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OFF. OF ENVIRONMENTAL
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DIVISION OF ADMINISTRATIVE SERVICES

MEMO TO: Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control

Raymond M. Minami
F R O M: Raymond M. Minami, Director
Facilities and Support Services Branch

SUBJECT: DOE/Parker Ranch Land Exchange Final EA

Enclosed for your use are:

- 1) Four copies of the Department of Education (DOE)/Parker Ranch Land Exchange Final Environmental Assessment. DOE has issued a Finding of No Significant Impact.
- 2) Office of Environmental Quality Control Bulletin Publication Form
- 3) Distribution List

The project summary has been transmitted to your office via email from Mr. Ron Terry.

If you have any questions, please call Mr. Sanford Beppu at 733-4862.

Thank you.

RMM:SB:hy

Enclosures

cc: Ron Terry, GeoMetrician

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FINAL ENVIRONMENTAL ASSESSMENT

Department of Education (Parker Ranch
Land Exchange)

TMK (3rd): 6-7-2:15 (por.) & 17 (por.)
Waimea, South Kohala, Hawai'i Island, State of Hawai'i

November 2001

Prepared for:

Hawaii State Department of Education
Facilities and Support Services Branch

FINAL ENVIRONMENTAL ASSESSMENT

**Department of Education/Parker Ranch
Land Exchange**

TMK (3rd) 6-7-2:15 (por.) & 17 (por.)
Waimea, South Kohala District, Island of Hawai'i, State of Hawai'i

**PROPOSING/
APPROVING AGENCY:**

Hawai'i State Department of Education
Facilities and Support Services Branch
P.O. Box 2360
Honolulu, Hawai'i 96804

CONSULTANT:

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CLASS OF ACTION:

Use of State Land

This document is prepared pursuant to:

The Hawaii Environmental Protection Act,
Chapter 343, Hawaii Revised Statutes (HRS), and
Title 11, Chapter 200, Hawaii Department of Health Administrative Rules (HAR).

TABLE OF CONTENTS

SUMMARY.....	iii
PART 1: PROJECT LOCATION, DESCRIPTION AND PURPOSE AND NEED	1
1.1 Project Location and Description.....	1
1.2 Purpose and Need	1
1.3 Summary of Regulatory Requirements.....	2
1.4 Public Involvement and Agency Coordination	3
PART 2: ALTERNATIVES.....	3
2.1 Proposed Action	3
2.2 No Action	3
PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION	4
3.1 Basic Geographic Setting.....	4
3.2 Physical Environment	4
3.2.1 Drainage, Flooding and Hazards.....	4
3.2.2 Flora and Fauna	5
3.2.3 Air Quality, Noise and Scenic Resources	6
3.2.4 Hazardous Substances, Toxic Waste and Hazardous Conditions.....	7
3.3 Socioeconomic and Cultural	7
3.3.1 Land Ownership and Land Use, Designations and Controls	7
3.3.2 Socioeconomic Characteristics	8
3.3.3 Archaeology, Historic Sites and Cultural Setting	10
3.3.4 Agricultural Land	13
3.4 Public Facilities	14
3.4.1 Recreational Facilities	14
3.4.2 Educational Facilities	14
3.4.3 Medical Facilities	14
3.4.4 Electricity, Telephone and Cable Services	14
3.4.5 Water Supply	15
3.4.6 Wastewater	15
3.4.7 Stormwater Drainage Facilities	16
3.4.8 Solid Waste	16
3.4.9 Transportation Facilities	16
3.4.10 Police and Fire Services	16
3.5 Secondary and Cumulative Impacts.....	17
3.6 Required Permits and Approvals	18
3.7 Consistency With Government Plans and Policies.....	18
PART 4: DETERMINATION	20
PART 5: FINDINGS AND REASONS.....	20
REFERENCES	22

LIST OF TABLES

1	Plant Species in Exchange Area	6
2	Selected Socioeconomic Characteristics, by Districts	9
3	Population Trends	10

LIST OF APPENDICES

APPENDIX 1A	COMMENT LETTERS FROM AGENCIES AND ORGANIZATIONS IN RESPONSE TO PRE-CONSULTATION
APPENDIX 1B	COMMENT LETTERS TO DRAFT EA AND RESPONSES (Final EA only)
APPENDIX 2	FIGURES 1. PROJECT LOCATION, OVERVIEW 2. PROJECT SITE MAP 3. EXISTING SITE PHOTOGRAPHS 4. FEMA FLOODPLAINS 5. COUNTY ZONING
APPENDIX 3	DEVELOPMENT AGREEMENT
APPENDIX 4	WAIMEA TOWN CENTER MAP

SUMMARY OF THE PROPOSED ACTION ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The proposed action would involve an exchange of land in which Parker Ranch would convey title to a 4.988-acre portion of TMK 6-7-2:17 to the State of Hawai'i, and the State of Hawai'i would convey title to a 0.78 acre portion of TMK 6-7-2:15 to Parker Ranch. The purposes of the land exchange are to: 1) allow for the future expansion of the Waimea School site, which would accommodate separate campuses for Waimea Elementary and Waimea Intermediate Schools; and 2) improve the design of the proposed extension of Lindsey Road by removing a curve present in the existing design for the road. The land exchange would allow for an approximately 18-acre middle school and an approximately 12-acre elementary school. These acreages will be consistent with Hawai'i State Department of Education (DOE) standard guidelines. Parents and other community members in Waimea have expressed concern about the need to expand the school in a number of meetings with the administration of the school and the DOE over the last several years. The DOE has been seeking land and funds for expansion of the school. The proposed project would provide needed land directly adjacent to the existing school campus, which would greatly facilitate the orderly division of the school into separate Elementary and Intermediate schools, while minimizing a number of infrastructure costs, such as roads, water and utilities. No substantial adverse impacts would occur. The site is a pasture with non-native flora and fauna. Archaeological sites, in the form of a portion of a low wall and a former irrigation channel, are present, but data recovery has already been conducted and the sites are considered no longer significant.

PART 1: PROJECT LOCATION, DESCRIPTION AND PURPOSE AND NEED

1.1 Project Location and Project Description

The proposed land exchange involves two adjacent pieces of property within the ahupua`a of Waimea, in the South Kohala District on the Island of Hawaii (Figs. 1-2). The Parker Ranch property is a 4.988-acre portion of TMK 6-7-2:17. The portion of the State of Hawaii property (TMK 6-7-2:15) that would be exchanged contains 0.78 acres. These portions will be referred to throughout the EA as the *exchange area*.

1.2 Purpose and Need

The Hawaii State Department of Education (DOE) and Parker Ranch have entered into a Development Agreement that would involve the exchange of Parker Ranch land for State Land that is currently under Executive Order to the DOE (see App. 3 for text of agreement). The purposes of the land exchange are to: 1) allow for the future expansion of the Waimea School site, which would accommodate separate campuses for Waimea Elementary and Waimea Intermediate Schools; and 2) improve the design of the proposed extension of Lindsey Road by removing a curve present in the existing design for the road. The exchange would have Parker Ranch dedicate 4.988 acres of land to the State of Hawaii, while the State would dedicate 0.78 acres to Parker Ranch.

The combined enrollment of Waimea Elementary School and Intermediate School has risen to levels of about 1,200 students in the last decade (Hawai`i County Data Book 1993, var. years.). In June 2001, enrollment stood at 1,146 students. The land exchange would allow for an approximately 18-acre middle school and an approximately 12-acre elementary school. These acreages will be consistent with Hawai`i State Department of Education (DOE) standard guidelines. Parents and other community members in Waimea have expressed concern about the need to expand the school in a number of meetings with the administration of the school and the DOE over the last several years. The DOE has been seeking land and funds for expansion of the school. The proposed project would provide needed land directly adjacent to the existing school campus, which would greatly facilitate the orderly division of the school into separate Elementary and Intermediate schools, while minimizing a number of infrastructure costs, such as roads, water and utilities.

The Lindsey Road Extension is part of the circulation network of the Waimea Town Center (WTC), a proposed development of Parker Ranch (see map, App. 4). The Waimea Town Center was planned in the 1980s by then-owner Richard Smart to provide additional urban land in the center of Waimea, rather than the highway margins, to preserve the compact, village-like character of the town. The County approved the original plan in 1992 by Ordinance 92-65. After Mr. Smart died in 1992, the assets of the Ranch went to the Parker Ranch Foundation, which is set up to benefit the residents of Waimea through funding of Parker School, Hawai`i Preparatory Academy, North Hawai`i Community Hospital, and grants funded in Waimea by the Hawai`i Community

Foundation. The Parker Ranch Foundation subsequently modified the plan in response to evolving community concerns and to meet the fiduciary responsibilities of the Parker Ranch Foundation. The modifications were approved in an amendment to the rezoning ordinance in 1996. In overview, the WTC area includes about 360 acres, including approximately 100 acres of commercial zoned lands, 37 acres of multiple-family zoned lands, about 140 acres of single family residential zoned lands, 40 acres of residential-agricultural zoned lands (1-acre lot sizes) and about 40 acres of A-40a zoned lands (the original zoning). The WTC plan will also include over 40 acres of park and open space areas. The initial phases of the WTC – which involve improvements to the commercial Parker Ranch Center – have already begun. The remainder of the WTC plan will be implemented over the next 15 to 25 years.

It is important to note that this Environmental Assessment (EA) applies to the land exchange only, and not the actual design or construction of the school. Because the exchange makes construction of a school on the site possible, general impacts relating to the use of the site as a school are described and evaluated. However, it is premature to evaluate more specific elements of school design such as detailed building layouts, utility requirements, access and traffic patterns, etc. At the appropriate time in the development process, the DOE will meet any additional requirements of Chapter 343, HRS. It is also important to note that the Waimea Town Center (which has undergone environmental analysis separately as part of the rezoning process) in no way depends upon the proposed exchange for fulfillment of its goals. Rather, the exchange would simply improve the design geometry of the Lindsey Road Extension.

1.3 Summary of Regulatory Requirements

This Environmental Assessment (EA) process is being conducted in accordance with Chapter 343 of the Hawaii Revised Statutes (HRS). This law, along with its implementing regulations, Title 11, Chapter 200, of the Hawaii Administrative Rules (HAR), is the basis for the environmental impact process in the State of Hawaii. 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 5 of this document lists these criteria and the preliminary findings made by the State of Hawaii Department of Education.

Accordingly, if this study concludes that no significant impacts would occur from implementation of the proposed action, then the Department of Education will issue a Finding of No Significant Impact (FONSI). If this study finds that significant impacts are expected to occur as a result of the proposed action, then an Environmental Impact Statement (EIS) will be prepared.

1.4 Public Involvement and Agency Coordination

The following agencies and organizations have been consulted during the Environmental Assessment Process:

County:

Planning Department County Council
Department of Public Works Police Department

State:

Board of Land and Natural Resources, Hawai'i Island Member
Department of Land and Natural Resources, Historic Preservation Division
Department of Land and Natural Resources, Na Ala Hele Program
Department of Land and Natural Resources, Land Management Division
Office of Hawaiian Affairs Waimea Elementary and Intermediate School

Private:

Waimea Main Street Program Waimea Community Association
South Kohala Traffic Safety Committee

Copies of communications received during preconsultation are contained in Appendix 1A. Four letters were received in response to the Draft EA during the 30-day comment period that ended October 23, 2001. The comment letters and responses to them are included in Appendix 1B. Information from these letters or any other source added to the Final EA is underlined with dotted lines in the text of the Final EA.

PART 2: ALTERNATIVES

2.1 Proposed Action

The proposed Action is described in Section 1.1 above, and the subject parcels and exchange area are illustrated in Figures 1-3.

2.2 No Action

Under the No-Action Alternative, no land exchange would occur, and the expansion of Waimea School would occur either through purchase or condemnation of this or nearby land, or through development of a non-adjacent property. The extension of Lindsey Road would be accomplished with a less than optimum design. This EA considers the No-Action Alternative as the baseline by which to compare environmental effects from the proposed exchange, and for the purposes of this EA, assumes that no development would occur on the site. No other alternatives appear able to satisfy the purpose and need for this action, which is to allow expansion of the Waimea School complex and accommodate a better design for Lindsey Road.

PART 3: ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

3.1 Basic Geographic Setting

The exchange properties are situated just mauka (east) of the existing Waimea Elementary and Intermediate School and the Kahilu Theater at about 2,680 feet in elevation (Figs. 1-2). The Parker Ranch property is used for pasture; the State property is vacant and has no current land uses.

The weather in this part of Waimea is cool, with frequent drizzle and fog. The average maximum daily temperature is approximately 75 degrees F., with an average minimum of 65 degrees. Annual rainfall averages approximately 75 inches in the heart of Waimea (U.H. Hilo-Geography 1998:57).

Geologically, the site is located on Holocene lava flows covered with ash deposits from Mauna Kea (MacDonald et al 1983:350-351; Wolfe and Morris 1996). The topography is gently rolling. The surface has weathered through time to produce deep, well-drained soils with low shrink-swell potential. The specific soil type found on the exchange area is Waimea Very Fine Sandy Loams (U.S. Soil Conservation Service 1973).

Lanimaumau Stream, an intermittent drainage that was used for irrigation in pre-Contact and historic times, ran directly through the Parker Ranch parcel until 1996, when it was diverted as part of a flood-control project. The area is primarily vegetated with introduced grasses and weeds, with scattered shrubs and trees (see Fig. 3 for site photos).

3.2 Physical Environment

3.2.1 Drainage, Flooding and Hazards

Environmental Setting

The project site is mapped on the Flood Insurance Rate Maps (FIRM) Panel No. 155166-0168E (Fig. 4). The current map shows Lanimaumau Stream, an intermittent drainage, and its associated floodplain traversing the property. The area shown on the map is depicted as Zones A and AE, which are defined as a Special Flood Hazard Area subject to inundation by the 100-year flood. In Zone AE, flood elevations have been determined in a Flood Insurance Study by detailed methods.

In 1996, Parker Ranch constructed a drainage channel to divert the Waimea and Lanimaumau streams from the Waimea commercial core. This diversion allowed the construction of the North Hawai'i community hospital, which was until that time within the existing drainageway. Parker Ranch is currently undertaking a LOMR (Letter of Map Revision) that will officially revise the FIRM maps in recognition of the alteration of the stream flow by this drainage channel. Once the map adjustments are approved and the LOMR is granted, the floodway designations within the exchange area will be eliminated.

The entire Big Island is subject to geologic hazards, especially lava flows and earthquakes. The exchange area's location on the margin of the extinct Kohala volcano and the dormant Mauna Kea volcano leads to a low risk level: Lava Flow Hazard Zone 8 (on a scale of ascending risk 9 to 1). Zone 8 areas have been free of lava flows for the last 750 years and have had only a few percent covered during the last 10,000 years (see Heliker 1990).

In terms of seismic risk, the entire Island of Hawaii 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.

Impacts and Mitigation Measures

In general, geologic and drainage conditions impose no substantial constraints on the proposed action. It is expected that the LOMR will have been granted by the time the Department of Education is ready to build a school, and no designated floodplain will be present on the exchange parcels. Although the region is exposed to some hazard from earthquakes, the action presents no additional hazard to the public and is not imprudent to undertake, because there is no alternative that would not have similar hazard exposure characteristics. All structures will conform to the Uniform Building Code

3.2.2 Flora and Fauna

Existing Environment

The exchange area was inspected for biological resources in September 2000. The general area was formerly a Koa' Ohi'a Montane Mesic Forest (Gagne and Cuddihy 1990), but is now primarily abandoned cattle pasture dominated by Kikuyu grass (*Pennisetum clandestinum*) and various introduced weeds. 'Ilima, (*Sida fallax*) was the only native plant species encountered. A complete species list is provided in Table 1. No threatened or endangered plant species were detected, and, based on the long history of human land use in the area, none were expected to be found. Because of the near-complete absence of native Hawaiian plants, the exchange area and surrounding areas site represent extremely poor potential habitat for any threatened or endangered vertebrate species.

