CITY AND COUNTY OF HONOLULU

BUILDING DEPARTMENT

ENVIRONMENTAL IMPACT STATEMENT

KAHUKU AMBULANCE, FIRE AND POLICE STATION

KAHUKU, OAHU

Prepared by

WILSON OKAMOTO & ASSOCIATES, INC.

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TABLE OF CONTENTS

		Page
SUMMARY		1
I.	DESCRIPTION OF PROPOSED ACTION	4
	A. Location	4
	B. Objective	4
	C. Need and Background	4
	1. Description of District	4
	2. Description of Services	5
	D. Projection Description	10
	1. General Site Layout	10
	2. Facilities	10
	3. Utilities	11
	4. Other	12
	E. Phasing and Timing	12
II.	DESCRIPTION OF ENVIRONMENTAL SETTING	13
	A. Regional Context (Koolauloa District)	13
	1. Natural Environment	13
	2. Regional Systems	14
	3. Public Support Facilities	17
	4. Socio-Economic Aspects	18
	B. Environs - Kahuku Town	21
	1. Land Use	21
	2. Planned or Proposed Developments	21
	3. Neighborhood Quality	21
	C. Site	22
	1. Topography	22
	2. Land Use	22

		Page
	3. Soils	23
	4. Flora and Fauna	23
	5. Archaeology and Historic Perspective	25
	6. Site Support Facilities	25
III.	PROBABLE IMPACTS AND MITIGATIVE MEASURES	27
	A. Short-Term (Construction Related)	27
	1. Air Quality	27
	2. Erosion and Water Quality	27
	3. Traffic	28
	4. Safety	28
	5. Noise	28
	6. Employment	29
	B. Long-Term	30
	1. Social	30
	2. Economics	30
	3. Environmental	31
IV.	ADVERSE ENVIRONMENTAL IMPACTS	39
V.	ALTERNATIVES	39
	A. No Action	39
	B. Renovation of Existing Facilities and Services	39
	C. Lease Office Space	40
	D. Selection of An Alternate Site	40
VI.	RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	40
VII.	IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES	41

		Page
VIII.	INDICATION OF WHAT OTHER INTERESTS AND CONSIDERATIONS OF GOVERNMENTAL POLICIES ARE THOUGHT TO OFFSET THE ADVERSE ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION	41
IX.	ORGANIZATIONS CONSULTED	42
X.	APPROVALS TO BE OBTAINED	43
REFERENCES, STUDIES AND REPORTS		45
PLATES		
APPENDIXES		
A.	NOISE IMPACT STUDY	
B.	RESPONSES TO NOISE LEVEL TEST AT KAHUKU SCHOOL, OCTOBER 13, 1976	
C.	AGENCY COMMENTS REGARDING PROPOSED SITE	
D.	COMMUNITY COMMENTS REGARDING SITE SELECTION	
E.	HISTORICAL OR ARCHAEOLOGICAL SITES	
F.	EIS COMMENTS AND RESPONSES	

SUMMARY

ENVIRONMENTAL IMPACT STATEMENT

FOR THE KAHUKU AMBULANCE, FIRE AND POLICE STATIONS

Kahuku, Oahu, Hawaii

Responsible Office:

Building Department

City and County of Honolulu

650 South King Street

Honolulu, Hawaii 96813

1. Name of the Action:

Kahuku Ambulance, Fire and Police Stations

2. Description of the Action:

The Kahuku Ambulance, Fire and Police Station is a City and County planned and funded project involving the site selection and construction of a new police district station, and a fire station complex containing an engine company, hose tower, and emergency ambulance facility building. The project consists of a 4.0 ± acre site, located at Kahuku on the Island of Oahu, Hawaii. The project site is adjacent to Kahuku High School and along the south boundary of Kamehameha Highway (approximately 60 feet, ROW), located at TMK: 5-6-06:6 (portion), 16 (portion).

3. Environmental Impacts:

A. Relocation of two single-family dwelling units and families is planned and will be carried out in accordance with Hawaii's Relocation Act 166, Session Laws of Hawaii (SLH), 1970.

B. The project will upgrade the existing ambulance, fire, and police services. This improvement to the site and surrounding environs will bring an increase in traffic, siren, and helicopter noises at unspecified times.

