Bx 396
Hilo HI
96721

Attn. Ron Terry

ISLAND HERITAGE HONOLULU HAWAII

SUMMIT OF MAUNA KEA

The sun sets over the beautiful slopes of Mauna Kea, where many ski the 14,000 foot level of this world famous volcanic cone

Photo by P. French

Published by

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PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD07/3291

November 14, 2007

Ron Terry
Principal
Geometrician Associates
PO Box 396 Hilo, Hawai'i 96721

RE: Pre Consultation for Puakō Emergency Access Road Environmental Assessment (EA), Puakō Beach Drive, Hawai'i, TMK: 3-6-9-01:017.

Dear Mr. Terry,

The Office of Hawaiian Affairs (OHA) is in receipt of your request for written comments for pre consultation for an emergency access road connecting Puakō Beach Drive to Mauna Lani Resort on the island of Hawai'i. OHA certainly understands the importance of this project as described and we offer the following comments:

OHA realizes that this area is rich in cultural history. We request assurance from the applicant that if iwi kūpuna or other cultural deposits are uncovered, work will stop and the applicant will contact the State Historic Preservation Division immediately.

OHA also looks forward to receiving and commenting on the EA when it is complete and would find it most helpful if it included a list of permits applied for. OHA also looks for best management practices employed as well as erosion control measures anticipated to be taken.

OHA sees the potential for constitutionally protected public and Native Hawaiian access issues to arise and would look for an analysis of the scope of these activities occurring in the project area, the potential impact of the proposed project on those activities and the actions taken to mitigate these negative effects.

OHA appreciates having been consulted with at this stage in the project. At this time, OHA does not have any further comments. If you have any further questions or concerns please contact Grant Arnold at (808) 594-0263 or granta@oha.org.

Sincerely,

Clyde W. Nāmu'o
Administrator

C: Ruby McDonald, Community Resources Coordinator
Office of Hawaiian Affairs, Kona Office
75-5706 Hanama Place Suite 107
Kailua-Kona, HI 96740

Harry Kim
Mayor

County of Hawai'i

CIVIL DEFENSE AGENCY
920 Ululani Street · Hilo, Hawaii 96720-3958
(808) 935-0031 · Fax (808) 935-6460

January 28, 2008

Ron Terry, Principal
Geometrician Associates, LLC
P. O. Box 396
Hilo, Hawai'i 96720

Re: Environmental Assessment for Puako Emergency Access Road
Tax Map Key: (3rd) 6-9-01:17

Dear Mr. Terry:

Thank you for the opportunity to comment on this proposed project.

The project to provide an emergency access and evacuation route is a good one for the community of Puako. It is emphasized here that the road is for emergency access and an evacuation route, and primarily for no other purpose. The only comment of concern here is that of the 30 foot wide right-of-way. It is hoped that the construction of a gravel roadway would not encompass the entire 30 feet, but only what is necessary. It is hard to envision that anything wider than 20 feet is necessary.

Aloha,

Harry Kim

Harry Kim
Mayor and Acting Civil Defense Administrator

Hawaii County is an equal opportunity provider and employer

Harry Kim
Mayor

Darryl J. Oliveira
Fire Chief

Glen P.I. Honda
Deputy Fire Chief

County of Hawai'i

HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 103 • Hilo, Hawai'i 96720
(808) 981-8394 • Fax (808) 981-2037

October 29, 2007

Mr. Ron Terry
Geometrician Associates, LLC
PO Box 396
Hilo, Hawaii 96721

SUBJECT: ENVIRONMENTAL ASSESSMENT
PUAKO EMERGENCY ACCESS ROAD
TAX MAP KEY: (3RD) 6-9-01:17

We have no comments to offer at this time in reference to the above-mentioned Environmental Assessment.

DARRYL OLIVEIRA
Fire Chief

PBW:lpc

ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 4b

COMMENTS TO DRAFT E.A. AND RESPONSES

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
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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

REF:OCCL:DH

CDUA: HA-3469

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008

JUL - 8 2008

Ron Terry
Geometrician Associates
P.O. Box 396
Hilo, Hawaii 96721

SUBJECT: Conservation District Use Application (CDUA) HA-3469 for use of State-owned lands South Kohala District, Island of Hawaii, TMK: (3) 6-9-001:017 & 6-9-006:051 for the Puako Community Association

This letter is regarding the processing of CDUA HA-3469. The public and agency comment period on your application has closed. Attached to this letter are copies of the comments received by the Office of Conservation and Coastal Lands (OCCL) regarding your CDUA. Please send copies of your responses to the questions raised in these letters directly to the authoring agency as well as to the OCCL. Please submit six paper copies of the Final EA (FEA) to us by July 25, 2008 so it can be submitted for the August 8, 2008 Environmental Notice. Also include an Office of Environmental Quality Control (OEQC) Publication Form for the Final EA, and if the project summary has changed a new summary on diskette. We also request that you include the entire CDUA with the Final EA on a compact disk for your submittal.