The exchange area does not appear to contain any valuable ecosystems, or to offer suitable habitat for or harbor any such species. No listed, candidate or proposed endangered animal or plant species were found or would be expected in the area. In terms of conservation value, no botanical or zoological resources requiring special protection are present.

Impacts and Mitigation Measures

Because of the lack of native ecosystems and threatened or endangered plant species, no adverse biological impacts would occur as a result of the proposed action or any subsequent clearing and construction.

**Table 1
Plant Species in Exchange Area**

Scientific name	Common name
<i>Abutilon grandifolium</i>	Hairy Abutilon
<i>Agave sp.</i>	Agave
<i>Aloe sp.</i>	Aloe
<i>Chenopodium sp.</i>	Goosefoot
<i>Commelina diffusa</i>	Smooth Honohono
<i>Conyza bonariensis</i>	Hairy Horseweed
<i>Foeniculum vulgare</i>	Fennel
<i>Olea europea</i>	European Olive
<i>Pennisetum clandestinum</i>	Kikuyu Grass
<i>Ricinus communis</i>	Castor Bean
<i>Schinus terebinthifolius</i>	Christmas Berry
<i>Senecio madagascariensis</i>	Senecio
* <i>Sida fallax</i>	Ilima
<i>Sida rhombifolia</i>	Broomweed
<i>Tecoma capensis</i>	Cape Honeysuckle
<i>Verbena litoralis</i>	Verbena

* indicates native status

3.2.3 Air Quality, Noise, and Scenic Resources

Environmental Setting

Air pollution in the windward coastal South Kohala area is minimal, and is mainly derived from volcanic emissions of sulfur dioxide, which convert into particulate sulfate and produce a volcanic haze (vog) that occasionally blankets the district. The persistent tradewinds keep this area relatively free of vog for most of the year.

Noise in the general area is low and derived mainly from the adjacent school, and to a lesser extent, from the parking lot of the Kahilu Theater and Parker Ranch Center.

The exchange area has little scenic value in itself, although it offers good vistas of Mauna Kea. Several adjacent sites, including the existing Waimea Elementary and Intermediate School Site and the parking lot and entrance of the Kahilu Theater, view Mauna Kea at least partially over the site (Fig. 3). No important viewplanes or scenic sites recognized in the Hawai'i County General Plan, which recognizes a number of important vistas and

scenic landmarks in Waimea, are present (Hawai'i County Planning Department 1989: Exh. C, p. 34).

Impacts and Mitigation Measures

The proposed action would not affect air quality or noise levels. Future construction of the school and roadway have been accounted for in all planning documents for the area. No adverse air quality or noise impacts to or from the exchange area would be expected.

The proposed action would make it likely that a school would be built on a site that now is part of a view from the existing school and Kahilu Theater over a pasture towards Mauna Kea. The foreground of this view would be roadway and school grounds instead. Appropriate school landscaping would minimize any adverse impacts of this conversion. No important viewplanes or scenic sites recognized in the Hawai'i County General Plan would be affected.

3.2.4 Hazardous Substances, Toxic Waste and Hazardous Conditions

A Phase I Environmental Site Assessment was performed for the Waimea Town Center area in 2001 (PSI 2001) in order to determine if hazardous substances, toxic waste, or hazardous conditions were present. No permanent or temporary land use that would tend to result in these conditions appears to have ever occurred on the exchange area, which is pasture land. According to PSI:

“During the Phase I ESA site reconnaissance, the 4.988 acres of land located south of an adjacent to the Waimea Elementary and Intermediate Schools was traversed. This portion of land was vacant and undeveloped, and being used for grazing cattle by Parker Ranch. No evidence of a recognized environmental condition was observed...”

No hazardous substances, toxic waste or hazardous conditions appear to be present in any portion of the exchange area.

3.3 Socioeconomic and Cultural

3.3.1 Land Ownership and Land Use, Designations and Controls

Existing Environment

The 4.988-acre property that makes up most of the exchange area is part of a parcel owned by Parker Ranch. Surrounding land, including the portion of the State parcel that would be exchanged, is owned by the State of Hawai'i.

The State Land Use District for the entire exchange areas is Urban. County zoning is mixed, with the Parker Ranch land divided between the RM-5 (Residential Multi-Family) and the A-40a (Agricultural, 40-acre lot size minimum) zones (Fig. 5). The entire DOE exchange area is zoned A-40a. Adjacent zoning includes various urban classifications; the existing school site is zoned RS-7. The General Plan Land Use Pattern Allocation Guide Map LUPAG designation for the exchange area is Low Density and Medium Density Urban.

Impacts and Mitigation Measures

Once the Environmental Assessment process is completed and the land exchange approved in principle, Parker Ranch will undertake a consolidation and resubdivision to expand the school lot and reduce the Parker Ranch lot, with the approval and concurrence of DOE. At that time, the DOE will have the option of rezoning the property to an urban classification or seeking the necessary approvals to allow construction and operation of a school partially within in the A-40 zone. The roads proposed for the area are permitted uses in the Urban State Land Use District and all County zones present, and no rezoning would be required.

3.3.2 Socioeconomic Characteristics

Existing Environment: Social Characteristics

Waimea has been headquarters for Parker Ranch for over a century and a half. The growing town has a rich history and a dramatic setting in the misty uplands. A substantial area of Hawaiian Home Lands supporting farms and ranches is also present. The last twenty years have seen rapid growth in population and economic activity in Waimea. The charming cattle town is now also an enclave for transplanted mainlanders and a bedroom community for workers at the South Kohala resorts. Socioeconomic characteristics for South Kohala reveal a diverse community (Table 2).

Table 2
Selected Socioeconomic Characteristics, by Districts

CHARACTERISTIC	Hawai'i Island	South Kohala ¹	Waimea Town
Total Population	148,677	9,140 ¹	7,028
Percent Caucasian	31.5	52.3	30.6
Percent Asian/Pac Islander	37.9	21.0	35.9
Percent Hawaiian	11.2	24.2	15.0
Percent Under 18 Years	26.1	29.7	29.7
Median Age	38.6	32.0	36.5
Percent Over 65 Years	13.5	7.4	10.1
Percent Over 25 Years With High School Diploma ²	77.7	88.2	84.9
Percent Over 16 Years in Labor Force ²	64.2	66.3	72.7
Median Household Income ²	\$33,186	\$41,805	\$37,069
Percent in Poverty ²	14.2	10.3	10.4
Percent Lived in Hawaii in 1985 & 1990 ²	85.5	74.7	81.5
Percent Owner Occupied Housing ²	61.1	52.5	61.6
Median Contract Rent Value ²	\$428	\$786	\$684
Median Home Price ²	\$113,000	\$200,800	\$171,900

Source: U.S. Bureau of the Census: "1990 Census of Population. General Population Characteristics." 1990 CP-1-13 and "1990 Census of Population. Housing, Summary Population and Housing Characteristics." 1990 CPH-1-13. Notes: As of writing, 2000 census data is not fully released. ¹ Only total population is 2000 data ² All data is 1990

As indicated in Table 3, the rate of growth in South Kohala has been far greater than the average for the island as a whole, surpassing even that of North Kona.

**Table 3
Population Trends**

	1960	1970	1980	1990	2000
Hawaii County	61,332	63,468	92,053	120,317	148,677
South Hilo	31,553	33,915	42,278	44,639	47,386
North Kona	4,451	4,832	13,748	22,284	28,543
South Kohala	1,538	2,310	4,607	9,140	13,131

Sources: U.S. Bureau of the Census: "1990 Census of Population, General Population Characteristics," 1990 CP-1-13; Hawaii County Data Book. 2000 Census Data from CD-ROM PL-94-171, U.S. Bureau of the Census.

The combined enrollment of Waimea Elementary School and Intermediate School has risen to levels of about 1,200 students in the last decade (Hawaii County Data Book 1993, var. years.), and stood at 1,146 in June of 2001. The land exchange would allow for an approximately 18-acre middle school and an approximately 12-acre elementary school. These acreages will be consistent with Hawaii State Department of Education (DOE) standard guidelines.

Impacts and Mitigation Measures

No adverse socioeconomic effects would result from the proposed action, which would provide land for the desired expansion of the Waimea Elementary and Intermediate School facilities, benefiting the growing population of Waimea.

3.3.3 Archaeology, Historic Sites and Cultural Setting

Archaeology: Environmental Setting, Impacts and Mitigation Measures

A rich historic heritage comprising many historic sites from pre-Western Contact and historic times is evident in Waimea. Sites include field systems, irrigation features, ranch buildings, stone corrals and walls, kuleana sites, and historic buildings. During the period from 1970-2001, several archaeologists, including International Archaeological Research Institute, Inc., (IARII) conducted various studies involving the exchange area or nearby sites. Most pertinent to the exchange area are an archaeological investigation of the Kuleana Lots at Pukalani (State Historic Site 50-10-06-8812) (IARII 1997), and a Preservation Plan for archaeological and other historic sites present on a 390-acre area of Parker Ranch that included most of TMK 3-7-02:17 (IARII 2001). The foldout map in the March 8, 2001 letter from IARII to SHPD in App. 1a identifies historic sites in relation to the exchange area. The issue of archaeological and architectural historic sites for the majority of acreage within the exchange area was dealt with as part of these studies. The remaining areas (approximately 1.73 acres) had not been previously inventoried, and were therefore addressed during consultation with the State Historic Preservation Division (SHPD) as part of this Environmental Assessment.

The exchange area contains segments of two linear historic sites that traverse the central Waimea Town area. The first is Lyon's Auwai (Historic Site 50-10-06-9179), which is derived from an ancient irrigation auwai that was extensively modified at various times between 1792 and 1847. The second is a portion of a stone wall designated as Feature 1 of Historic Site 50-10-06-8808, a field system. Both of these historic sites were determined by SHPD to be important for data recovery, which has already been accomplished as part of a number of archaeological investigations. Consultation with SHPD has determined that the data recovery for the larger extent of the sites found outside the project area also mitigated for the effects of removing the portions of these sites that are contained on the exchange area (see letter from SHPD in App. 1a). Therefore, proper mitigation for impacts to these historic sites has occurred, and no direct impacts to significant historic sites would occur as a result of any clearing or construction that might ensue the proposed action.

Indirect impacts upon nearby historic sites were also been considered. IARII prepared a draft Preservation Plan for archaeological and other historic sites present on a 390-acre area of Parker Ranch that included most of TMK 3-7-02:17 (IARII 2001). This plan dealt with three clusters of historic sites that required consideration in the area: the Pukalani Stables (Historic Sites [50-10-06-] 8812, 19417, 19418, and 19419), a Bullock Pen (Historic Sites 21869, 21870 and 21871), and a preservation area for various agricultural features (Historic Sites 21855 and 8807). The measures that would be implemented as part of the Preservation Plan are meant to preserve key parts of both the traditional Hawaiian agricultural landscape and the ranching heritage of Waimea. As illustrated in the foldout map in the IARII letter, these sites are somewhat near the exchange area. The plan has been designed to minimize direct and indirect impact to these historic sites that would occur through development of the Waimea Town Center, which will result in development surrounding these sites (including the Lindsey Road Extension). The final version of the Preservation Plan, which has been under development since 1994, is undergoing review by the State Historic Preservation Division. The principal elements of this plan consist of short-term measures to protect designated historic sites during construction and monitoring for inadvertent finds, and long-term measures including buffer zones, active management for protection and restoration (as appropriate), interpretation and research.

Given implementation of the measures specified in the Preservation Plan, no indirect impact from the use of proposed use of the exchange area (as a roadway and a school) would be expected.

Cultural Resources: Environmental Setting

The traditional cultural value of the land on which the parcels are located was assessed by determining whether the exchange area supported any traditional gathering uses, were vital for access to traditional cultural sites, or had other important symbolic associations

for native Hawaiians. The land in many parts of Waimea, including the exchange area, has a long history of exclusive dedication to ranching. The IARII report (1997) on the nearby Pukalani Stables area (see foldout map of March 8, 2001 IARII letter in App. 1a) included research on the cultural context of the area, and is the source of much of the information that follows in this section.

The exchange area is located within the *'okana* (district) of Kohala, in the *ahupua'u* of Waimea, within the *'ili* of Waikoloa. According to IARII (1997), there is little information on traditional Hawaiian settlement patterns and land use prior to the major changes wrought by Western introduction of goods, diseases, animals and cultigens. Kamehameha I gave management rights of Waikoloa to Isaac Davis, who later passed it to his son Hueue Davis. Early historical sources give the impression of scattered settlement along Waikoloa Stream. Even as late as 1823, after disease had likely decimated the population, as many as 1,200 people lived in the three miles between *'Ouli* and *Pu'u Kapu*, with perhaps 300 in Waimea town itself (Ibid: 11). With a network of irrigation canals (*'auwai*) and relatively good soil, irrigated agriculture of taro, sweet potatoes and sugar cane was successfully practiced. Hundreds of parcels were claimed in Waimea as part of the Land Commission Awards (LCAs) associated with the Mahele in the mid-19th century, many near Waikoloa Stream.

Although there were evidently many Hawaiian residents of Waimea who possessed land capable of supporting traditional Hawaiian land use, the institution of a Western monetary system undermined the traditional economic basis and dramatically altered society. The harvest of wild sandalwood in the early 19th century and of *pulu* (the fluffy orange coating around tree fern shoots, which served as a stuffing for mattresses and pillows) later in the century were both economically and environmentally disastrous. Chinese immigrants began growing and milling sugar cane in Waimea in the early 1830s. This production tapped into the existing *'auwai* system. Plantation leases and mills were bought and sold, and the net result was to displace many Hawaiians who had lived in areas desired for fields. Cotton farming and ginning, sawmills, and various other economic ventures had their day on the landscape of Waimea, but the venture that brought lasting change was cattle.

The cattle brought by Captain Vancouver in 1793 and 1794, protected by a kapu placed on them by Kamehameha, multiplied rapidly. By the time the kapu was lifted a few years later, wild cattle had become rampant throughout the island, disturbing native gardens and damaging streams, grasslands and forests. Foreign bullock hunters were then employed to keep the herds under control. Although the meat was eaten, the main economic products were the hides. John Parker worked for Governor Kuakini as a bullock hunter in 1831, and before long had founded the famous ranch that still bears his name. By 1847, as Reverend Lorenzo Lyons noted, "two thirds of Waimea has been converted into a government pasture land" (quoted from Doyle 1945:48 in IARII 1997:19). Cattle ranching profoundly changed life in Waimea by displacing native agriculture, firmly establishing a monetary economy, altering the landscape and forests through direct and indirect means, and bringing in foreigners.

During the 19th and 20th centuries, the exchange area was used for cattle ranching and extensive agriculture. An aerial photo of Waimea from 1925 (IARII 1997:30) shows little but pasture in the general vicinity of the exchange area. The 1997 IARII report, which specifically covered several kuleana lots at Pukalani, some 1,600 feet northeast of the exchange area, included the results of extensive oral histories. Individuals knowledgeable about the historical and cultural resources of the area, some of whom remembered events as early as 1914, were interviewed about historic sites, potential burials, and traditional practices of this cattle ranching area. No valued natural, cultural or historical resources appear to have been identified within the pastured exchange area. To the informants' knowledge, burials were restricted to several already known small, family cemeteries. There is no evidence of traditional activities on or near the exchange area, whether for gathering, ceremonial, or access purposes.