C. The construction of the project will create limited dust, noise and traffic inconveniences to the neighborhood.

4. Adverse Environmental Impacts:

A. Vehicular traffic will be attracted towards the police facilities because of the services to be provided.

B. Temporary noise and dust during construction will occur.

C. The helicopter will create noise during landing and takeoff at unspecified times.

D. The relocation of three single-family dwelling units and/or families will be followed through in accordance with Hawaii's Relocation Act.

E. Due to FAA clearance regulations for helicopter landing and takeoff, future use of surrounding lands could be restricted.

5. Alternatives:

The alternatives considered were: no action, renovation of existing facilities and services, lease office space, and the selection of another site.

6. Coordination:

A. Federal Agency:

1. Department of Transportation, Federal Aviation Administration
2. Department of Interior, Bureau of Sport Fisheries and Wildlife
3. U. S. Army Corp of Engineers

B. State Agencies:

1. Department of Education
2. University of Hawaii - Cooperative Extension Services
3. Department of Planning and Economic Development
4. Department of Social Services and Housing
5. Department of Health
6. Department of Transportation
7. Department of Agriculture
8. Hawaiian Housing Authority

C. City and County of Honolulu:

1. Office of Information and Complaint, Hauula Satellite City Hall
2. Department of General Planning
3. Department of Land Utilization
4. Department of Public Works
5. Department of Transportation Services
6. Board of Water Supply
7. Police Department
8. Fire Department
9. Department of Health
10. Department of Housing and Community Development
11. Department of Corporation Counsel

D. Other:

1. Kahuku Housing Corporation
2. Campbell Estate
3. Hawaiian Telephone Company

I. DESCRIPTION OF PROPOSED ACTION

A. Location

As recommended in the site selection report, "Kahuku Ambulance, Police and Fire Station Study", the proposed project site is identified by Tax Map Key 5-6-06:6 (portion), 16 (portion). The site is located along the southern boundary of Kamehameha Highway (60 feet R.O.W.), and adjacent to Kahuku High School, with a land area of approximately 4.0 acres (see attached Plate No. 1, Site Location Map, and Plate No. 2, Detailed Land Use Map).

B. Objective

To provide a more effective and efficient ambulance, police and fire protection service for the Koolauloa District.

C. Need and Background

1. Description of District

The proposed station will service an area from Hauula to Kawela Bay as indicated on Plate No. 3. Predominant land use is residential and agricultural, although notable exceptions are the Inscon (Kuilima) and Grosvenor resort developments, conversion of Kahuku Sugar Mill, Polynesian Cultural Center, Church College, and Mormon Temple.

Population projections for the area indicate that the population will continue to increase. The City and County General Plan (adopted under Resolution 238 in January, 1977) predicts a 34 percent increase in the Kahaluu-Kahuku area between the years 1975 and 2000.

The current uncertain economic situation accounts for the difficulty in predicting the extent of future developments in the Kahuku area. General development plans have been prepared for Laie, Kahuku, and Kawela Bay, within the landholding jurisdictions of Zions Securities Trust, Grosvenor Estates, Campbell Estate, and Inscon Development Company, by their respective consultants dating back to 1974 and are subject to change. However, in 1970, census tracts 101 and 102.02, extending from Waimea Bay to Kaaawa, contained a total of 2,886 housing units, as compared to 3,581 units in 1975.

2. Description of Services

Combining the facilities on one site consolidates the noise generated by the sirens and vehicles. Consolidating the Fire, Ambulance, and Police station will limit the cost factor by sharing general facilities, such as parking and the heliport. This arrangement reduces the cost of acquiring additional land for separate facilities. Design orientation will handle the conflicts of shifts between the Police and Fire personnel.

a. Fire Protection

A temporary fire station facility at Kahuku is presently situated near the center of Kahuku town at the courtesy of Campbell Estate. This courtesy, however, may be withdrawn at any time since no long-term lease exists. The present one-engine garage is located on the mauka side of Kamehameha Highway between the Department of Education school facilities and Kahuku Community Hospital. The nearest fire stations outside of Kahuku are located in Hauula, approximately

6 miles to the south, and Sunset Beach, approximately 8 miles in the opposite direction along Farrington Highway. The Hauula station is equipped as an engine company, as is the facility at Sunset Beach, which also has provisions for expansion to a ladder company with helicopter services.[1]

The standard response distance for first-due fire companies to residential districts is two miles for engine companies, and three miles for ladder companies. Where density within residential districts is low with an average separation of 100 feet or more, the standard response distance for both engine and ladder companies is four miles. For more densely developed residential districts which require more than 2,000 gpm fire flow or where tenement or apartment buildings are three or more stories in height, the standard response distance is one-and-a-half miles for engine companies, and two miles for ladder companies.