Should you have questions, please call Dawn Hegger of our Office of Conservation and Coastal Lands staff at 587-0380.

Sincerely,

Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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2008 MAY 28 A 11: 39

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF:OCCL:DH

CDUA: HA-3469

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008
SUSPENSE DATE: 21 Days from stamped date
MAY 2 3 2008

MEMORANDUM

TO: Hawaii District Land Office, Historic Preservation Division, Division of Forestry and Wildlife, Aquatic Resources Division, Engineering Division, State Parks Division, and Division of Conservation and Resources Enforcement

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road

APPLICANT: Ron Terry, Geometrician Associates, P.O. Box 396, Hilo, Hawaii, 96721

TMK: (3) 6-9-001:017 & 6-9-006:051

LOCATION: Puna, South Kohala, Island of Hawaii

PUBLIC HEARING: ____ NO X

Please contact Dawn Hegger at 587-0380, should you have any questions on this matter.

If no response is received by the suspense date, we will assume there are no comments. The suspense date starts from the date stamp.

(X) Comments Attached

( ) No Comments

Signature

Date 6/27/08

Attachment(s)

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

75 Aupuni Street, Room 204
Hilo, Hawaii 96720
PHONE: (808) 974-6203
FAX: (808) 974-6222

June 27, 2008

MEMORANDUM

TO: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

FROM: Kevin E. Moore, Hawaii District Land Agent

SUBJECT: Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road; and Draft Environmental Assessment Puako Emergency Road

LOCATION: Puako, South Kohala, Island of Hawaii, TMK (3) 6-9-001:017 & 6-9-006:051
APPLICANT: Ron Terry, Geometrician Associates, LLC, P.O. Box 396, Hilo, HI 96721

Pursuant to your request for comments on the above matter, we offer the following:

The existence of the emergency road will need to be legally documented. There are several possibilities: a grant of easement from the State to the applicant, a lease of the roadway to the applicant or another entity, or a set-aside of the roadway from the State to the County of Hawaii. The CDUA and draft EA indicate that the road will traverse two parcels. The northern parcel, designated as TMK (3) 6-9-006:051, is unencumbered State land. The southern parcel, designated as TMK (3) 6-9-001:017, is State land presently leased to Mauna Lani Resort (Operation), Inc. under General Lease No. S-5162.

1. Easement. If the applicant requests an easement from the State over the parcels, access to the easement cannot be restricted by gates or other means. Additionally, the applicant will be required to pay fair market value for the easement, unless applicant qualifies as a charitable organization certified as tax exempt under Internal Revenue Code sections 501(c)(1) or 501(c)(3).

2. Lease. If the applicant requests a lease of the roadway, the portion of the road traversing the southern parcel (TMK (3) 6-9-001:017) will have to be withdrawn from the Mauna Lani Resort lease with the resort's consent and then leased to applicant. The State could lease the portion of the roadway over the northern parcel (TMK (3) 6-9-006:051) to applicant, or grant an easement to applicant in that portion. Again, the applicant would be required to pay fair market

value for the leasehold interest or easement acquired in the road, unless the applicant qualifies as a charitable organization.

3. Sublease. Alternatively, Mauna Lani Resort could sublease the portion of the road on the southern parcel to the applicant with prior Land Board approval. However, GL S-5162 does not specifically permit the use of the land for emergency access road purposes. The "Character of Use" provision of the lease states:

> That the Lessee shall use the premises hereby demised solely for <u>all</u> of the following purposes: (1) an archaeological park; (2) a public beach park; (3) public access roadway to the archaeological park and public beach park; and (4) commercial recreational use, including but not limited to golf course.

Accordingly, an amendment to the lease may be required under this alternative. Mauna Lani Resort acquired GL S-5162 at public auction. Leases made entered into through the public auction process usually cannot be amended.

4. Set-Aside. Another option would be to withdraw the portion of the roadway under lease to Mauna Lani Resort from GL S-5162 with its consent and set aside both portions of the road to the County by executive order. The county would then be responsible for access and maintenance.

5. Subdivision. A lease or set-aside of the roadway would require that the road be subdivided out of the northern and southern parcels.