Cultural Resources: Impacts and Mitigation Measures

Based on the extensive archaeological, historical and oral history review undertaken by IARII (1997), it would appear that there are no Traditional Cultural Properties or valued cultural, natural or historical resources within the exchange area. It is reasonable to conclude that based upon the lack of resources, 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.

3.3.4 Agricultural Land

Existing Environment

The exchange area has a gently rolling surface with covered by Mauna Kea ash, which has weathered through time to produce a deep, well-drained soils known as Waimea Very Fine Sandy Loam (Wolfe and Morris 1996; U.S. Soil Conservation Service 1973). The agricultural utility of the land was assessed in the 1970s by the U.S. Soil Conservation Service and mapped as part of the *Agricultural Lands of Importance to the State of Hawaii* (ALISH) map series. Three categories of valuable agricultural land are identified: Prime, Unique, and Other (Baker 1976:4). Prime Land "has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops economically when treated and managed . . . according to modern farming methods" (Ibid:2). The entire exchange area is considered Prime Land, suitable for pasture and other agriculture.

Impacts and Mitigation Measures

The entire area is identified in the General Plan for urban uses. The removal of this area from agricultural purposes has thus been evaluated as part of rezoning actions that considered the context of the region, which contains thousands of acres of Prime, Unique and Other Important Agricultural Land. No adverse impact to agriculture or agricultural land will occur.

3.4 Public Facilities

3.4.1 Recreational Facilities

Existing Facilities and Impacts

Several recreational facilities are present in Waimea, including Waimea County Park and Waimea Civic Center. In addition, the Kahilu Theater and the fields of Waimea Elementary and Intermediate Schools are located adjacent to the exchange area. The proposed exchange would not induce any adverse effects upon any of these facilities, and if the school grounds are expanded, there is a strong potential for addition of recreational space.

3.4.2 Educational Facilities

Existing Facilities and Impacts

Waimea Elementary and Intermediate Schools are immediately adjacent to the exchange area, and the beneficial impact of accommodating the expansion of these schools is the principal reason for the proposed exchange. Waimea also supports several private schools, including Parker School, Hawai'i Preparatory Academy, and Hawai'i Montessori School, none of which are located near the exchange area nor would be affected by the action.

3.4.3 Medical Facilities

Existing Facilities and Impacts

North Hawai'i Community Hospital is located on Highway 19 in Waimea, about a quarter mile from the exchange area. The proposed action would have no adverse impact upon the hospital or any other medical facility.

3.4.4 Electrical, Telephone and Cable Services

Existing Facilities and Services

Electrical power on the island of Hawai'i is provided by Hawai'i Electric Light Company (HELCO), a privately owned utility company regulated by the State Public Utilities Commission, via their island-wide distribution network. As of the beginning of the year 2000, HELCO had a total of 52,277 residential customers and an additional 10,201 General Load, Commercial Cooking and Heating, Large Power Service, and Street Lighting accounts (Hawai'i County R&D: 2000). HELCO's distribution system principally of overhead (with limited underground) transmission lines. Overhead lines typically consist of 46 kilovolt (kV) or 12.47 kV primary circuits routed largely along highways and roadways.

Telephone and cable television services are available within various areas of the island. Such services are provided by Verizon Hawaii (formerly GTE Hawaiian Tel), and Sun Cablevision (in West Hawai'i). Services are distributed via both underground and overhead lines following highways and roadways.

No overhead or underground electrical, telephone or CATV utility lines are present on or near the exchange area.

Impacts and Mitigation Measures

The proposed action would not have any substantial on existing electrical facilities or HELCO's ability to provide electricity. No overhead or underground electrical, communication, and cable television facilities would be affected by this project. Appropriate coordination with these utility companies will be conducted during the design and construction of this school in order to establish new services and minimize disruptions existing services.

3.4.5 Water Supply

Existing Facilities and Impacts

Potable water in the Waimea area is provided by the County of Hawai'i Department of Water Supply (DWS). Waterlines are generally buried underground and are often routed along roadways. No waterlines exist in the area, and no aspect of water service would be impacted by the proposed action. Appropriate coordination with DWS will be conducted during the design and construction of this school in order to establish new service.

3.4.6 Wastewater

Existing Facilities and Impacts

As is the case with most of the island outside the core of Hilo and Kailua-Kona, Waimea currently lacks municipal wastewater service and depends on cesspools and septic tanks. As part of its WTC development, Parker Ranch has constructed a Sewage Treatment Plant (STP) and transmission lines to serve a portion of Waimea. There is a temporary sewer line within the exchange area, which will be relocated by Parker Ranch. The wastewater system is privately owned and maintained by Parker Ranch. If the DOE desires to connect to this system in the future, the sewer service area will require expansion to include the school site. In any case, the DOE will undertake coordination with Parker Ranch and the Hawai'i State Department of Health (as well as the Hawai'i County Department of Public Works, Wastewater Division, as appropriate), during the design and construction of this school in order to determine the appropriate wastewater system.

3.4.7 Stormwater Drainage Facilities

Existing Facilities and Impacts

No stormwater conveyance systems, such as culverts, inlets, catch-basins, and storm sewer lines, are present in or near the exchange area or would be affected in any way by the proposed action. Appropriate coordination with the Hawai'i County Department of Public Works will be conducted during the design and construction of this school in order to determine the appropriate stormwater drainage facilities.

3.4.8 Solid Waste

Existing Conditions and Impacts

Residential and commercial solid waste from Waimea is hauled directly or via transfer stations to the landfill at Pu'uana'hulu in North Kona, which is operated by the Hawai'i County Department of Public Works (DPW). In addition, there are several green waste facilities within the County. At Pu'uana'hulu, the initial 30-acre increment of the 300-acre landfill was opened in 1993 with a projected capacity of six to eleven years. Additional 30-acre increments are expected to be required every five years thereafter. The proposed action would not create any long-term increases in the generation or disposal of solid waste.

3.4.9 Transportation Facilities

Existing Facilities

No public roadways exist near the exchange parcels. It is important to note that optimizing the geometry of the future Lindsey Road Extension, which will be built by Parker Ranch and dedicated to the County of Hawai'i, is the secondary reason for the proposed land exchange. In addition, a public roadway will also be built across the middle of the exchange area (see Fig. 1).

Impacts and Mitigation Measures

The proposed action will benefit the transportation infrastructure of Waimea by facilitating an alternate route around the center of Waimea. The project has been reviewed by and received support from the South Kohala Traffic Safety Committee (see letter of 3 November 2000, App. 1A)

Construction and operation of the school is expected to have short-term and long-term traffic impacts. In response to a preconsultation letter, the Hawai'i County Police Department acknowledged the importance of the proposed Waimea Town Center roads in addressing overall circulation problems in Waimea. However, the Department expressed concern that:

“...adequate area for parent and buses to drop off students and minimize students crossing roadways should be considered. We recommend a one-way in/out with drop off for school traffic.” (see letter of 25 October 2000, App. 1A).

While it is premature to discuss design details of the layout of the school that is expected to be built on land provided as a result of the proposed action, DOE planners have been made aware of the recommendation and will include consideration of it in the school's design.

3.4.10 Police and Fire Services

Existing Facilities/Services and Impacts

The Hawai'i County Police Department (HCPD) has law enforcement jurisdiction throughout the entire island of Hawai'i. HCPD is headquartered in Hilo, with a station in Waimea as well. The Hawai'i County Fire Department (HCFD) has fire protection jurisdiction throughout the entire island of Hawai'i. A station is present in Waimea. Firefighters must respond to emergency medical, hazardous condition, rescue, building fires, brush and other outdoor fires, and vehicle fires. The proposed action is not expected to have any adverse impact upon police or fire services. The expansion of the road network and decrease in congestion will assist these agencies in responding to calls.

3.5 Secondary and Cumulative Impacts

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 principal existing or planned project with the potential to have combined effects with the proposed project is the Waimea Town Center that Parker Ranch plans to build in the immediately adjacent region. The eventual use of this land as a school has been an integral consideration in planning efforts for Waimea Town Center. In order to avoid any conflicts in land use needs, Parker Ranch has planned to assist the DOE in obtaining the land it might require for school expansion; the proposed action is a result of this planning. The road system, land use types, drainage improvements, historic site preservation, and other aspects of the Waimea Town Center have been designed to accommodate the expected school traffic, noise, and land use requirements. Cumulative impacts have thus been considered, and avoided, as part of planning.

3.6 Required Permits and Approvals

The proposed action does not require any approvals or permits other than approval of a Land Exchange by the Hawai'i State Board of Land and Natural Resources. The proposal is also subject to disapproval by the State Legislature. In the future, if a school is built on the site in accordance with current plans, several other permits will be required:

County of Hawaii:

- Change of Zone (potential)
- Grading and Grubbing Permits
- Building Permits
- Plan Approval

State of Hawaii

- National Pollutant Discharge Elimination System Permit

3.7 Consistency With Government Plans and Policies

The 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 land exchange would promote these goals by providing land for the desired expansion of a public education facility and optimizing design for a public roadway.

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. All of the exchange area is within the Urban District, and the proposed uses as a school and a road are permitted uses.

Hawai'i County General Plan. 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. 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. Section 4 of the *General Plan* includes a discussion of general goals. In Section 5 courses of action for individual districts are proposed. The following are relevant:

Transportation Goals:

1. Provide a transportation system whereby people and goods can move efficiently, safely, comfortably and economically.
2. Make available a variety of modes of transportation which best meets the needs of the County.
3. Provide a system of thoroughfares and streets for the safe, efficient and comfortable movement of people and goods between and within the various sections of the County.
4. Provide an integrated State and County system so that new major routes would complement and encourage proposed land uses.

Transportation Policies:

1. A framework of transportation facilities which would promote and influence desired land use shall be established by concerned agencies.
2. The agencies concerned with transportation systems should provide for present traffic and future demands, including mass transit programs for high growth areas.
3. The improvement of transportation service shall be encouraged.

Land Use Goals

1. Designate and allocate land uses in appropriate proportions and mix and in keeping with social, cultural, and physical environments of the County.
2. Protect and encourage the intensive utilization of the County's important agricultural lands.

Land Use Policies

1. Zone urban and rural types of uses in areas with ease of access to community services and employment centers and with adequate public utilities and facilities. The agencies concerned with transportation systems should provide for present traffic and future demands, including mass transit programs for high growth areas.

Specific Courses of Action: South Kohala.

1. Department of Education shall develop a master plan for Waimea School which provides for an expanded intermediate school, improved access and parking areas.

In improving the transportation system, providing an appropriate location for a needed public service, and specifically responding to a recommended Course of Action, the proposed action is highly consistent with the *Hawai'i County General Plan*.

It should be noted that the *Hawai'i County General Plan* is currently in the final stages of a periodic update. The proposed action is unlikely to be inconsistent with any aspect of the update.

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 exchange area is designated on this map as Low and Medium Density Urban. The proposed action, and the construction of the school that may result from it, are consistent with this designation.

PART 4: DETERMINATION

The Hawai'i State Department of Education has determined that the proposed project will not significantly alter the environment, as impacts will be minimal, and that Environmental Impact Statement is not warranted. Therefore, it has issued a Finding of No Significant Impact (FONSI).

PART 5: FINDINGS AND REASONS

Chapter 11-200-12, Hawaii 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 involved, committed or lost.
2. *The proposed project will not curtail the range of beneficial uses of the environment.* No restriction of beneficial uses would occur.
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 basically environmentally 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 not have any substantial adverse effect on the economic or social welfare of the South Kohala community or the State.
5. *The proposed project does not substantially affect public health in any detrimental way.* The project will not affect public health and safety in any way.

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 would simply provide a space for already existing school students.
7. *The proposed project will not involve a substantial degradation of environmental quality.* The project is minor and environmentally benign, and it 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 site supports overwhelmingly alien vegetation. No rare, threatened or endangered species of flora or fauna are known to exist on the project site, and none would be affected by the proposed action.
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 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. Planning for the Waimea Town Center, a proposed development adjacent to the school, has taken joint impacts such as drainage, traffic, noise and other aspects into account in the design and location of planned facilities.
10. *The proposed project will not detrimentally affect air or water quality or ambient noise levels.* No adverse effects on these resources would occur.
11. *The project does not affect nor would it likely to be damaged as a result of being located in environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal area.* Although the exchange area is located in an area exposed to some hazard from earthquakes, the project presents no additional hazard to the public and is not imprudent for the landowner. A former floodplain associated with Lanimaumau Stream has been removed through re-routing of the intermittent drainage that formerly passed through the area.
12. *The project will not substantially affect scenic vistas and viewplanes identified in county or state plans or studies.* No County or State plan, including the Hawaii County General Plan, identifies important views in this area. The project will not impair views of Mauna Kea.
13. *The project will not require substantial energy consumption.* Although the proposed action will require no energy, construction of the school will involve energy consumption. No adverse effects would be expected.

For the reasons above, the proposed Action will not have any significant effect in the context of Chapter 343, Hawaii Revised Statutes and section 11-200-12 of the State Administrative Rules.

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APPENDIX 1A

COMMENT LETTERS

FROM AGENCIES AND ORGANIZATIONS

IN RESPONSE TO PRE-CONSULTATION

*South Kohala Traffic Safety Committee
John B. Ray, Chair
P. O. Box 1680
Kamuela, HI 96743-1680*

November 3, 2000

Ron Terry, Ph.D.
GEO METRICIAN
HC 2 Box 9575
Keāau, HI 96749

RE: Environmental Assessment for Proposed Land
Exchange Between Parker Ranch (TMK 6-7-2:17
[por.]) and State of Hawaii (TMK 6-7-2:15 [por.]),
South Kohala District, Island of Hawaii

Dear Dr. Terry:

Thank you for the opportunity to comment on the proposed land exchange. The South Kohala Traffic Safety Committee has been meeting for over (30) years continuously to review traffic safety/impact issues in the South Kohala District.

We have worked with Parker Ranch for many years to help develop better and safer road circulation in the Waimea area. We strongly support the land exchange as it will greatly improve the traffic situation surrounding Waimea Elementary and Intermediate Schools, as well as traffic circulation for the Community in general.

Thanks for soliciting our input and we would like to receive a copy of the EA when completed.

Very truly yours,



John B. Ray, Chair
South Kohala Traffic Safety
Committee

JBR/ba



NA ALA HELE
Hawaii Trail & Access System

October 16, 2000

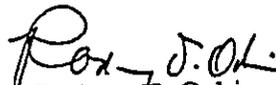
Ron Terry, Ph.D.
Geo Metrician
HC 2 Box 9575
Keaau, HI 96749

Dear Mr. Terry:

SUBJECT: Environmental Assessment for Proposed Land Exchange Between Parker Ranch, TMK 6-7-2:17 (por.) and State of Hawaii, TMK 6-7-2:15 (por.), South Kohala, Island of Hawaii

Na Ala Hele is not aware of any issues within its purview concerning the proposed land exchange between Parker Ranch and the State of Hawaii, Department of Education.

Sincerely,


Rodney T. Oshiro
Na Ala Hele



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
P.O. BOX 621
HONOLULU, HAWAII 96809

AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND DIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

December 7, 2000

LD-NAV
Ref.: PARKERRANCHLX.RCM

Mr. Ron Terry, Ph.D.
GEO Metrician
HC 2 Box 9575
Keaau, Hawaii 96749

Dear Mr. Terry:

SUBJECT: Pre-consultation for Environmental Assessment for
Proposed Land Exchange between Parker Ranch and State of
Hawaii, South Kohala, Hawaii TMK: 6-7-2: 15 & and por 17

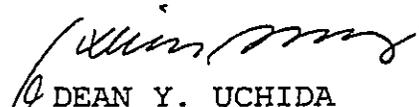
Thank you for the opportunity to review and comment on the
subject matter.

