1990-11-23-OA-FEA Hawaiian Electric 46 KV Transmission Substation

ENVIRONMENTAL ASSESSMENT

October 3, 1990

Lagoon 46 KV Substation

FILE COPY

I. General Information

A. Applicant: Hawaiian Electric Company, Inc.
900 Richards Street
Honolulu, Hawaii 96813
Ph. No. 548-7771

B. Recorded Fee Owner: Hawaiian Electric Company, Inc.
900 Richards Street
Honolulu, Hawaii 96813
Ph. No. 548-7771

C. Agent: William Muench
900 Richards Street
Honolulu, Hawaii 96813
Ph. No. 543-5657

D. Tax Map Key: 1-1-70:19

E. Lot Area: 21,850 sq. ft. (0.50 acres)

F. Agencies Consulted In Making Assessment: Dept. of Land Utilization (refer to attached Memorandum dated August 8, 1990 in Exhibit 5)

II. Description Of The Proposed Action

A. General Description:

(1) Hawaiian Electric Company, Inc. (HECO) proposes to build a 46,000 volt (46 kilovolt (KV)) alternating current transmission substation for the purpose of providing electrical power to new customer loads in the airport area.

(2) The entire project site is located within the SMA. Exhibit I is a location plan showing the new Lagoon 46 kv substation site, property lines and the approximate boundary of the SMA.

(3) No land use approvals are required since the parcel is zoned as I-2 for which utility installations are allowed.

B. Technical Characteristics:

(1) Use Characteristics: The new 46 kv substation will be used to provide electrical power to new customer loads in the airport area which has experienced steady growth during the past years. The new substation is planned to help relieve the existing Keehi Substation which has reached its capacity due to carrying most of the load for the airport area.

(2) Physical Characteristics: The new 46 kv substation will consist of 'low profile' (15'-6" max. height) switch structures, 10/12.5 MVA transformer & switchgear, disconnect switches and other related electrical equipment. The size of the substation lot is 115 feet by 190 feet with an existing groundline elevation at approximately 5.50 MLLW. Exhibit II is a plan view and Exhibit III is an elevation of the new 46 kv substation.

(3) Construction Characteristics: The scope of work for the new 46 kv substation will include: grubbing, grading, fabrication and erection of steel structures, concrete foundations, fencing, paving, underground ductlines, grounding work and landscaping. The maximum height of the new steel structures with electrical hardware mounted will be approximately 15'-6".

(4) Utility Requirements: No additional electrical services are required other than what is currently available.

(5) Liquid & Solid Waste Disposal: There will not be any municipal or industrial type wastes generated from the new substation.

(6) Access to the site is from Lele Street.

C. Economic and Social Characteristics:

(1) Estimated Cost & Schedule: The estimated construction cost of the new 46 kv substation is approximately $300,000 based on a 1991 service date. Construction of the substation is scheduled to start in March 1991 and be completed by December 1991.

(2) Local contractors will be used for construction of the new 46 kv substation.

D. Environmental Characteristics:

(1) Soils: A soils investigation will be conducted to determine the type of soil and its load bearing capacities at the site.

(2) Topography: The project site is fairly flat with less than 2% slope towards Keehi Lagoon. The site is located approximately 200 feet East from Honolulu International Airport and 2500 feet South from Kamehameha Highway.

(3) Surface Runoff, Drainage, Erosion Hazard: The project site currently has surface runoff draining toward Lele Street which then collects into municipal storm drains.

There will not be any increase in the surface runoff due to the new 46 kv substation since the finish ground elevation will be fairly level similar to the existing grade.

(4) The proposed project site is within the Federal FIRM Insurance Zone D and does not lie in any LUO Flood Hazard District.

III. Affected Environment

A. The project site is located in a developed area and currently being used as a storage lot for used and damaged rental cars. The lot is unpaved with a gravel base coarse. Exhibit IV contain photos of the project site.

B. The project site is zoned I-2 by the City and is currently owned by the State. The project site is in an existing developed area and is located approximately 800 feet South from Keehi Lagoon Beach Park.

C. The project site does not contain any historic, cultural and archaeological resources.

D. The new 46 kv substation will be visible from Lagoon Drive but will have minimal visual impact due to the 'Low profile' (15'-6" max. height) substation structures which will blend in with existing building structures in adjacent lots. The new 46 kv substation will most likely not be visible from either Keehi lagoon or from coastal waters due to adjacent building structures in its view path.