Cc: Morris M. Atta, Administrator, Land Division

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF:OCCL:DH

CDUA: HA-3469

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008
SUSPENSE DATE: 21 Days from stamped date
MAY 2 3 2008

MEMORANDUM

TO: Hawaii District Land Office, Historic Preservation Division, Division of Forestry and Wildlife, Aquatic Resources Division, Engineering Division, State Parks Division, and Division of Conservation and Resources Enforcement

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road

APPLICANT: Ron Terry, Geometrician Associates, P.O. Box 396, Hilo, Hawaii, 96721

TMK: (3) 6-9-001:017 & 6-9-006:051

LOCATION: Puna, South Kohala, Island of Hawaii

PUBLIC HEARING: ____ NO X

Please contact Dawn Hegger at 587-0380, should you have any questions on this matter.

If no response is received by the suspense date, we will assume there are no comments. The suspense date starts from the date stamp.

(X) Comments Attached

( ) No Comments

Signature

6/9/09
Date

Attachment(s)

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

OCCL/DHegger
Ref.: CDUA-DEAPuakoEmergencyRd
Hawaii.387

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.**

( ) 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 ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include 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 S. Agraan of the Planning Branch at 587-0258.

Signed: _____
for ERIC T. HIRANO, CHIEF ENGINEER

Date: 6/9/08

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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

REF:OCCL:DH

CDUA: HA-3469

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008
SUSPENSE DATE: 21 Days from stamped date
MAY 2 3 2008

MEMORANDUM

TO: Hawaii District Land Office, Historic Preservation Division, Division of Forestry and Wildlife, Aquatic Resources Division, Engineering Division, State Parks Division, and Division of Conservation and Resources Enforcement

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road

APPLICANT: Ron Terry, Geometrician Associates, P.O. Box 396, Hilo, Hawaii, 96721

TMK: (3) 6-9-001:017 & 6-9-006:051

LOCATION: Puna, South Kohala, Island of Hawaii

PUBLIC HEARING: ___ NO X

Please contact Dawn Hegger at 587-0380, should you have any questions on this matter.

If no response is received by the suspense date, we will assume there are no comments. The suspense date starts from the date stamp.

( ) Comments Attached

(X) No Comments

Attachment(s)

Signature MAY 2 9 2008

Date

PAUL J. CONRY, ADMINISTRATOR
DIVISION OF FORESTRY AND WILDLIFE

2008 JUN -3 A 11:35
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII
OFFICE OF CONSERVATION AND COASTAL LANDS

LINDA LINGLE
GOVERNOR OF HAWAII

Hawaii

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
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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

REF:OCCL:DH

CDUA: HA-3469

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008
SUSPENSE DATE: 21 Days from stamped date
MAY 2 3 2008

MEMORANDUM

TO: Hawaii District Land Office, Historic Preservation Division, Division of Forestry and Wildlife, Aquatic Resources ~~Division,~~ Engineering Division, State Parks Division, and Division of Conservation and Resources Enforcement

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road

APPLICANT: Ron Terry, Geometrician Associates, P.O. Box 396, Hilo, Hawaii, 96721

TMK: (3) 6-9-001:017 & 6-9-006:051

LOCATION: ~~Puna~~ Puako, South Kohala, Island of Hawaii

PUBLIC HEARING: ____ NO X

RECEIVED
2008 MAY 27 AM 10: 29
DOBR
DEPT OF LAND AND NATURAL RESOURCES

Please contact Dawn Hegger at 587-0380, should you have any questions on this matter.

If no response is received by the suspense date, we will assume there are no comments. The suspense date starts from the date stamp.

( ) Comments Attached

( ) No Comments

Signature

Date

Attachment(s)

DOCARE-18 | DOCARE-18 | File Number | 3469-HA

Applicant: GEOMETRICIAN ASSOCIATES

Contact: RON TERRY, 808-969-7090

Location: TMK: (3) 6-9-001-017, 6-9-006-051

Project Summary: PUAKO EMERGENCY ROAD

Project Description: APPLICANT IS PROPOSINGTHE USE OF STATE-OWNED LANDS (GENERAL AND PROTECTIVE SUBZONE) TO CONSTRUCT PUAKO EMERGENCY ROAD FOR THE PUAKO COMMUNITY ASSOCIATION. THE ROAD WILL CONNECT THE END OF PUAKO BEACH ROAD WITH HOLOHOLO KAI BEACH PARK ACCESS ROAD. EXISTING TREES WILL BE CUT, THE ROAD GRADED AND SURFACED WITH GRAVEL AND THE ANCHIALINE POND NEAR THE PROJECT AREA WILL BE BUFFERED WITH CONSTRUCITON FENCING.