Attached herewith is a copy of our Land Division Engineering
Branch comment.

Please contact Mr. Harry Yada of our Hawaii District Land
Office at 808-974-6203 for further instructions for completing
the land exchange.

The Department has no other comment to offer on the subject
matter at this time. Should you have any questions, please feel
free to contact Nicholas Vaccaro of the Land Division's Support
Services Branch at 808-587-0438.

Very truly yours,


DEAN Y. UCHIDA
Administrator

C: Hawaii District Land Office

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii

October 18, 2000

LD/NAV
Ref.: PARKERRANCHLX.COM

Suspense Date: 11/1/00

MEMORANDUM:

TO: XXX Division of Aquatic Resources
XXX Division of Forestry & Wildlife
XXX Division of State Parks Recreation
XXX Historic Preservation Division
Natural Area Reserve System
XXX Commission on Water Resource Management
Land Division Branches of:
XXX Planning and Technical Services
XXX Engineering Branch
OOO Hawaii District Land Office)
Shoreline Processing Services

FROM: Dean Y. Uchida, Administrator
Land Division

SUBJECT: Pre-Consultation for Preparation of Draft Environmental
Assessment for Proposed Land Exchange between Parker Ranch and
State of Hawaii covering Land under Executive Order to the
Department of Education, South Kohala, Hawaii, TMK: 6-7-2:15

Please review the attached materials and submit your comments (if any) on
signed and dated Division letterhead within the suspense date. Should you
need more time to review the subject matter, please contact Nick Vaccaro
at ext.: 7-0438.

If this office does not receive your comments on or before the
suspense date, we will assume there are no comments.

() We have no comments.

(X) Comments attached.

Signed: *Ein Grass*
for ANDREW M. MONDEN, CHIEF ENGINEER

Date: 10/27/00

OCT 27 9 00 AM '00

00 OCT 20 PM 09:36 INTR & LRD

DLNR-LAND DIVISION
ENGINEERING BRANCH

PROJECT SUMMARY

Attached is a Pre-Consultation for Preparation of Draft Environmental Assessment dated October 6, 2000, prepared by Ron Terry for the State Department of Education and Parker Ranch for the proposed Developmental Agreement that would involve the exchange of Parker Ranch Land for the State Land that is currently under Executive Order to the DOE. The proposed land exchange in Waimea, South Kohala is located on land identified by Tax Map Keys 6-07-02:17 and 6-07-02:15 which are owned by Parker Ranch and State of Hawaii, respectively.

The exchange would have Parker Ranch dedicate 4.988 acres of land to the State of Hawaii, while the State would dedicate 0.78 acre to Parker Ranch.

The purpose of the land exchange is to allow expansion of the Waimea School site and to accommodate separate campuses for Waimea Elementary and Waimea Intermediate Schools and to improve the design of the proposed extension of the Lindsey Road.

DLNR-LAND DIVISION
ENGINEERING BRANCH

COMMENTS

LD/NAV

Ref.: PARKERRANCHLX.COM

The proposed land exchange does not affect our current projects and programs.

Please note that the project site, according to FEMA Community Panel Numbers 155166
0167 C, is located in Zone X. This is an area determined to be outside 500-year flood plain.

Stephen K. Yamashiro
Mayor



James S. Correa
Deputy Police Chief

County of Hawaii
POLICE DEPARTMENT

349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (HIL) 961-2702

October 25, 2000

Mr. Ron Terry, Ph.D.
Geo Metrician
HC 2 Box 9575
Keaau, HI 96749

Dear Mr. Terry:

SUBJECT: ENVIRONMENTAL ASSESSMENT FOR PROPOSED LAND EXCHANGE BETWEEN
PARKER RANCH (TMK 6-7-2:17 [POR.]) AND STATE OF HAWAII (TMK 6-7-2:15
[POR.]), SOUTH KOHALA DISTRICT, ISLAND OF HAWAII

Staff has reviewed the Environmental Assessment for the above-referenced proposed project and offers the following comments:

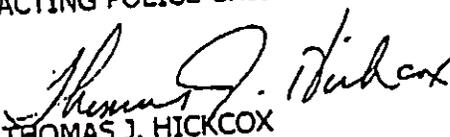
The concern facing the Police Department is in the area of traffic vs. pedestrians in the area of the school. At an optimum, adequate area for parents and buses to drop off students and minimize students crossing roadways should be considered. We recommend a one-way in/out with drop off for school traffic.

The completion of the roadways as proposed would assist in preventing traffic congestion during peak hours (mornings and evenings) and allow multiple ingress and egress locations.

Thank you for the opportunity to comment.

Sincerely,

JAMES S. CORREA
DEPUTY POLICE CHIEF
ACTING POLICE CHIEF


THOMAS J. HICKCOX
ASSISTANT POLICE CHIEF
FIELD OPERATIONS BUREAU

W.

934-0162

International Archaeological Research Institute, Inc.

PREHISTORIC & HISTORIC INVESTIGATIONS • CULTURAL RESOURCES ASSESSMENTS & PLANNING • PALEOENVIRONMENTAL STUDIES

March 20, 2001

Dr. Ross Cordy
Archaeology Branch Chief
State Historic Preservation Division
Kakuhihewa Building, Rm 555
601 Kamokila Blvd.
Kapolei, Hawaii 96707

SUBJECT: Land Exchange Between State of Hawaii and Parker Ranch Trust, Waimea,
South Kohala, Island of Hawaii; TMK: 3rd. Div. 6-7-02: 15 & 17 (portion).

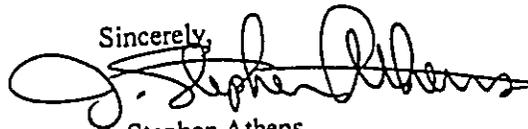
Dear Dr. Cordy:

I have been asked to evaluate possible historic preservation compliance requirements for the above parcel, which is illustrated on two attached maps. You will note that one map is a land survey map depicting the parcel in question, and the other map illustrates the exchange parcel on the Waimea Town Center (WTC) data recovery project map. From this latter map you will note that portions of the parcel fall outside the boundary of the data recovery project area. It appears, therefore, that these areas, amounting to 1.73 acres (by our calculations), have not been previously inventoried for archaeological resources. As can be seen, traditional irrigation canal features cross the uninvestigated portion of the parcel at two points. This is apparently a segment of the Lyon's Auwai (Site 9179). There is also a portion of a stone wall that is documented on our WTC project map. This wall is recorded as Feature 1 of Site 8808 (the field system). I am attaching a portion of our WTC data recovery report concerning canal features so that you can have some understanding of the status of our research on canal features in the WTC project area.

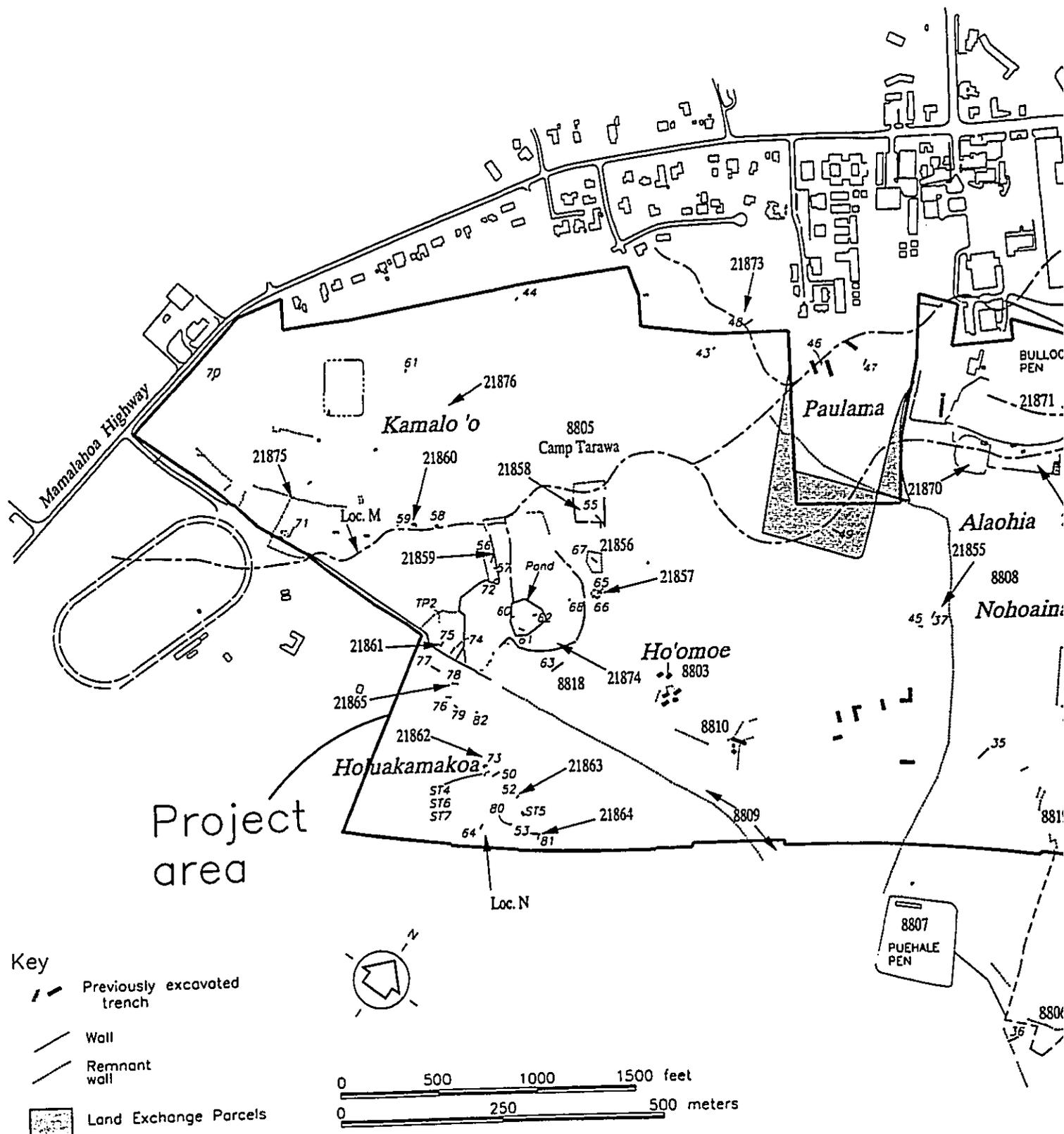
Since archaeological data recovery has been completed within the WTC project area (pending submittal of the report), presumably there is not a concern with further archaeological investigation of the portion of the exchange parcel that falls within this area. However, we are unclear as to how the *unsurveyed* portion should be treated, or whether you might regard presently available information as sufficient documentation. If not, should we perform a surface survey, and would subsurface testing also be needed to bring the level of documentation up to inventory status? Perhaps if such documentation is needed, it would be acceptable to provide a report documenting primarily the new field and laboratory investigations, but refer to the larger WTC data recovery report for a full discussion of the project area historical and archaeological background literature.

Your attention to this matter will be greatly appreciated. Our client, Parker Ranch Trust, urgently needs to conclude arrangements for the land exchange with the State, and are hopeful that this matter can be taken care of as expeditiously as possible. Thank you for your consideration.

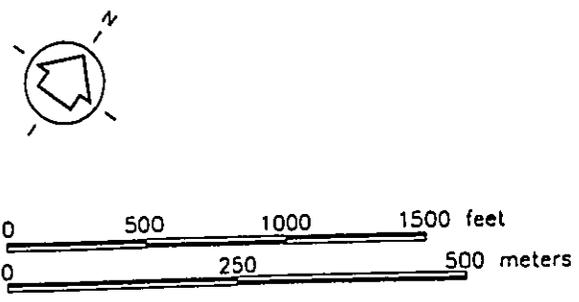
Sincerely,

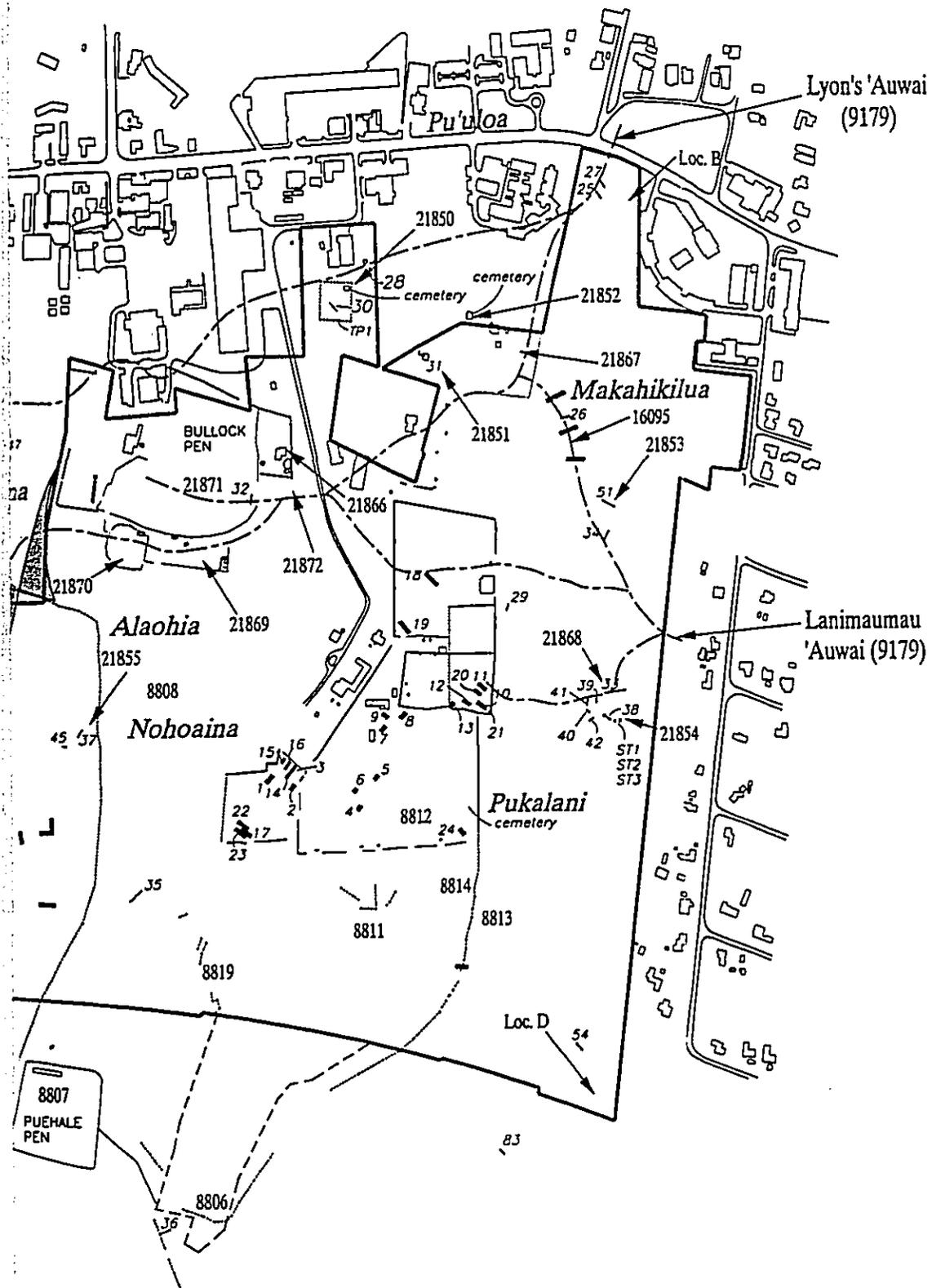


J. Stephen Athens
IARII General Manager



- Key
-  Previously excavated trench
 -  Wall
 -  Remnant wall
 -  Land Exchange Parcels





IRRIGATION CHANNELS

Clark's (1983b:258-259 and 1987:545-554) assertion that many of the upper Waimea Plain irrigation ditches originally were used to provide water for pre-contact, traditional Hawaiian taro agriculture is based largely on 1) spatial association of irrigation features with radiocarbon and volcanic glass dated pre-contact residential sites; 2) comparable association with field ridges at Site 8808; and 3) a strong Hawaiian cultural preference for taro over sweet potatoes. However, establishing an unambiguous time frame for the origin of these features has proven to be difficult. Several studies, including the present one, have attempted to date *'auwai* features directly, with indifferent success.