E. There will be no discharge or any affect on the ground water by the new 46 kv substation.

F. There will be some dust generated during the construction of the new 46 kv substation but not substantial enough to affect the ambient air quality.

G. It is anticipated that some minor noise will be generated by the equipment used during construction. However, at the property line such noise levels will be below the State and local noise standards.

IV. Project Impacts

A. Since the project site is located on land already developed and surrounded by other industrial type facilities, the cumulative effect of this addition within the SMA is insignificant.

B. The proposed 46 kv substation is part of the utility installation, type A and therefore an allowed use within the I-2 zoning.

C. Since the project site is not located on any beach or public area, the new 46 kv substation will not reduce the size of any beach or other area usable for public recreation.

D. Since the project site is located within existing property lines and away from the shoreline, the new 46 kv substation will not reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the SMA and the mean high tide line where there is no beach.

E. The new 46 kv substation will be below the allowable height limit and will not detract from the line of sight toward the sea from the nearest State highway.

F. The new 46 kv substation will not affect the current water quality.

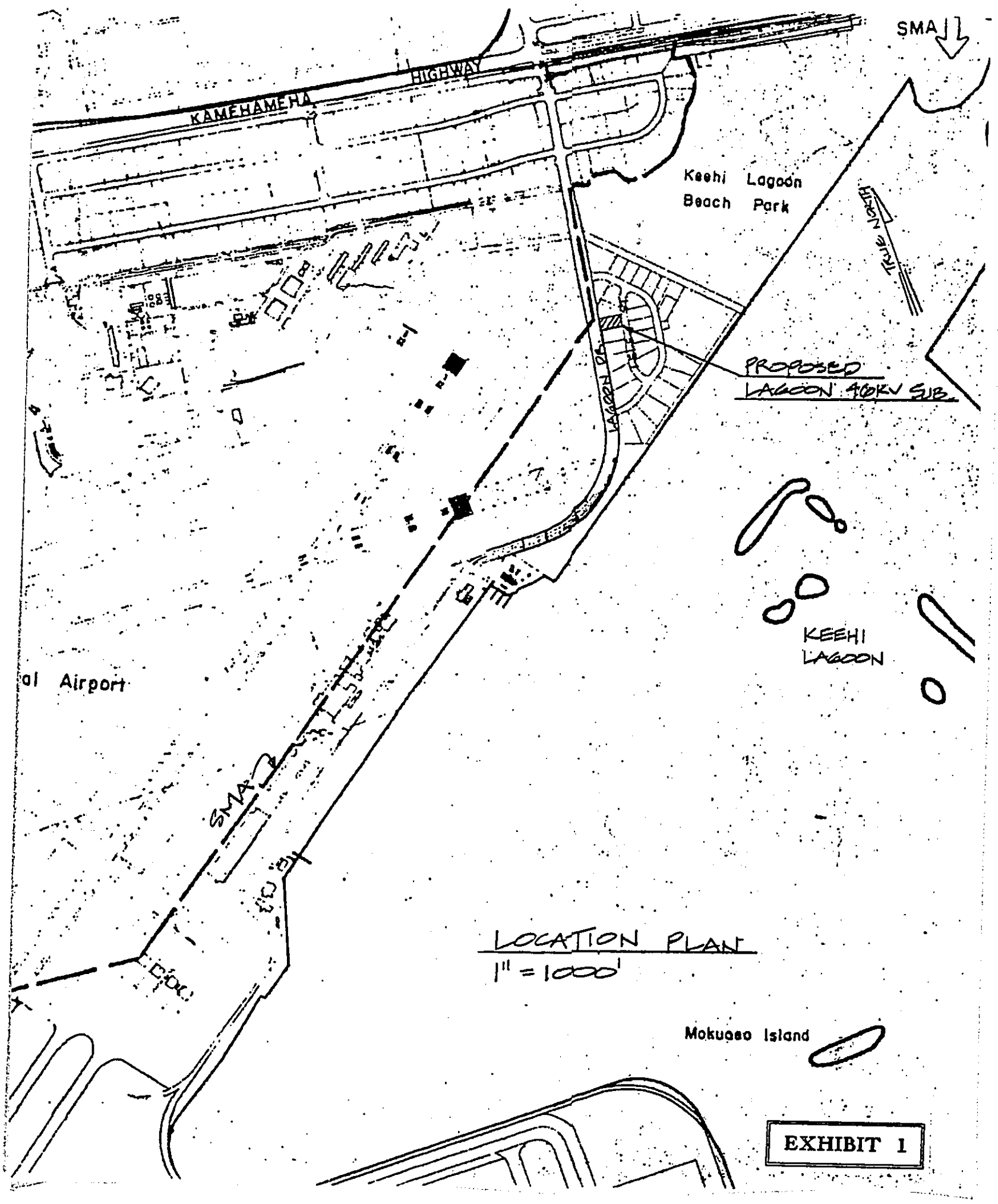
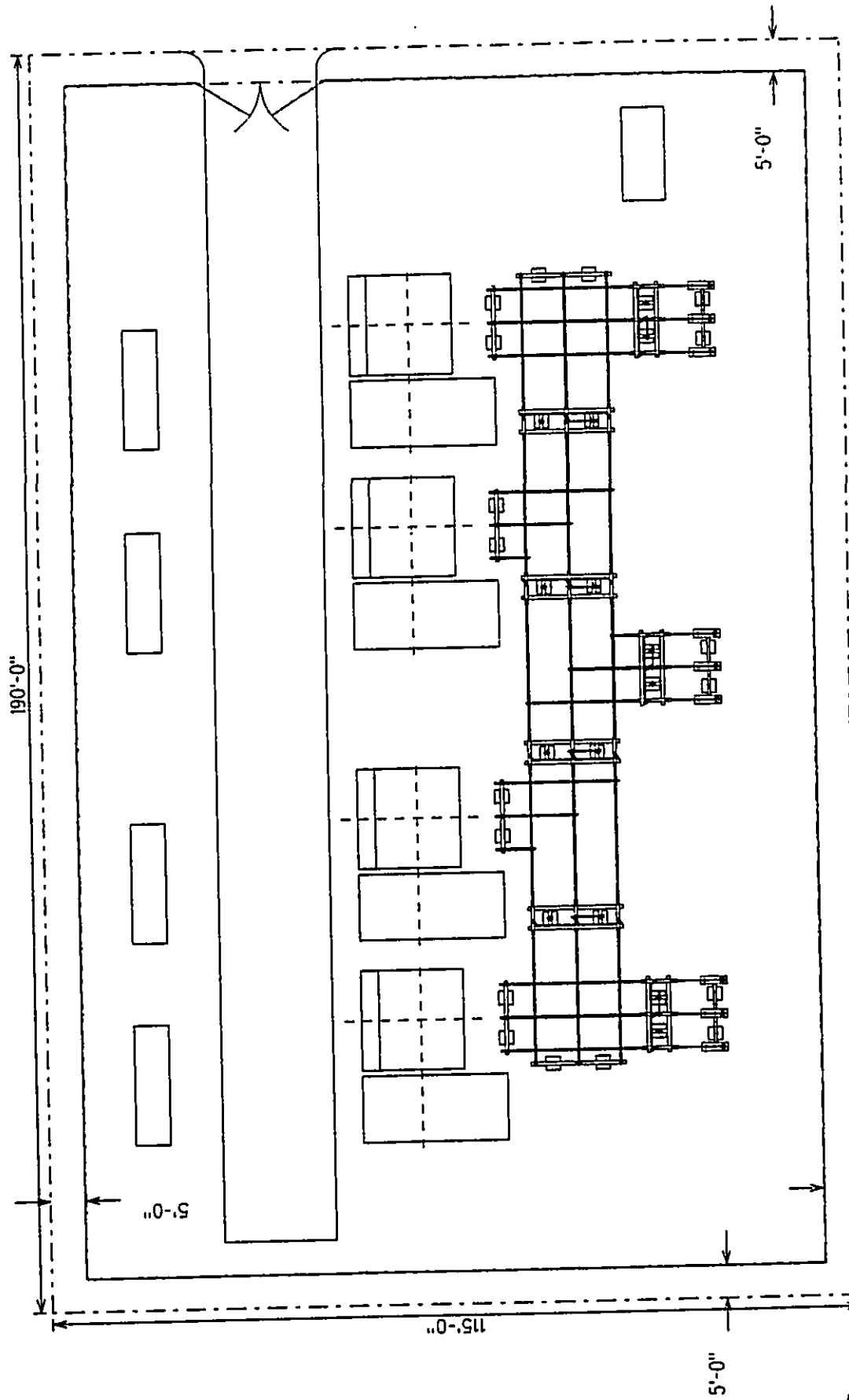