Branch Assigned: HAWAII | Date Referred: 5/29/2008 | Date Due: 6/16/2008

Instructions: REVIEW THE ATTACHED APPLICATION AND COMMENT WITH RESPECT TO DOCARE'S CURRENT AND FUTURE PROGRAMS. NO SITE INSPECTION IS NEEDED. IF NO RESPONSE IS RECEIVED, OCCL WILL ASSUME THAT THERE ARE NO COMMENTS.

Branch Report Number: HA-08-1248 | Officer Assigned: K. KEAWE

Date Assigned: 06/08/08 | Date of Inspection: 06/08/08

Has Work Been Initiated: Yes ☒ No ☐

Describe:

Were Any Descrepancies Noted: Yes ☐ No ☒

Remarks:

Is Approval Recommended: Yes ☒ No ☐

Notes: NO COMMENT.

Final Disposition:

RECEIVED DOCARE HILO, HAWAII 2008 JUN 2 P 2:

RECEIVED 2008 JUN 9 A 10: 28 DOCARE

RECEIVED 2008 JUN 9 PM 1:52 DOCARE DEPT OF LAND AND NATURAL RESOURCES

517714

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIEL
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
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HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

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STATE PARKS

2008 JUN -6 P 3: 24

DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

'08 MAY 27 A 9:41

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
OFFICE OF CONSERVATION AND COASTAL LANDS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

REF:OCCL:DH

CDUA: HA-3469

DEPT OF LAND & NATURAL RESOURCES

Acceptance Date: May 19, 2008
180 Exp. Date: November 15, 2008
SUSPENSE DATE: 21 Days from stamped date
MAY 2 3 2008

MEMORANDUM

TO: Hawaii District Land Office, Historic Preservation Division, Division of Forestry and Wildlife, Aquatic Resources Division, Engineering Division, State Parks Division, and Division of Conservation and Resources Enforcement

FROM: Samuel J. Lemmo, Administrator
Office of Conservation and Coastal Lands

SUBJECT: REQUEST FOR COMMENTS
Conservation District Use Application (CDUA) HA-3469 Puako Emergency Road

APPLICANT: Ron Terry, Geometrician Associates, P.O. Box 396, Hilo, Hawaii, 96721

TMK: (3) 6-9-001:017 & 6-9-006:051

LOCATION: Puna, South Kohala, Island of Hawaii

PUBLIC HEARING: ____ NO X

Please contact Dawn Hegger at 587-0380, should you have any questions on this matter.

If no response is received by the suspense date, we will assume there are no comments. The suspense date starts from the date stamp.

( ) Comments Attached

(✓) No Comments

Signature

6/6/08
Date

Attachment(s)

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RECEIVED

08 JUN 23 P3: 11

COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

June 20, 2008

MEMORANDUM

RECEIVED LAND DIVISION 2008 JUN 24 P 2: 08 DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
x Div. of Forestry & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
x Land Division – Hawaii District

FROM: Morris M. Atta, Administrator
SUBJECT: Early Consultation for Environmental Assessment for Hawaii County Department of Public Works Facilities in Puna, South Kohala, and South Hilo Districts
LOCATION: Island of Hawaii; TMKs: (3) 1-7-003:019; (3) 6-6-001:056; and (3) 2-2-033:016
APPLICANT: Geometrician Associates, LLC on behalf of Hawaii County Department of Public Works

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by July 11, 2008.

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 Darlene Nakamura at 587-0417. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: Edwin T. Sakata
Date: 6/24/08

cc: Central Files

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

July 18, 2008

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

Dear Mr. Lemmo:

Subject: Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i. CDUA HA-3469, Applicant: Puakō Community Association

I am in receipt of your letter of July 8, 2008, regarding the processing of CDUA HA-3469, which transmits the agency and public comments that DLNR received on the project and providing instructions for submittal of the Final EA to your office.

For those non-DLNR commenters that provided standalone letters to you (i.e., Planning Department; Police; Fire; State Civil Defense; Robert Ward), I have prepared separate response letters addressed directly to the commenters, and am providing your office a copy of each response letter (attached). Under the understanding that the DLNR is prepared to issue a FONSI for the project, also attached, per your instructions, are six paper copies of the Final EA, which reflects the FONSI finding, a paper copy of the OEQC transmittal material, and the Final EA and CDUA on a CD, which also contains the OEQC transmittal material, including the project summary.

In the interest of a complete record on comment letters to the EA/CDUA, I would like to acknowledge receipt of comments contained within your transmittal letter as well as form memos circulated by your office. Below are responses to your comments to the branches and divisions that supplied comments or no-comment checkmarks (Land Division; Engineering; OCCL, DOFAW, CWRM and DOCARE).