As can be seen in Tables 21 and 22, temporal data on upper Waimea Plain irrigation features are ambiguous. Accepted at face value, radiocarbon aged *'auwai* deposits (Table 21) appear to indicate prehistoric origin for the features. Indeed, the sediment sample from Site 16095, returned a *very early* date which, uncritically accepted, would lead to the belief that irrigation was practiced on the Waimea Plain essentially coincident with the earliest occupation of the islands; this even though the ditch is a fairly minor feature connecting two historically documented *'auwai* (Lanimaumau to Lyons'). Other radiocarbon dates fall into a more reasonable prehistoric time frame but still suffer from uncertainties inherent in relating a water-bearing feature to a burn event(s). In two cases (Sites 8808 Trench 45, and 16095 Trench 26), the most probable sources of the dated charcoal are prehistoric deposits a short distance upslope. Unnumbered *'auwai* "G" is stratigraphically associated with bottle glass and appears functionally linked to the historical bullock pen. Clark's BHT *'auwai* exposure is stratigraphically superior, and hence younger, than the ridge and field to which it ostensibly supplied water. Because carbon and sediment deposits in irrigation features are transported and redeposited from elsewhere, radiocarbon estimates based on them must be considered inherently unreliable. At best, they establish a oldest possible age, but the temporal relationship between the samples and use of the features themselves is nearly impossible to know accurately.

Stratigraphic evidence from the WTC project also casts doubt on the notion that irrigation channels on the upper Waimea Plain were part of an integrated, contemporaneous irrigation system resulting from expansion in scope and complexity of a field system over a period of centuries. Tephra-rich sediments in the project area are excessively well drained and highly erodable. While erosive action is evident in examined *'auwai*, none of the ditches display evidence of reconstruction or maintenance that would have been required if used over a long period of time. All examined ditches exhibited sidewalls that had been eroded during a rapid infilling process in which a single alluvial episode (i.e., one erosional/depositional event). Profile exposures indicate that most ditches filled with sediment during their first period of use and subsequently carried a much reduced, and continually decreasing, volume of water. If these *'auwai* had provided supplemental irrigation as previously argued, the limited deposits within them signify, at most, only a few seasons of use before abandonment. This conclusion regarding a short period of use was also reached by other researchers in the Waimea region (see S. Clark et al. 1990:41; Reeve 1983:190).

Given abundant historical documentation for development of the irrigation network on the upper Waimea Plain, presence of historical debris and other indicators of post-field ridge development shown in Table 22 is easy to understand. Accordingly, the upper Waimea Plain irrigation features *are not* believed to be related to pre-contact agriculture, but rather an historic period phenomenon linked to development of local and international trade networks in the 1800 and 1900s. Marginal climatic conditions for taro production; poor irrigation qualities of Waimea Plain sediments; and presence of non-irrigated agricultural alternatives (e.g., sweet potato) may have substantially diminished the probability of irrigated agricultural practices during the prehistoric period in all but the most limited sense. Availability of steel tools, wider variety of cold-tolerant crops, growing market demand, and documented presence of the irrigation network during the 1800s combine to suggest that the upper Waimea Plain irrigation network dates to the historic period with little or no greater temporal depth.

A Proposed Historical Sequence for Development of the Waimea Irrigation System

There are two major *'auwai* within the project area that once directed water into lesser irrigation channels on the Waimea Plain. The older of the two is referred to in this report as Lanimaumau Ditch. The second major ditch is Lyon's *'Auwai*. These ditches are a portion of the *'auwai* remnants mapped by Wright (1914a) and Wall (1915) and documented by Clark (1987). They are still visible on the surface of the project area.

The present archaeological configuration of irrigation channels landscape may be the result of approximately five construction and/or reuse events taking place between ca. 1792 and 1947. On each occasion, relatively rapid abandonment of irrigation ditch systems followed due to the inherent difficulties of maintaining the systems on the Waimea Plain

The oldest irrigation system appears to have been in place prior to 1818; the year in which a major boundary wall was constructed across its central ditch downslope west of the WTC project area (BCR 1865:7, 9, 10; see Reeve 1983:235-237). This system was part of a substantial undertaking that involved extending a ditch approximately 8 km (5 miles) from its source at Pu'u Holoholoku to Lihue, and from Lanimaumau within the WTC project area (see Kaelemakule 1866).

Irrigation of traditional Hawaiian dry-land crops represents a large expenditure of human labor generated by a punctuated need to intensify and/or expand production. The downslope location, apparent short use period, and abandonment prior to 1818, is consistent with Kamehameha's undertakings at Kawaihae as proposed by Barrère (1983:27; also see Clark 1987:548). Barrère proposed two periods of expanded production (1791-92 and 1794-95) based on Kamehameha's presence at Kawaihae. Construction of the system is assumed to have begun immediately prior to the need, and production continued corresponding to the presence of workers at Kawaihae until about 1802. The system was abandoned sometime prior to 1818 and there was no irrigation system evident to observers in 1828 who were interested in documenting such infrastructure.

The second irrigation construction event was related to commercial production of sugar, which commenced in 1835 under the impetus of Kuakini. Associated with this commercial agriculture were ditches for irrigation and power for sugar mill's rollers. It is likely that Kuakini decreed restoration of the Lanimaumau Ditch as a main irrigation source and promoted construction of additional new ditches to supplement the original ditch system. Akona's 'Auwai, which leads to the mill and bears the name of one of the mill's first owners, was most likely constructed at this time.

Stratigraphic evidence indicates a short period of use for these *second system* ditches. Branches of the Lanimaumau Ditch that had extended into the *kuleana* lots at Pukalani (Site 8812) were abandoned prior to 1847 when enclosing walls blocked these water courses.

Circumstantial documentary evidence suggests that political struggles over the management of land in 1850 required construction of a third irrigation network centering on Lyon's 'Auwai. This ditch was constructed in approximately 1850 as a new primary source bypassing the Lanimaumau source. Lyon's 'Auwai was constructed along the Waikoloa/Pu'u Kapu boundary, thereby avoiding land under control of the opposing political faction. As detailed previously, evidence suggests that the Lyon's system was abandoned prior to 1862. Definitive evidence indicates that most of this system had ceased to carry water by 1867.

The fourth system again focused on Lanimaumau Ditch. It transported water through Site 8812, bisecting the WTC project area. In the early 1900s, ponds were constructed at each end of the project area, presumably to maintain a supply of water for livestock. Cultivation of corn and hay was also attempted in the project area around this time, which may have used water from Lanimaumau Ditch for irrigation. Unfortunately, twentieth century maintenance of Lanimaumau Ditch using heavy equipment obliterated archaeological deposits associated with original construction of this main source ditch. The enlarged ditch continued to convey water until the mid-1950s.

In 1946-1947, new main source ditches were constructed for irrigation of the Lihue/Lalamilo Farm Lots constituting the fifth irrigation episode on the upper Waimea Plain. Evidence from Trenches 54, 64, and 80 during the WTC data recovery project indicates that this modern ditch irrigation network also was abandoned after a short period of use.

In sum, the preponderance of evidence supports development of irrigated agriculture on the Waimea Plain in a series of stages possibly beginning with Kamehameha's presence at Kawaihae in the 1790s. These ditches, however, do not appear to have functioned as a part of a prehistoric agricultural system associated with upper Waimea Plain field ridges. It is important to note however, that absence of pre-contact irrigation does not mean there was not dryland agriculture and residence on the Waimea Plain during the prehistoric past. These issues are discussed further below.

BENJAMIN J. CAYetano
GOVERNOR OF HAWAII



GILBERT S. COLOMA-AGARAN, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DEPUTIES
JANET E. KAWELO
LINNELL NISHIOKA

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
Kakuhihewa Building, Room 555
801 Kamokila Boulevard
Kapolei, Hawaii 96707

JUN - 8 2001

REF:HP:AMK

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
COMMISSION ON WATER RESOURCE
MANAGEMENT
CONSERVATION AND RESOURCES
ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
LAND
STATE PARKS
LOG NO: 27637
DOC NO: 0106PM01

Dr. Steve Athens
International Archaeological Research Institute, Inc.
2081 Young Street
Honolulu, Hawaii 96826-2231

Dear Dr. Athens:

**SUBJECT: Land Exchange Between the State of Hawaii and Parker Ranch Trust
Waimea, South Kohala, Hawaii Island
TMK: 6-7-02:15 and Por. 17**

Thank you for your letter of March 20, 2001 concerning a proposed land exchange between the State of Hawaii and Parker Ranch Trust in Waimea. Your letter indicates that you were asked to evaluate possible historic preservation compliance requirements for the subject area. We apologize for the delay in our review.

Reports in our library indicate that the area of the proposed land exchange was included in the archaeological survey by Bishop Museum for the proposed Mudlane-Waimea-Kawaihae Road corridor. The Museum undertook additional archaeological investigations in a portion of parcel 17 in 1990 for the expansion of Waimea Elementary and Intermediate Schools. Survey and test excavations were carried out in a portion of Site 50-10-06-8808. The report on this project, by Stephan Clark, Dawn Davidson and Paul Cleghorn, is titled Archaeological Testing and Data Recovery for the Waimea School Improvements Lot A (TMK: 6-7-2: por. 17), Waikoloa, South Kohala, Hawaii Island.

We believe that previous archaeological investigations of the proposed exchange parcels have recovered an adequate amount of information and that no further studies are required.

If you or your client should have any questions please contact our Hawaii Island archaeologist, Patrick McCoy (692-8029).

Aloha,

Nathan Napke

for DON HIBBARD, Administrator
State Historic Preservation Division

PM:amk

c. Chris Yuen, County of Hawaii Planning Department
Riley Smith, Parker Ranch

APPENDIX 1B

COMMENT LETTERS

IN RESPONSE TO DRAFT EA

AND RESPONSES

AKINAKA & ASSOCIATES, LIMITED
ASHFORD & WRISTON
BANK OF HAWAII
BOB ACREE
CADES SCHUTTE FLEMING & WRIGHT
CENTRAL PACIFIC BANK
CHALON INTERNATIONAL OF HI, INC.
CLARK REALTY CORPORATION
EARL E. BAKKEN
EASLEY CORPORATION
FIRST HAWAIIAN BANK
GREENWELL FARMS, INC.
GTE HAWAIIAN TEL
HAWAII ELECTRIC LIGHT CO.
HAWAII LAND COMPANY
HOLUALOA MANAGEMENT CORP.
HUALALAI DEVELOPMENT COMPANY
KAHUA RANCH LIMITED
KAI HAWAII, INC.
KAMEHAMEHA INVESTMENT CORP.
KAMEHAMEHA SCHOOLS BISHOP ESTATE
KAUPULEHU DEVELOPMENTS
KEALAKEKUA RANCH LIMITED
KEALIA RANCH
KEAUHOU KONA CONSTRUCTION CORP.
KIEWIT PACIFIC COMPANY
KONA TRANSPORTATION
LANIHAU PARTNERS, L.P.



HAWAII LEEWARD PLANNING CONFERENCE

P.O. BOX 2159 • KAMUELA, HAWAII 96743-2159

September 25th, 2001

L'ORANGE & ASSOCIATES
MACFARMS OF HAWAII
MARYL GROUP, INC.
MAUNA KEA PROPERTIES
MAUNA LANI SERVICE, INC.
MCCANDLESS RANCH
MENEHUNE DEVELOPMENT
MOOERS ENTERPRISES
OCEANSIDE 1250
OKAHARA & ASSOCIATES
PARKER RANCH, INC.
PONO HOLO RANCH
PUNA PLANTATION HI LTD., dba KTA
QUEEN LILUOKALANI TRUST
REALTY INVESTMENT, LTD.
RIEHL OWENSBY PLANNERS ARCHITECTS
R.M. TOWILL CORPORATION
SEA CLIFF DEVELOPMENT, LLC
SSFM ENGINEERS, INC.
SUN CABLEVISION
THE NATURE CONSERVANCY OF HAWAII
THE QUEEN EMMA FOUNDATION
WAIKOLOA LAND COMPANY
WAIMA WATER SERVICES, INC.
WB KUKIO RESORT, LLC
WEST HAWAII CONCRETE
WIMBERLY ALLISON TONG & GOO

Mr. Ron Terry
GeoMetrician Associates
HC 2 Box 9575
Keaau, HI 96749

RE: Department of Education / Parker Ranch Land Exchange

Dear Mr. Terry,

We enthusiastically support the proposed land exchange. Both the future expansion of the Waimea School site and the improved design of the Lindsey Road extension are vital to the health of our community.

Thank you for the opportunity to testify.

John B. Ray

John B. Ray
President, Hawaii Leeward Planning Conference
Chairman, South Kohala Traffic Safety Committee

Cc: Director, Office of Environmental Quality Control
Sanford Beppu, Hawaii State Department of Education

metrician
ASSOCIATES, LLC
integrating geographic science and planning

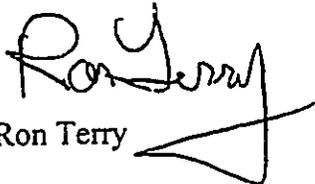
November 1, 2001

John Ray, President
Hawai'i Leeward Planning Conference
P.O. Box 2159
Kamuela HI 96743-2159

**Subject: Environmental Assessment for Proposed Land Exchange Between
Parker Ranch and State of Hawaii, South Kohala District, Island of
Hawaii**

Thank you for your letter of September 25, 2001, commenting on the Draft EA. The Hawai'i State Department of Education agrees with your assessment about the importance of the action. DOE also acknowledges the past comments and support of the South Kohala Traffic Safety Committee.

Sincerely,



Ron Terry

cc: William L. Moore
Sanford Beppu, DOE
Brian Isa, DAGS



NA ALA HELE
Hawaii Trail & Access System

10 October 2001

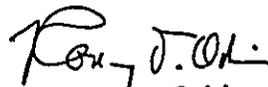
Ron Terry, PhD.
Geometrician
HC 2 Box 9575
Keaau, Hawaii 96749

Dear Mr. Terry,

SUBJECT: Exchange of Land
TMK 6-7-2:17(por) Parker Ranch to State of Hawaii
TMK 6-7-2:15 (por) State of Hawaii to Parker Ranch

Thank you for the opportunity to review the draft environmental assessment. Na Ala Hele does not have any concerns in the proposed land exchange..

Sincerely,


Rodney T. Oshiro
Na Ala Hele

c: Director, OEQC



November 1, 2001

Rodney Oshiro,
Na Ala Hele Specialist
Hawaii State Department of Land and Natural Resources
P.O. Box 4849
Hilo, HI 96720

**Subject: Environmental Assessment for Proposed Land Exchange Between
Parker Ranch and State of Hawaii, South Kohala District, Island of
Hawaii**

Thank you for your letter of October 10, 2001, commenting on the Draft EA, in which you state that Na Ala Hele has no concerns regarding the proposed land exchange.