SMA
KAMEHAMEHA
HIGHWAY
Keehi Lagoon
Beach Park
TRUE NORTH
PROPOSED
LAGOON 46KV SUB.
LAGOON DR.
KEEHI
LAGOON
al Airport
SMA
LOCATION PLAN
1" = 1000'
Mokuoeo Island

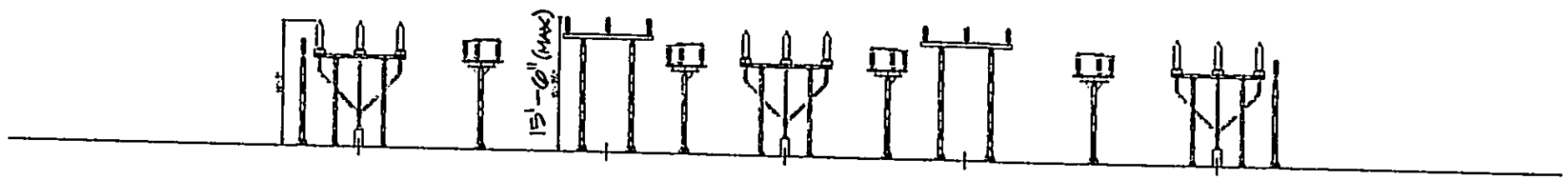
EXHIBIT 1



PLAN VIEW

LAGOON 46kV SUBSTATION

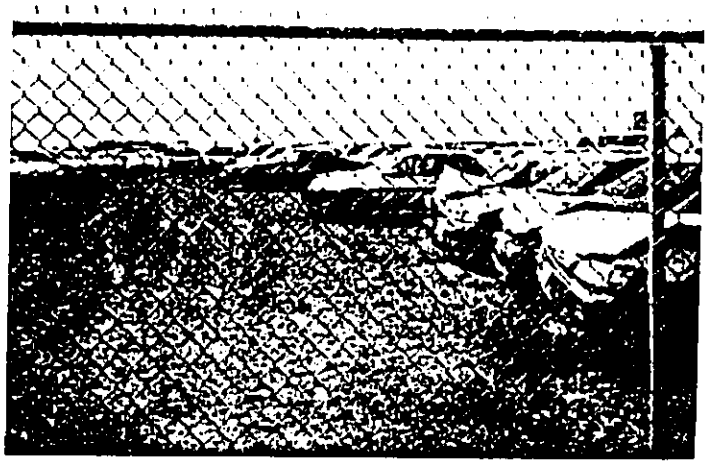
EXHIBIT 2



ELEVATION

LAGOON SUBSTATION

EXHIBIT 5



PHOTOS OF NEW LAGOON 46KV SUBSTATION SITE TAKEN FROM LELE STREET 9-24-90

EXHIBIT 4

CONSTPR728
BP

INTEROFFICE
CORRESPONDENCE

Hawaiian Electric Company, Inc. An HEI Company

August 9, 1990

To: Memo to File

From: Mary Ellen Nordyke-Grace MEN-G

Subject: Lagoon Substation DLU Meeting, August 8, 1990
Special Management Permit

On August 8, 1990, Roy Noda and I went to the Department of Land Utilization, Environmental Affairs Branch, at the City & County Municipal Building at 650 S. King Street to discuss the Lagoon Substation Special Management Area permit procedures with Diane Borchardt, Planner. We discussed the project location and scope of work, and emphasized the short lead time available for the permitting process due to an anticipated March 1991 construction start. Diane was very helpful in explaining the permitting process to us, and she elaborated on the heavy work load in their department for the next two months or so. Thereafter, she anticipated a lighter workload and a quicker review response time.

With Diane Borchardt, we sketched out a simple timeline for the SMA permit process for this project. The Environmental Assessment would be developed as quickly as possible and would be submitted for review and a determination of negative declaration or EIS. If it were a negative declaration determination, it would be published in the OEQC Bulletin and remain open for comments for 21 days. During this time, the draft EA would go to Diane's group for previewing. After the OEQC comment period was over, the SMA permit application would be submitted to the DLU. The schedule would then be approximately 30 days for review there, then 21-60 days for a public hearing (with an average of 30 days), and ten days for finalization. Then the permit would go to the City Council.

Therefore, after the EA was submitted, and if a negative declaration was obtained, an optimistic time frame to obtain the SMP would be approximately five months.

Diane gave us a copy of the instructions for filing an application for an SMP, a DLU Environmental Check List, and a DLU Master Application Form. We indicated that as time was of the essence, we would try to expedite our work in the permitting process.

cc.: R. Noda

EXHIBIT 5