A. Hawai'i Island Land Division Comments:

Thank you very much for carefully outlining the options. The Puakō Community Association (PCA) plans to study these and consult with your office prior to filing a request for an easement, a lease, a sublease, or a set-aside. The PCA is currently in the process of applying for 501(c)(3)

status. It expects to obtain this soon, and understands the need to pay fair market value otherwise under certain of the options. The PCA also understands that it would be responsible for subdividing the leased roadway portions from their parent properties, if a lease or set-aside is undertaken.

B. Engineering Division Comments

Thank you for your confirmation that the proposed roadway is within Flood Zone X.

We acknowledge the no-comment memos from the Division of Forestry and Wildlife, Division of Conservation and Resource Enforcement, State Parks, and the Commission on Water Resources Management.

Thank you for circulating the EA and CDUA for review by DLNR agencies. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Harry Kim
Mayor

Christopher J. Yuen
Director

Brad Kurokawa, ASLA
LEED® AP
Deputy Director

County of Hawaii
PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-4224
(808) 961-8288 • FAX (808) 961-8742

June 16, 2008

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS
2008 JUN 19 A 8: 29
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

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

Dear Mr. Lemmo:

Subject: **Request for Comments on CDUA HA-3469**
Project: **Construction of Puako Emergency Road**
TMK: 6-9-001:017 & 6-9-006:051
Puako Beach Lots, Lalamilo, South Kohala, Hawaii

This is in response to your letter dated June 2, 2008 regarding the proposed project. Included with your letter was a copy of the subject application and your Department's Notice of Acceptance and Preliminary Environmental Determination. Thank you for the opportunity to comment on this permit application.

Parcel 6-9-006:051 is designated Urban by the State Land Use Commission, zoned Open by Hawaii County Code, and designated Open by the Hawaii County General Plan. Parcel 6-9-001:017 is designated Conservation by the State Land Use Commission, zoned Agriculture (A-5a) by Hawaii County Code, and designated Open by the Hawaii County General Plan. Both parcels are located entirely within the Special Management Area (SMA).

Since the proposed project is located within the SMA, and pursuant to Rule 9-4(10)A(i), (ii) & (v), Planning Commission Rules of Practice and Procedure, the construction of a roadway is defined as "development" and is subject to Special Management Area review and permitting under the SMA guidelines and Hawaii County Code. The applicant has submitted a Special Management Area Use Permit Assessment Application (SMAA), received on June 6, 2008 by the Planning Department. The SMAA is currently under review and no determination has been made as of date of this letter.

Please be advised that due to the proximity of the proposed emergency road to an anchialine pond on parcel 6-9-001:017, the applicant will be required to obtain written recommendation from the Army Corps of Engineers for establishing an acceptable distance of construction activities related to, and including, the road from the anchialine pond. The terms outlined in the recommendation will be required as a condition of any permit issued by the Planning Department in relation to the proposed project.

If you have questions, please feel free to contact Dana Okano of this office at 961-8288 ext 271.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

DO:cs
P:\Wpwin60\Dana\CDUA comments\HA-3469 PuakoCA.doc

xc: Long Range Planning
Planning Department, Kona

Mr. George Young, Chief of Regulatory Branch
U.S. Army Corps of Engineers
Honolulu Engineers District, Building 230
Ft. Shafter, HI 96858

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

July 18, 2008

Christopher J. Yuen, Director
Hawai'i County Planning Dept.
101 Aupuni Street, Suite 3
Hilo HI 96720

Dear Mr. Yuen:

Subject: **Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i, Applicant: Puakō Community Association**

Thank you for your comment letter on the Draft EA dated June 16, 2008. The following is our point by point response to your comments.

1. Parcel 6-9-006:051. Thank you for clarifying that this property is within the Urban District, zoned Open by the County, and designated Open in the Hawai'i County General Plan. This information has been added to the Final EA.

2. SMA. We have been coordinating with Dana Okano of your office regarding the processing and information requirements for the SMA permit.

We appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Cc: Sam Lemmo, Administrator, Hawai'i DLNR OCCL

LINDA LINGLE
GOVERNOR

MAJOR GENERAL ROBERT G. F. LEE
DIRECTOR OF CIVIL DEFENSE

EDWARD T. TEIXEIRA
VICE DIRECTOR OF CIVIL DEFENSE

PHONE (808) 733-4300
FAX (808) 733-4287

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

June 26, 2008

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

Dear Mr. Lemmo:

Thank you for your memo of May 23, 2008, referencing the Conservation District Use Application (CDUA) for the Puako Emergency Road Project for the Puako Community Association. This is a project we believe will have a valuable impact on the Puako community with its ability to provide an alternate emergency route from which all will benefit.