Sincerely,

A handwritten signature in black ink that reads "Ron Terry". The signature is written in a cursive style with a large, sweeping flourish at the end.

Ron Terry

cc: William L. Moore
Sanford Beppu, DOE
Brian Isa, DAGS

Harry Kim
Mayor



James S. Correa
Police Chief

County of Hawaii
POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 935-3311 • Fax (808) 961-8869

October 17, 2001

Mr. Ron Terry
GeoMetrician Associates
HC 2 Box 9575
Keaau, HI 96749

Mr. Terry:

**SUBJECT : DEPARTMENT OF EDUCATION/PARKER RANCH LAND EXCHANGE
TAX MAP KEY: 6-7-2:17 (POR), 6-7-2-15 (POR)**

Staff has reviewed the above-referenced proposal and found that there are no concerns regarding the proposed land exchange between the Department of Education and Parker Ranch.

If you have any questions regarding this matter, please call Captain Robert K. Ka'aua of our South Kohala District at (808) 887-3080.

Thank you for the opportunity to comment.

Sincerely,

JAMES S. CORREA
POLICE CHIEF

THOMAS J. HICKCOX
ASSISTANT POLICE CHIEF
FIELD OPERATIONS BUREAU

RKK:lk

cc: Director, Office of Environment Quality Control
Sanford Beppu, Hawaii State Department of Education

metrician
ASSOCIATES, LLC
integrating geographic science and planning

November 1, 2001

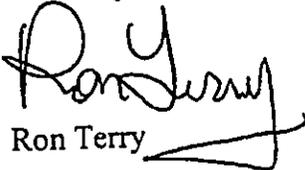
James Correa, Chief
Hawaii County Police Department
349 Kapiolani Street
Hilo, Hawaii 96720

Dear Chief Correa:

**Subject: Environmental Assessment for Proposed Land Exchange Between
Parker Ranch and State of Hawaii, South Kohala District, Island of
Hawaii**

Thank you for your letter of October 17, 2001, commenting on the Draft EA, in which you state that your Department sees no concerns regarding the proposed land exchange.

Sincerely,


Ron Terry

cc: William L. Moore
Sanford Beppu, DOE
Brian Isa, DAGS

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
236 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

October 23, 2001

Mr. Sanford Beppu
Department of Education, State of Hawai'i
Facilities Support/Services Branch
P.O. Box 2360
Honolulu, Hawai'i 96804

Ron Terry, Ph.D.
Geomterician
HC2 Box 9575
Keaau, Hawai'i 96749

Dear Mr. Beppu and Dr. Terry:

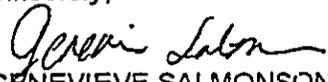
We have reviewed your draft environmental assessment (DEA) for the proposed land exchange between the State of Hawai'i and Parker Ranch, wherein Parker Ranch would convey title to a 4.988-acre portion of Tax Map Key 6-7-2:17 to the State of Hawai'i and the State of Hawai'i would convey title to a 0.78-acre portion of Tax Map Key 6-7-2:15 to Parker Ranch. We offer the following comments for your consideration and response.

CULTURAL IMPACT ASSESSMENT: Although the document discusses historic and archaeological cultural considerations, it is not clear as to whether current-day cultural practitioners and residents in the area were interviewed in obtaining this information. What impacts (if any) will the proposed action have on cultural practices and resources in the area (page 6 notes tha the 'ilima ort *Sida fallax*, a native plant is on site)? Do people gather near the area or are there areas nearby use for contemporary cultural and religious practices. Chapter 343, Hawai'i Revised Statutes now requires that cultural impacts be assessed (see enclosed copy of Act 50, SLH 2000). A copy of the Environmental Council's guidelines for assessing cultural impacts using interviews as the primary information gathering method is enclosed for your use.

CUMULATIVE IMPACT ANALYSIS: Please research other project planned in the region and discuss the cumulative effects your project may have in conjunction with these other projects.

Thank you for the opportunity to comment. If there are any questions, please call me or Leslie Segundo at (808) 586-4185.

Sincerely,


GENEVIEVE SALMONSON
Director

Enclosures

State of Hawaii
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
Guidelines for Assessing Cultural Impacts

Adopted by the Environmental Council, State of Hawaii
November 19, 1997

I. INTRODUCTION

It is the policy of the State of Hawaii under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making.

Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

II. CULTURAL IMPACT ASSESSMENT METHODOLOGY

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access

to gathering areas would be included in the assessment. An ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua'a and the geographical extent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

If the subject area is in a developed urban setting, cultural impacts must still be assessed. Many incorrectly assume that the presence of urban infrastructure effectively precludes consideration of current cultural factors. For example, persons are known to gather kauna'oa, 'ilima, 'uhaloa, noni or ki on the grassy slopes and ramps of the H-1 freeway and some state highways on the neighbor islands. Certain landmarks and physical features are used by Hawaiian navigators for sailing, and the lines of sight from landmarks to the coast by fisherman to locate certain fishing spots. Blocking these features by the construction of buildings or tanks may constitute an adverse cultural impact.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

- (1) identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a;

- (2) identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;

- (3) receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;

- (4) conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;

- (5) identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and

- (6) assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed

should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of the informant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

III. CULTURAL IMPACT ASSESSMENT CONTENTS

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§§§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.
2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.
3. Ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.
4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.
5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.
6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the

proposed action is located, as well as their direct or indirect significance or connection to the project site.

7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project.

8. An explanation of confidential information that has been withheld from public disclosure in the assessment.

9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.

10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.

11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call 586-4185.

metrician
ASSOCIATES, LLC
integrating geographic science and planning

November 1, 2001

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

**Subject: Environmental Assessment for Proposed Land Exchange Between
Parker Ranch and State of Hawaii, South Kohala District, Island of
Hawaii**

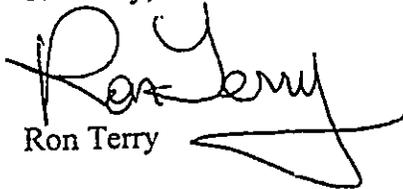
Dear Ms. Salmonson:

Thank you for your letter of October 23, 2001, commenting on the Draft EA. Our response to your individual comments are as follows:

1. *Cultural Impact Assessment.* First of all, it is important to note that the exchange areas are occupied by a working cattle ranch and accessory roads, storage lots, fences, etc. The archaeological and historical work by IARJI for this portion of Parker Ranch included a number of interviews with people who have lived and worked in Waimea. The interviews covered many aspects of traditional sites and uses. Gathering resources in this pasture area has never been identified as a cultural practice. In the case of ilima, for example, which is found in a generally stunted form scattered in the pastures, there is a large number of alternate sites in the lowlands with much higher quality plants. Because of the very poor state of or absence of most gathering resources, the use of the land for cattle ranching and accessory activities, and the proximity to far better resource areas, there do not appear to be any cultural resources or uses that would be of concern.
2. *Cumulative Impacts.* To our knowledge, the only project that has a potential to generate adverse impacts that might accumulate with those of the proposed action (a land exchange) or the impacts of building and operating a school on such land is the Waimea Town Center. This project is discussed on pp. 1-2 of the Draft EA; in addition, Appendix 4 is a map of this proposed development. The eventual use of this land as a school has been an integral consideration in planning efforts for Waimea Town Center. In order to avoid any conflicts in land use needs, Parker Ranch has planned to assist the DOE in obtaining the land it might require for school expansion; the proposed action is a result of this planning. The road system, land use types, drainage improvements, historic site preservation, and other aspects of the Waimea Town Center have been designed to accommodate the expected school traffic, noise, and land use requirements. Cumulative

impacts have thus been considered, and avoided, as part of planning. This information is presented in the EA on p. 17.