The Department of Defense Civil Defense Division is in full support of this project as outlined in the "Draft Environmental Assessment Puako Emergency Road" attached with your memo.

This is a project of which we can all be proud and one that will benefit many.

Please contact Mr. Gary Greenly, State Civil Defense Disaster Recovery Coordinator, at 733-4301, ext. 614, if you have any questions or need further assistance.

Sincerely,

EDWARD T. TEIXEIRA
Vice Director of Civil Defense

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

July 18, 2008

Edward T. Teixeira, Vice Director of Civil Defense
Dept. of Defense, Civil Defense
3949 Diamond Head Road
Honolulu HI 96816-4495

Dear Mr. Teixeira:

Subject: **Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i, Applicant: Puakō Community Association**

Thank you for your comment letter on the Draft EA dated June 26, 2008, in which you stated your Department's support for the project. On behalf of the Puakō Community Association, I would like to thank you for the assistance that you and your agency have consistently provided to enable completion of this worthy and vitally needed safety improvement.

We appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Cc: Sam Lemmo, Administrator, Hawai'i DLNR OCCL

Harry Kim
Mayor

Lawrence K. Mahuna
Police Chief

Harry S. Kubojiri
Deputy Police Chief

RECEIVED
OFFICE OF CONSERVATION
AND COASTAL LANDS
2008 JUN 23 A 8: 29
DEPT. OF LAND &
NATURAL RESOURCES
STATE OF HAWAII

County of Hawaii

POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-2389

June 12, 2008

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

Dear Mr. Lemmo:

SUBJECT: Conservation District Use Application (CDUA) HA-3469 for use of State-owned lands to construct Puako Emergency Road for the Puako Community Association, South Kohala District, Island of Hawaii, TMK: (3) 6-9-001:017 & 6-9-006:051

Staff has reviewed the above-referenced application and indicates that the construction of a Puako Emergency Road is needed given the large brush fires experienced by this community in the past. This roadway will allow for smoother evacuation of residents near the end of Puako.

Sincerely,

LAWRENCE K. MAHUNA
POLICE CHIEF

HENRY J. TAVARES, JR.
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

JNS:dmv

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

JUly 18, 2008

Lawrence Mahuna, Chief
Hawai'i County Police Department
349 Kapiolani Street
Hilo HI 96720

Dear Chief Mahuna:

Subject: **Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i, Applicant: Puakō Community Association**

Thank you for your comment letter on the Draft EA dated June 12, 2008, in which you stated your Department's support for the project. We appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Cc: Sam Lemmo, Administrator, Hawai'i DLNR OCCL

Harry Kim
Mayor

Darryl J. Oliveira
Fire Chief

Glen P.I. Honda
Deputy Fire Chief

County of Hawai'i
HAWAI'I FIRE DEPARTMENT
25 Aupuni Street • Suite 103 • Hilo, Hawai'i 96720
(808) 981-8394 • Fax (808) 981-2037

June 9, 2008

2008 JUN 17 A 9:27
DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII
OFFICE OF CONSERVATION AND COASTAL LANDS

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

RE: CONSERVATION DISTRICT USE APPLICATION (CDUA) HA-3469 FOR USE OF STATE-OWNED LANDS TO CONSTRUCT PUAKO EMERGENCY ROAD FOR THE PUAKO COMMUNITY ASSOCIATION
SOUTH KOHALA DISTRICT
TAX MAP KEY (3) 6-9-001:017 & 6-9-006:051

In regards to the above-mentioned Conservation District Use application, the following shall be in considered:

The proposed emergency road is supported as it will provide alternative access and egress for the community in times of emergency. Although the draft plan identifies the roles and responsibilities of road maintenance, it would be desirable to include conditions on or responsibilities for vegetation or fuel management as it relates to fire hazards.

DARRYL OLIVEIRA
Fire Chief

DO:lpc

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

July 18, 2008

Darryl Oliveira, Chief
Hawai'i County Fire Department
25 Aupuni Street
Hilo HI 96720

Dear Chief Oliveira:

Subject: Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i, Applicant: Puakō Community Association

Thank you for your comment letter on the Draft EA dated June 9, 2008, in which you stated your Department's support for the project. The Puakō Community Association will be in charge of maintaining the vegetation along the route as part of its road maintenance responsibilities. We appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Cc: Sam Lemmo, Administrator, Hawai'i DLNR OCCL

July 3, 2008

Puakō Community Association
P.O. Box 44345
Kawaihae, Hawai'i 96743

RE: Puakō Emergency Road (HRS 343-5(c) DEA) District: South Kohala
TMK: 3-6-9-01:17 and 3-6-09-06:51 por.