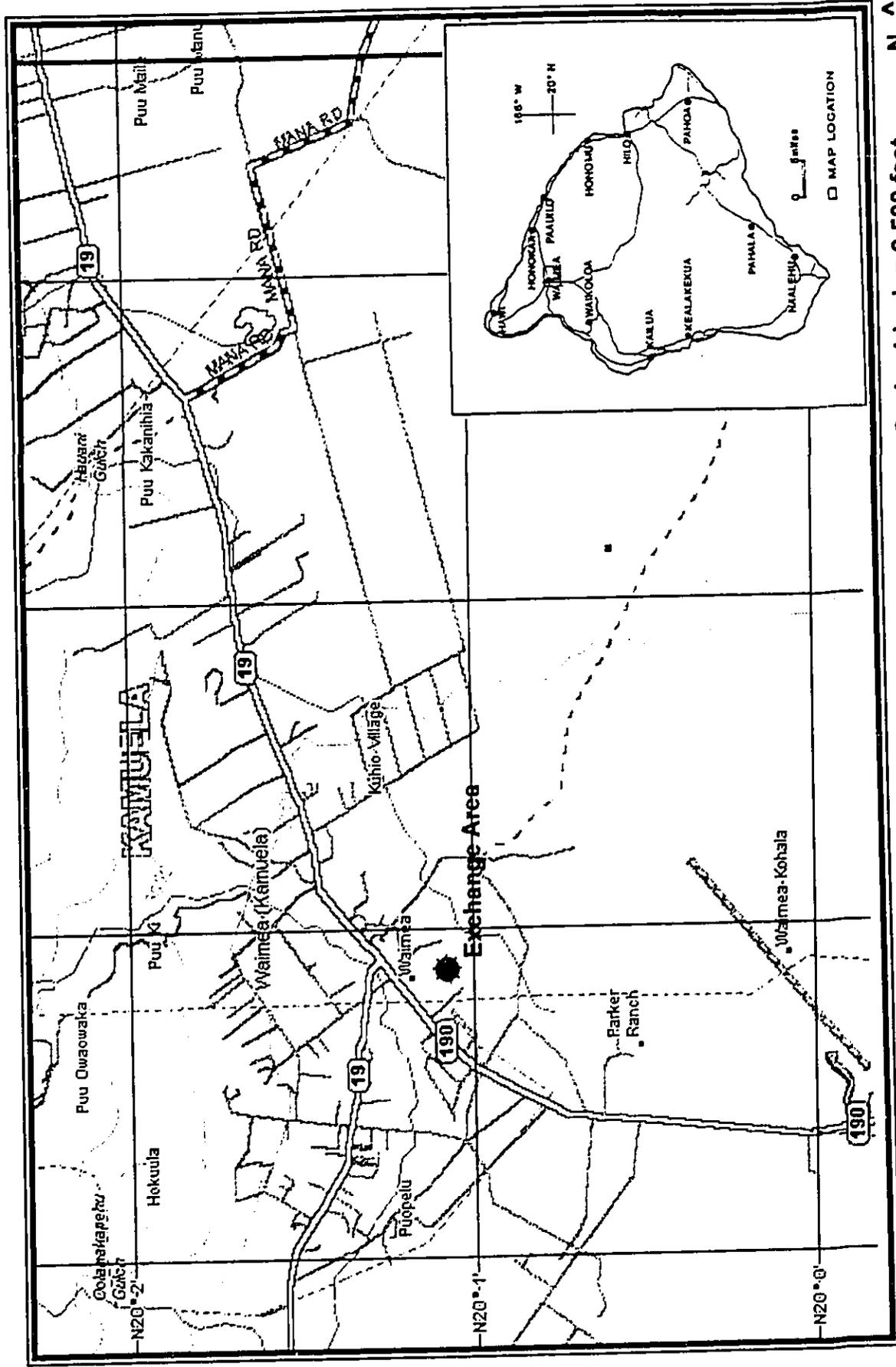
Sincerely,


Ron Terry

cc: William L. Moore
Sanford Beppu, DOE
Brian Isa, DAGS

APPENDIX 2

FIGURES



Scale: 1 inch = 2,500 feet

Figure 1 Project Location, Overview

Fig. 2
Project Site Map

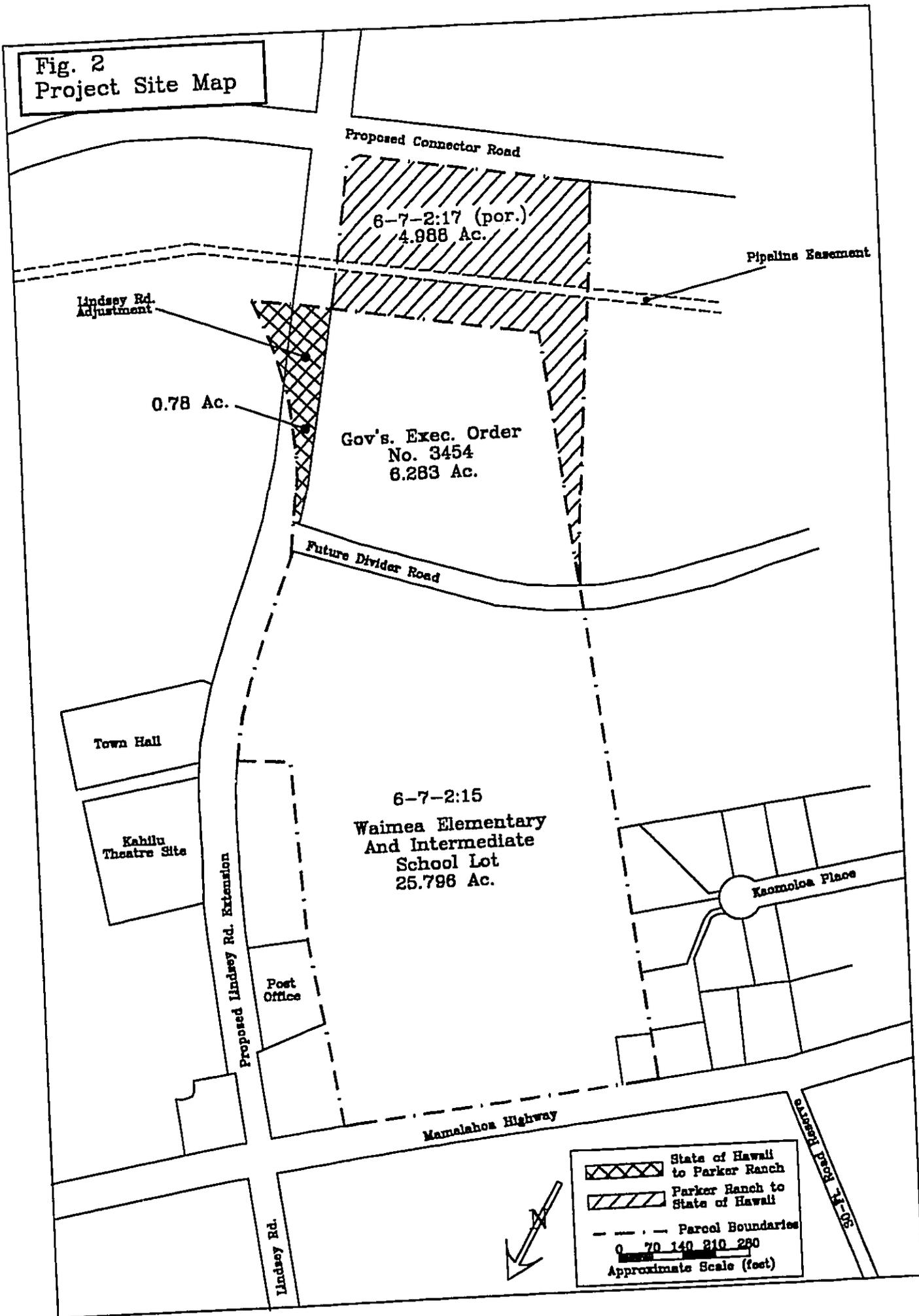


Figure 3 Existing Site Photographs



Southeast corner. looking southwest



Southeast corner. looking south



Southeast corner. looking northwest to Waimea School

Fig. 4
FEMA Floodplains

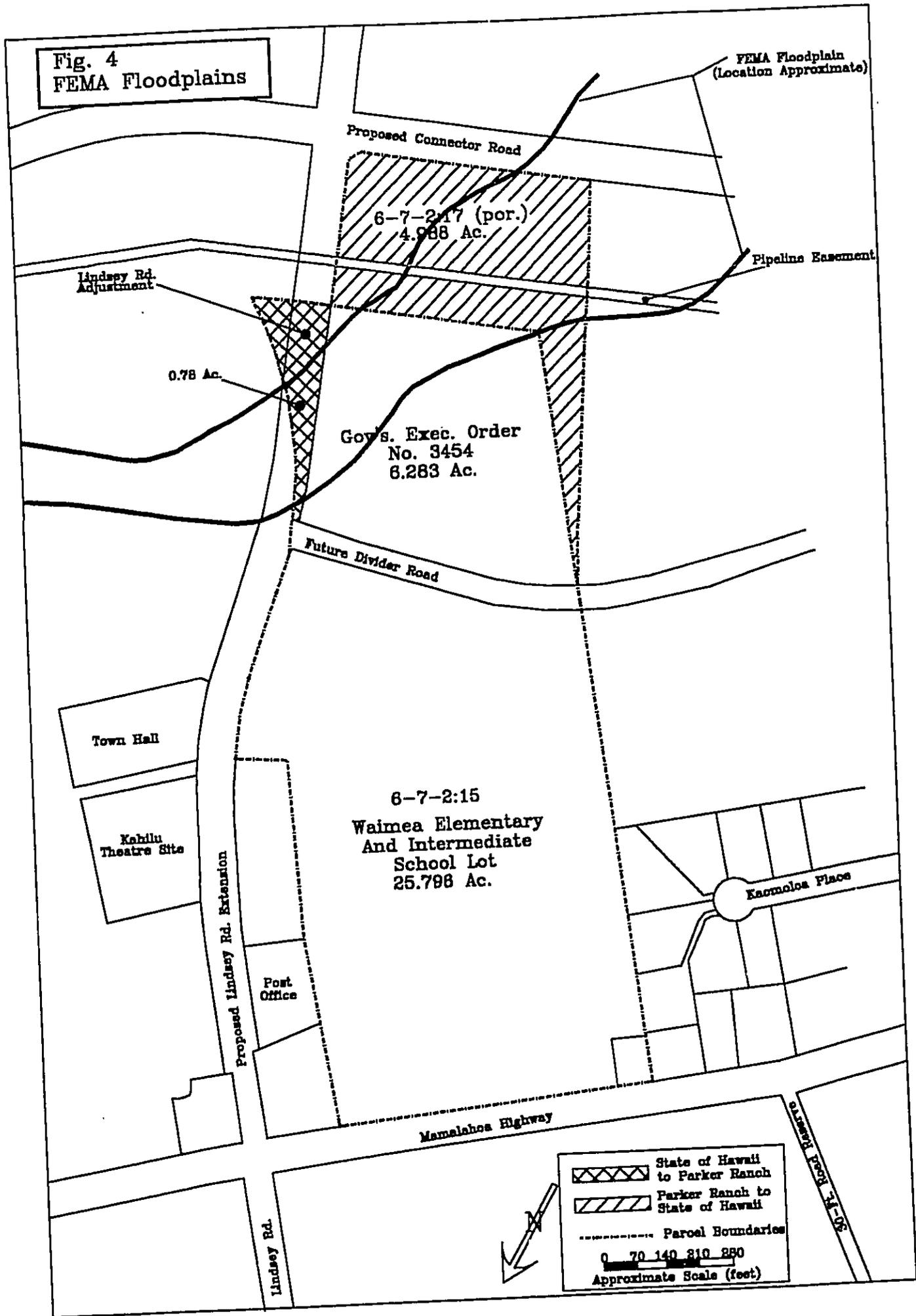
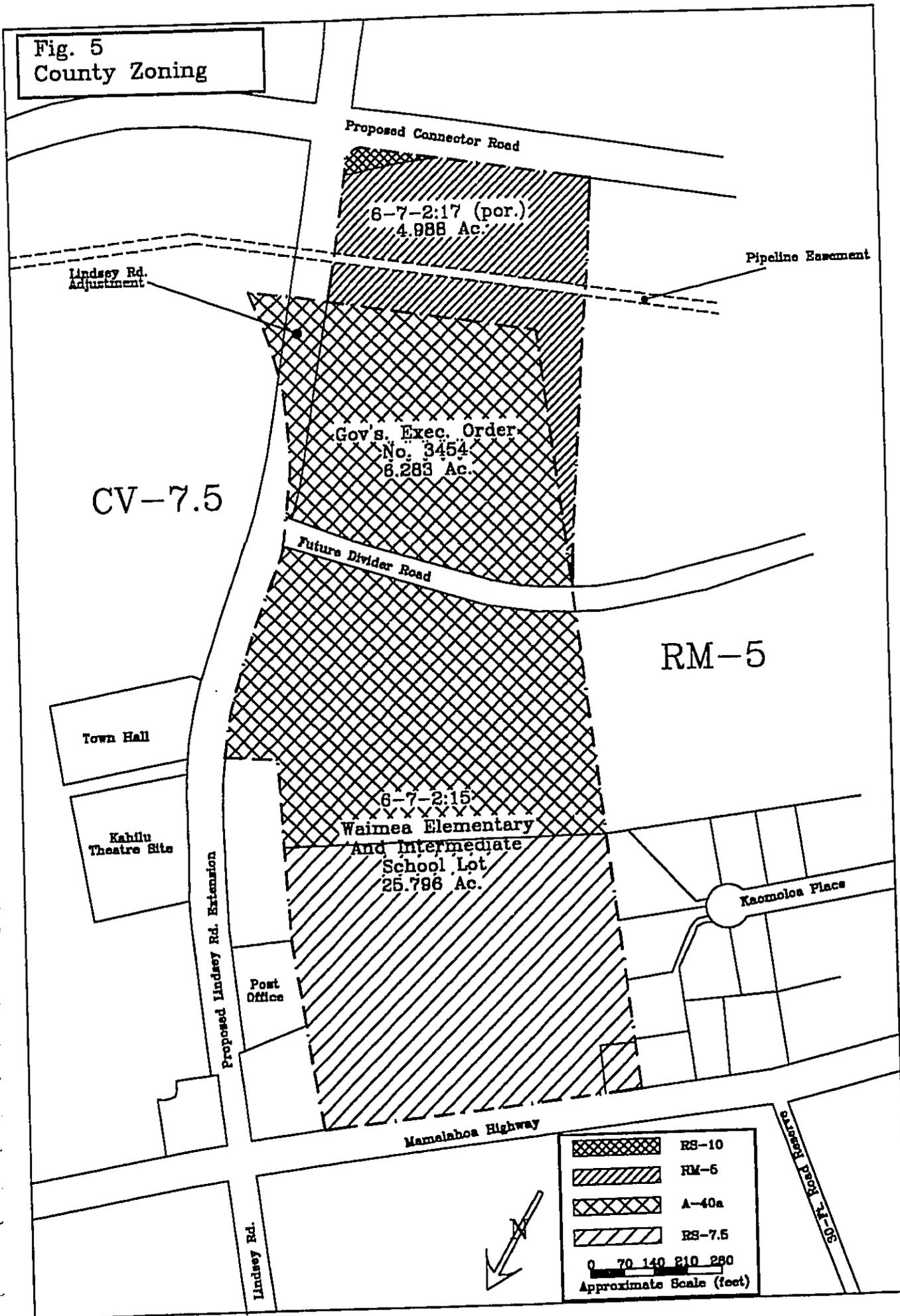


Fig. 5
County Zoning



APPENDIX 3

DEVELOPMENT AGREEMENT

WAIMEA DEVELOPMENT AGREEMENT

THIS AGREEMENT, executed on the respective dates indicated below, is effective as of June 27, 2000, between PARKER RANCH, by its trustees, whose principal place of business and post office address is P.O. Box 458, Kamuela, Hawaii 96743, and the Department of Education, State of Hawaii, (hereinafter called the "STATE"), by its Superintendent, whose principal place of business and post office address is P.O. Box 2360, Honolulu, Hawaii 96804.

WHEREAS, PARKER RANCH desires to implement their 2020 Development which shows a future extension of Lindsey Road and a future road (60-foot wide right-of-way) on STATE property located at TMK (3) 6-7-02: 15, hereinafter called the "WAIMEA SCHOOL SITE" as shown on Exhibit A.

WHEREAS, the STATE desires a WAIMEA SCHOOL SITE with a total of approximately 29.275 usable acres for the development of a Waimea Elementary School campus (approximately 11.275 usable acres) and a Waimea Middle School campus (approximately 18.0 usable acres).

WHEREAS, the STATE desires to acquire additional land from PARKER RANCH to increase the WAIMEA SCHOOL SITE from 25.796 usable acres to approximately 29.275 usable acres.

WHEREAS, this agreement will satisfy the STATE's interests in Condition F of County of Hawaii Ordinance No. 96-117 dated September 20, 1996.

WHEREAS, PARKER RANCH and the STATE are desirous of exchanging property and constructing various site improvements to the benefit of both parties.

NOW THEREFORE, the STATE and PARKER RANCH mutually agree as follows:

A. RELATED TO THE EXCHANGE OF LAND:

1. PARKER RANCH shall dedicate to the STATE 4.988 acres, more or less, subject to survey, as shown on Exhibit B hereinafter called the "Waimea School Expansion," to achieve approximately 29.275 usable acres for the WAIMEA SCHOOL SITE.
2. The STATE shall dedicate to PARKER RANCH, 0.78 acres, more or less, subject to survey, as shown on Exhibit B hereinafter called the "Lindsey Road Adjustment," to realign Lindsey Road.
3. PARKER RANCH shall:
 - a. Conduct and pay for a Title Report covering the WAIMEA SCHOOL EXPANSION, at no cost to the STATE, and provide 2 (two) copies of the report to the STATE prior to the transfer of the deed.
 - b. Cancel the existing site encumbrances in the WAIMEA SCHOOL EXPANSION area which are determined by PARKER RANCH and/or the STATE to be unnecessary, at no cost to the STATE. The existing State Department of Agriculture Pipeline Easement (C.S.F. No. 14700) in the Waimea School

Expansion area shall not be subject to this provision.

- c. Pay for and process the subdivision and reconsolidation of the land transaction (including the Waimea School Expansion and Lindsey Road Adjustment).
- d. Pay for and develop easement documents, maps, and stakeout the new boundaries on the STATE and PARKER RANCH properties. This task includes easements (for light poles, electrical transformers, telephone switching boxes, etc.) due to the construction of the Lindsey Road Extension
- e. Pay for and develop maps and descriptions of all land areas in the land transaction.
- f. Pay for and conduct a Phase 1 level hazardous material study on the Waimea School Expansion area. The study's scope shall be consistent with State Department of Health guidelines, including:
1) identification of the historical ownership of the property; 2) identification of the crops that were cultivated on the property; and 3) indicating if there has been hazardous material dumping or insecticide or herbicide use on the site by Parker Ranch or any previous owner. Two (2) copies of the report shall be transmitted to the STATE.

B. RELATED TO DIVIDER ROADWAY EASEMENT:

1. A 60-foot wide roadway easement for access and utilities will separate the middle school and elementary school campuses. The roadway easement shall be comprised of approximately 0.729 acres, more or less, subject to survey, as shown on Exhibit B, hereinafter called "Divider Roadway Easement."
2. PARKER RANCH and the STATE agree that a Divider Road shall be constructed, by either party, within the Divider Roadway Easement when the need arises. Construction of a road within the Divider Roadway Easement shall meet county design standards. If constructed by the STATE, the Divider Road will extend to the Waimea Elementary School entrance only and will be built after completion of the Lindsey Road extension fronting the school.

C. RELATED TO SCHOOL CONSTRUCTION:

1. The STATE realizes that PARKER RANCH has completed a regional drainage mitigation project which has rerouted regional floodwaters away from the STATE's site.
2. The STATE understands that PARKER RANCH is in the process of revising the federal flood maps and that the County of Hawaii has been allowing building construction in locations that were previously in the floodway.

D. RELATED TO THE STATE'S DEVELOPMENT OF THE WAIMEA SCHOOL SITE):

1. The STATE understands that PARKER RANCH has conducted an archaeological study which includes the area of the Waimea School Expansion and that there are no sites deserving preservation or requiring further investigation, and that the Department of Land and Natural Resources (DLNR) - Historic Preservation Division has approved the archaeological study report. PARKER RANCH shall provide two (2) copies of the report and two (2) copies of DLNR's approval letter to the STATE.
2. Prior to final approval of the land exchange, if the STATE finds archaeological site(s) which require preservation, or if the STATE finds rare plant(s) which require preservation, or if any new discovery is made which does not allow full use of the site by the STATE then the STATE reserves the right to renegotiate this agreement with PARKER RANCH.
3. PARKER RANCH will conduct, at no cost to the STATE, a site evaluation of the existing school site, conduct a EA/FONSI for the acquired site, and review zoning and the need for a Special Permit.
4. The STATE shall determine if a water allocation is required, conduct a master plan, conduct a topographic map and site stakeout, and conduct site studies (traffic, archaeological, drainage).

5. PARKER RANCH shall, if necessary, allow the STATE's contractor a two-acre staging area within PARKER RANCH property during the construction of the Waimea Elementary School at no cost. A separate right-of-entry document will be developed at a later date.
6. PARKER RANCH shall allow STATE access into PARKER RANCH's property for land acquisition, planning, design and construction work related to the Waimea Elementary School. A separate right-of-entry document will be developed at a later date.
7. Should PARKER RANCH proceed with the construction of the Divider Road prior to the STATE's development of the school site, the STATE shall grant PARKER RANCH access to construct the road. A separate right-of-entry document will be developed at a later date.
8. PARKER RANCH agrees to cooperate with the STATE, including participation in the construction of road access and utilities to the extent practicable. The STATE agrees to work with PARKER RANCH to ensure there is mutual benefit from road and infrastructure systems it constructs to the extent practicable.

OTHER CONDITIONS:

1. The acquisition of PARKER RANCH lands and disposition of STATE property is subject to the Board of Land and Natural Resources' review and approval and additional conditions.

2. The proposed STATE improvements are subject to the review and approval of applicable County and State agencies and utility companies.

APPROVED AS TO FORM:

Russell A. Singh 4-18-2000
DEPUTY ATTORNEY GENERAL Date

ACCEPTED:

Taylor L. M... 4/27/2000
SUPERINTENDENT Date
DEPARTMENT OF EDUCATION

ACCEPTED:

CHAIRPERSON Date
BOARD OF LAND AND
NATURAL RESOURCES

ACCEPTED: *ps 6/5/00*

Carl C. Carlson *6/6/00*
PARKER RANCH TRUSTEE Date

ACCEPTED:

William B. Hood *6-6-00*
PARKER RANCH TRUSTEE Date

ACCEPTED:

[Signature] *6/6/00*
PARKER RANCH TRUSTEE Date

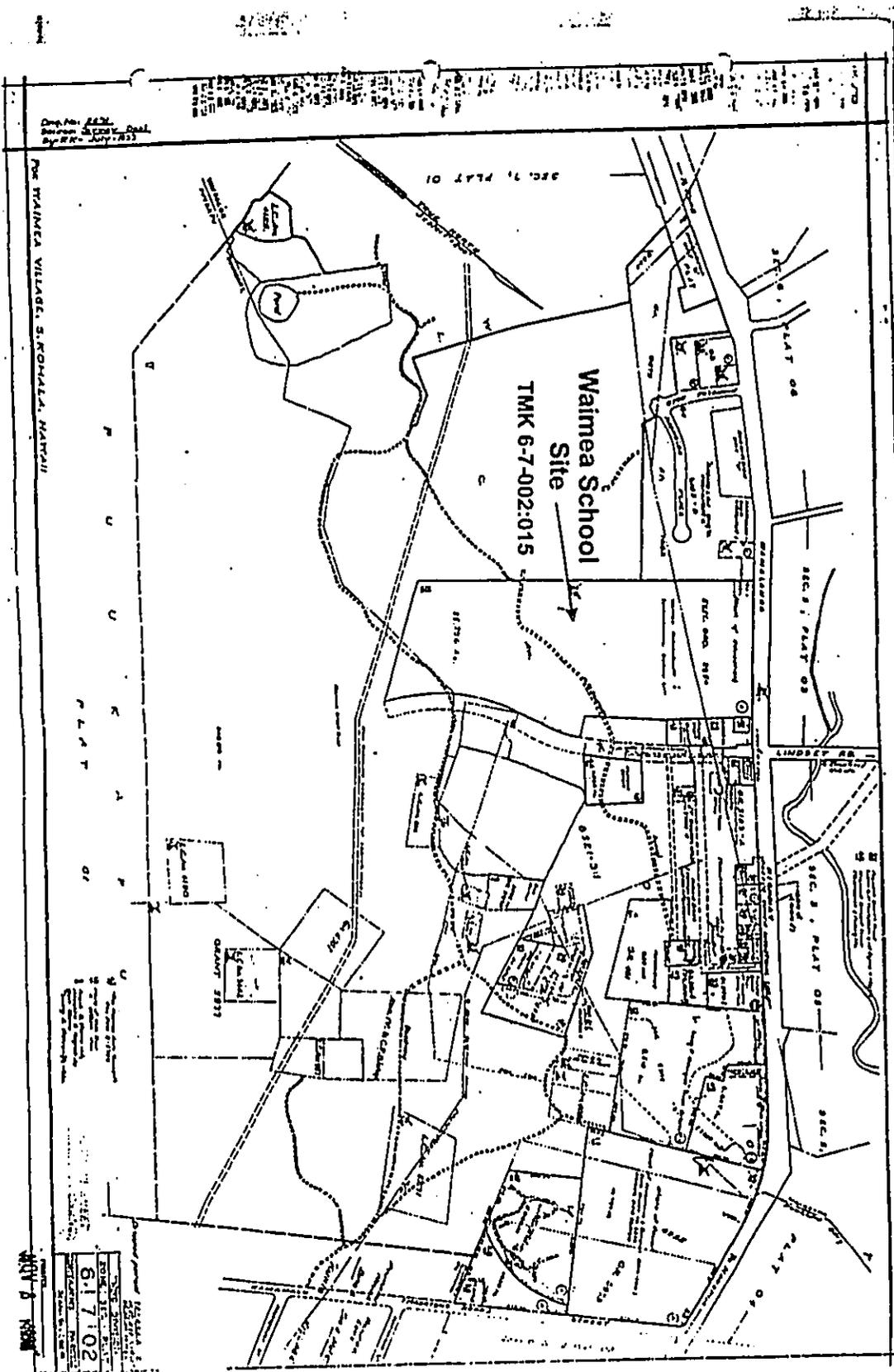
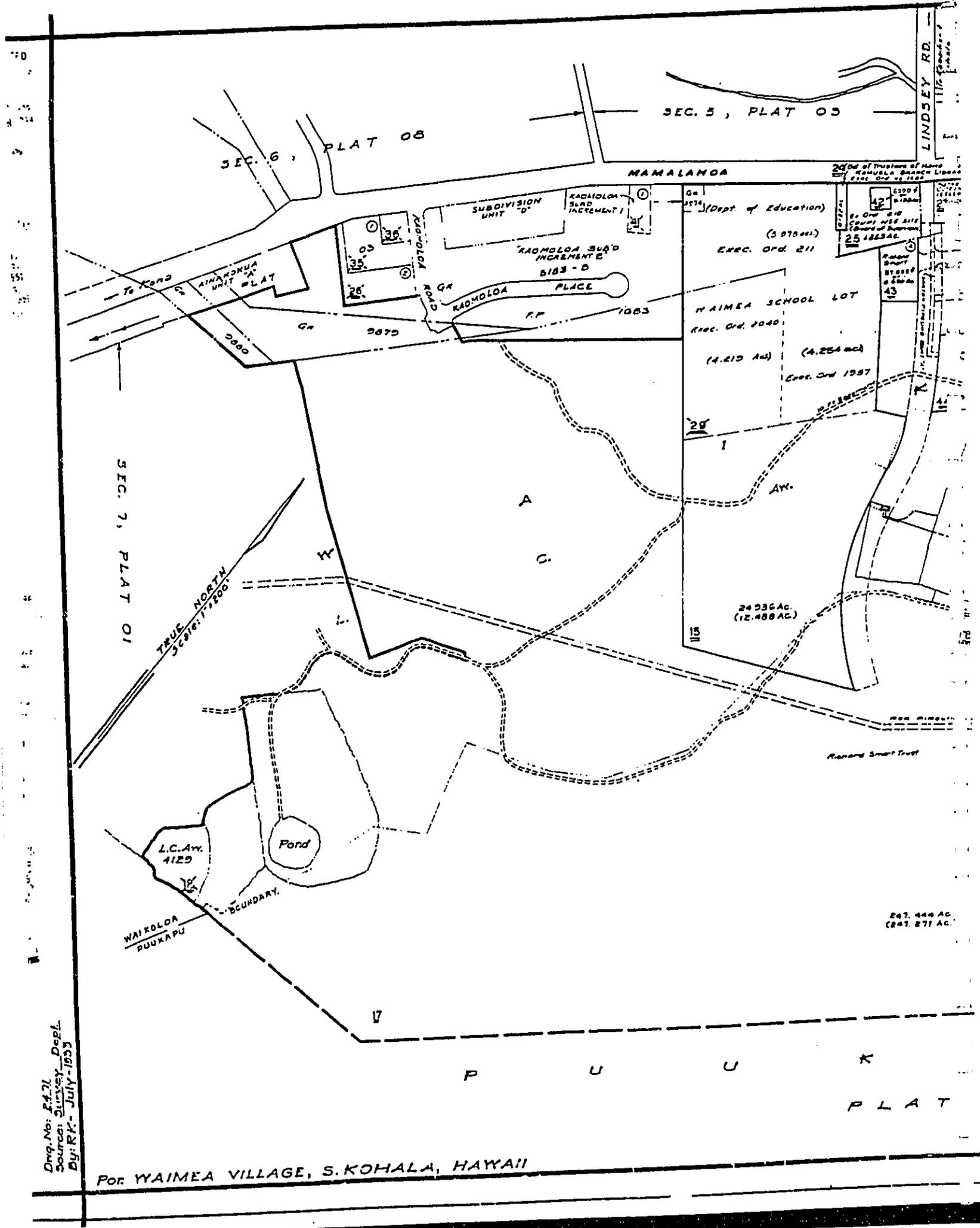


EXHIBIT A

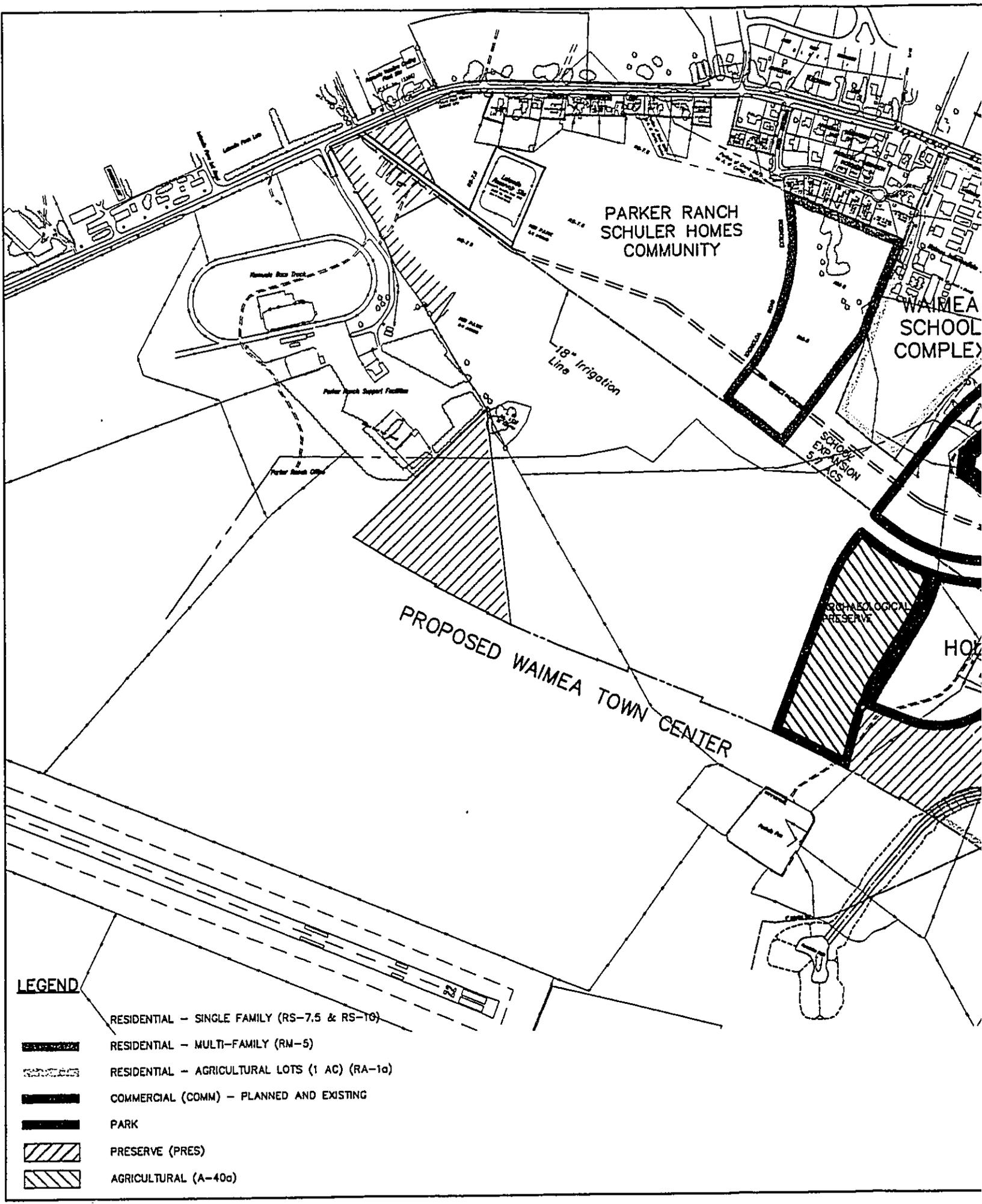


Orig. No: E.F. 21
 Source: Survey Dept.
 By: R.K. - July-1953

For YAIMEA VILLAGE, S. KOHALA, HAWAII

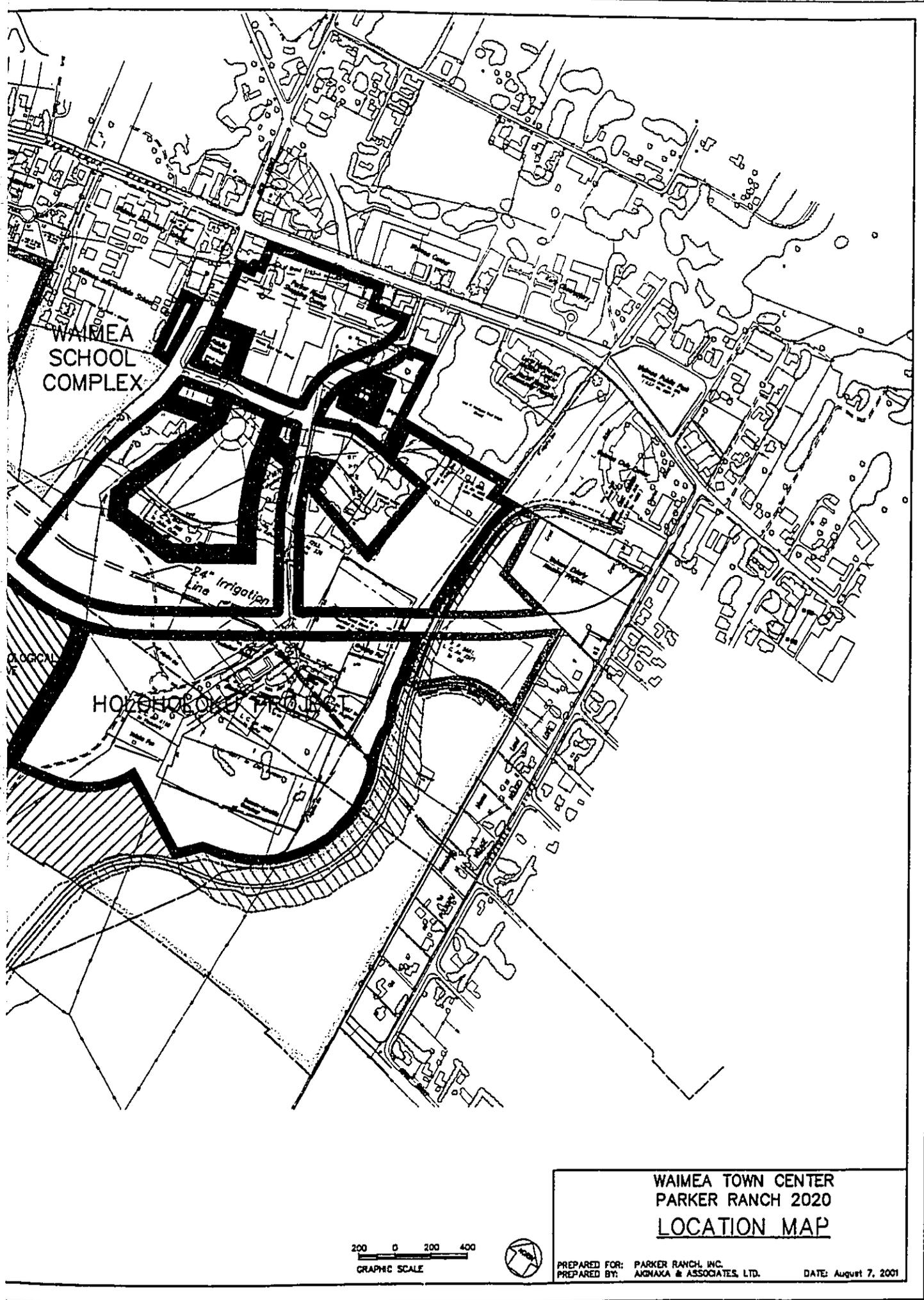
APPENDIX 4

WAIMEA TOWN CENTER MAP

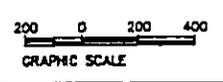


FILE LOCATION MAP
 SCALE: 1"=200'
 REVISION: 3/31/78

WORKSHEET NO. 1
 PREPARED BY: JEN BASS
 CHECKED BY: JEN BASS
 DATE: 08/07/01



WAIMEA TOWN CENTER
PARKER RANCH 2020
LOCATION MAP



PREPARED FOR: PARKER RANCH, INC.
PREPARED BY: AIGNAXA & ASSOCIATES, LTD. DATE: August 7, 2001