Aloha,

The heart of the environmental review process codified under HRS 343 that requires this Draft Environmental Assessment (DEA), should envision all future stages of a project and determine the impact of the complete project and avoid a piecemeal approach. The most urgent phase is obviously to provide emergency egress, ingress, or access for emergency vehicles and equipment to protect the health, and property of the Puakō community. No other future need should imperil this purpose, however the HRS 343 process should consider additional needs and functions that can reasonably be foreseen in the near future.

The Emergency Road may also be required to accommodate emergency egress, ingress, or access for emergency vehicles and equipment for the safety of the residents, guests and employees of the Mauna Lani Resort. Such use may be warranted in the future, require additional surface improvements, and require an agreement between the respective stakeholders, but should be addressed here as part of the Environmental process.

In a similar context the EA should consider the use of the Emergency Road by bicyclists and pedestrians on a regular basis. This too would be subject to an agreement between the respective stakeholders. Such use would have minimal impact (and perhaps with limits on hours of access for non motorized use) while providing several benefits:

a) Regular inspections that could identify damage, erosion or debris accumulation that could restrict emergency use, and assure the availability of the route when it is needed.
b) Provide direct access to link two resort nodes (Mauna Lani and Mauna Kea) with the Puakō community that can accommodate those that bike, walk, or rely on mobility assistance devices.
c) Provide accessible shoreline access along the Ala Kahakai Trail. The existing route may lack a suitable surface for many bicyclists or disabled pedestrians.
d) Provide an alternative route for the Ala Kahakai Trail which may on occasion be blocked due to campers, debris accumulation, erosion, or low hanging vegetation.
e) Provides direct access to a 9-mile long component of Bike Plan Hawai`i. This section is referred to as segment number 91 in the current (2003) plan.

Thank you for your consideration,

Robert Ward

Robert Ward

Cc: State of Hawai'i

Cc: Geometrician Associates LLC

CC: Office of Environmental Quality Control

July 3, 2008

Additional Copies:

State of Hawai'i
Department of Land and Natural Resources
Office of Conservation and Coastal Lands
1151 Punchbowl Street, Room 131
Honolulu, Hawai'i 96813

Geometrician Associates LLC
→ P.O. Box 396
Hilo, Hawai'i 96721

Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Return Address:

77-6526 Ho`olaupa`i St
Kailua Kona, HI 96740

geometrician
ASSOCIATES, LLC
integrating geographic science and planning

phone: (808) 969-7090 fax: (866) 316-6988 PO Box 396 Hilo Hawaii 96721
rterry@hawaii.rr.com

July 18, 2008

Robert Ward
77-6526 Ho'olaupa'i Street
Kailua-Kona HI 96740

Dear Mr. Ward:

Subject: Conservation District Use Application (CDUA)/Draft Environmental Assessment (DEA) for Puakō Emergency Road, TMKs (3rd) 6-9-01:017 and 6-9-006:051, South Kohala District, Island of Hawai'i, Applicant: Puakō Community Association

Thank you for your comment letter on the Draft EA dated July 3, 2008. You assert that Chapter 343 requires the project and the EA to include a pedestrian and bicycle trail. With all due respect, we do not share your interpretation of Chapter 343 here. The applicant for the use of State land that triggers the requirement for an EA – the Puakō Community Association – is not seeking a road that serves a variety of purposes. Their needs are for emergency exit, particularly during fires. This community organization has assumed all of the considerable costs associated with the designing, planning, permitting, building, and inspecting of this emergency road, and it is not obliged to incorporate other possible uses of this State land. On the other hand, the project does not foreclose in any way the eventual creation of a pedestrian and/or bicycle trail on the State land. The County, the State or any other applicant is free to request such uses by obtaining the appropriate permits and approvals.

We appreciate your review of the document. If you have any questions about the EA, please contact me at (808) 969-7090.

Sincerely,

Ron Terry

Ron Terry, Principal
Geometrician Associates

Cc: Sam Lemmo, Administrator, Hawai'i DLNR OCCL

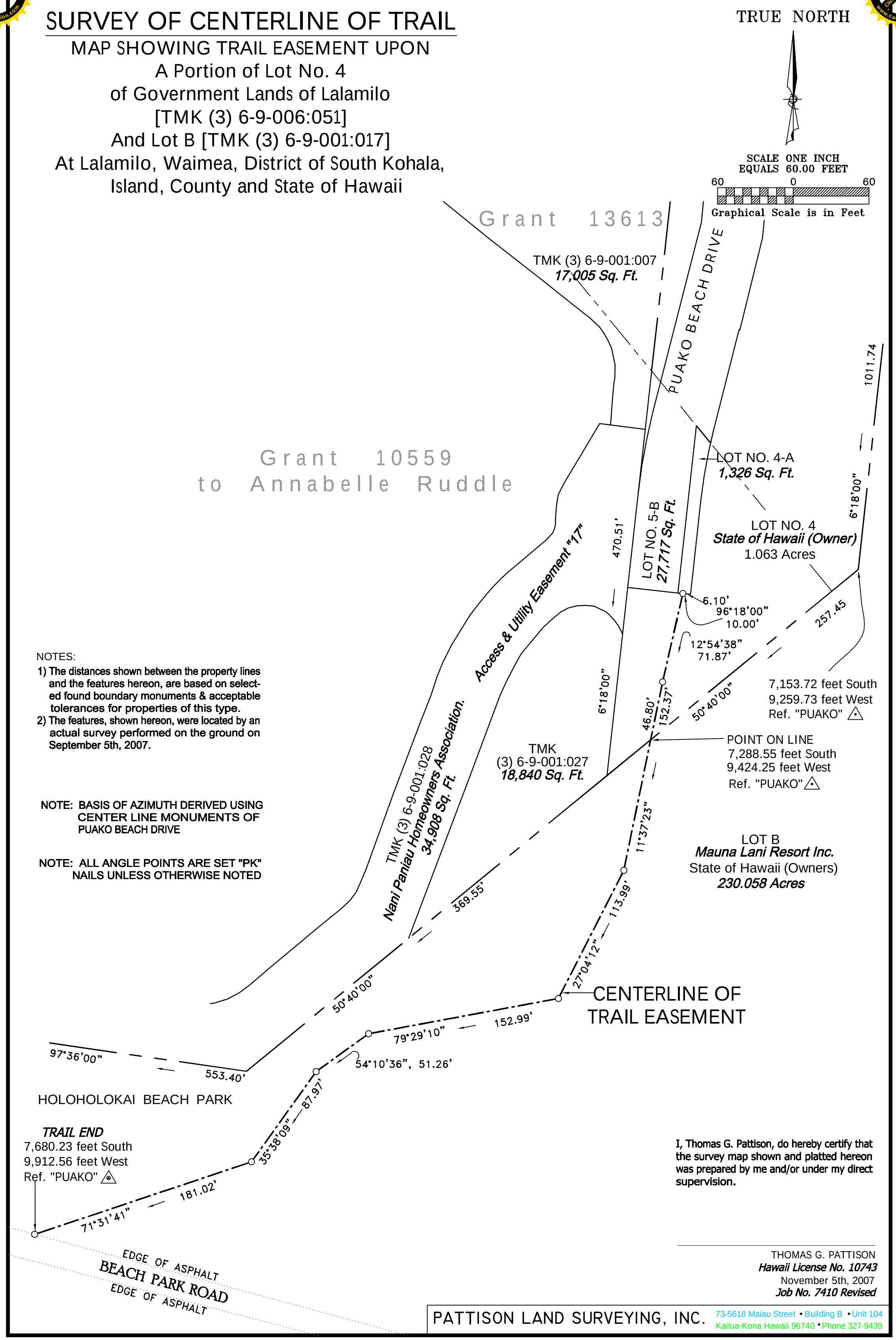
ENVIRONMENTAL ASSESSMENT
PUAKŌ EMERGENCY ROAD

APPENDIX 5

EMERGENCY ROAD SURVEY MAP

SURVEY OF CENTERLINE OF TRAIL

MAP SHOWING TRAIL EASEMENT UPON
A Portion of Lot No. 4
of Government Lands of Lalamilo
[TMK (3) 6-9-006:051]
And Lot B [TMK (3) 6-9-001:017]
At Lalamilo, Waimea, District of South Kohala,
Island, County and State of Hawaii



NOTES:

1) The distances shown between the property lines and the features hereon, are based on selected found boundary monuments & acceptable tolerances for properties of this type.
2) The features, shown hereon, were located by an actual survey performed on the ground on September 5th, 2007.

NOTE: BASIS OF AZIMUTH DERIVED USING CENTER LINE MONUMENTS OF PUAKO BEACH DRIVE

NOTE: ALL ANGLE POINTS ARE SET "PK" NAILS UNLESS OTHERWISE NOTED

I, Thomas G. Pattison, do hereby certify that the survey map shown and platted hereon was prepared by me and/or under my direct supervision.

THOMAS G. PATTISON
Hawaii License No. 10743
November 5th, 2007
Job No. 7410 Revised

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