All the foregoing standard response distances shall be reduced if narrow or poor condition of streets, traffic, topography or other unusual local conditions hinder response. Other circumstances peculiar to a particular situation may also indicate that such reduction is necessary.[2]

According to the Hawaii Insurance Rating Bureau, the present fire insurance rating in Kahuku is 10, on a scale of 1 to 10,

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1 Kahuku Ambulance, Fire and Police Station Site Selection Study Report, 1974, page 72.

2 Kahuku Ambulance, Fire and Police Station Site Selection Study Report, 1974, page 79.

1 being the most desirable. This low rating is primarily attributable to the poor water system in the area.[3]

b. Ambulance Services

The City and County of Honolulu has a currently established practice of locating proposed ambulance station facilities, as a major component adjunct to new fire station complexes. Existing ambulance service is provided in the Kahuku area by a private ambulance service operating from Kahuku Community Hospital. The nearest City and County ambulance station is located at the Castle Memorial Hospital in Kailua.

The central headquarters for the City Emergency Ambulance Service is based at the Pawaa Annex (Central Police Station). Other ambulance stations located in conjunction with existing fire stations include Waianae, Wailupe, Waipahu, Aiea, Kaneohe, and Waimanalo. The City and County provides ambulance service at the Kaaawa and Waialua stations on weekends and holidays only.

As in other areas, the City and County Ambulance service should be complemented by and not dependent upon private services, which may terminate abruptly (presently contracted on a yearly basis by the City and County of Honolulu).

With increased service demands in this particular area and the dependence on helicopter emergency provisions, close coordination of ambulance service in conjunction with the police and fire department helicopter operations is required.

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3 Op. cit., page 76.

c. Police Protection:

Population, size and sociological makeup, presence of police hazards, frequency and distribution of complaints and reports provide guidance for determination of where police service is required.[4]

"As the size of a community increases, expanded workloads create a need for services of more individuals on the police force. There are more crimes, more traffic accidents to investigate and an increase in the volume of general services to be rendered. Although these expanded workloads eventually create additional work for all police activities, the police element to feel the impact first is the patrol. The logical and apparently, most economical action necessary for continued high standards of safety for growing communities is to increase the number of police officers available for patrol. However, as the number of patrols/beats are increased in the Koolauloa District, the number of effective patrol hours lost due to travel to and from remote district police stations increase."[5]

The establishment of this station would save patrol time in bringing in such items as recovered property, physical evidence, witnesses and suspects for interrogation, and prisoners for booking and temporary incarceration.

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4 Police Substation in Kahuku Area, 1972, page 5.

5 Police Substation in Kahuku Area, 1972, Appendix C.

Comparing the Honolulu Police Department's records of complaints, reports, and arrests, to the population of the Koolauloa District, it is apparent that a dependent relationship exists and can be used as a planning guideline.

The City and County of Honolulu Police Department's large area (Oahu - 604 square miles) of responsibility is the primary factor governing the number of police stations required.

The distances involved from the standpoint of regional service obviates the need for a major police station. The extreme distances traveled result in slow response to calls for police service. A police station for the area would be conducive to improvement of police services.

The police officers assigned to the northern half of HPD District IV, Koolauloa District, are based at the Kaneohe Police Station and must report to and sign-out from this station every day. There is a daily loss of approximately 40 - 90 minutes per officer due to travel time to the various beat assignments. Any arrest necessitates travel back to the station for booking and confinement.

Not only is there a great need for a station at present, but the need will increase in the future. The growth in population for the Koolauloa District projects a 34% increase (DPED figures) from 1975 to the year 2000. This population growth will require a commensurate increase in police services.

D. Project Description

1. General Site Layout

The project entails the construction of a new police district station and a fire station facility containing an engine company, hose tower, emergency ambulance facility building and helipad. The site is fronted by Kamehameha Highway, which allows easy egress and ingress for both the emergency vehicles and citizens. Employee and public parking is provided within the complex (Plate No. 5).

2. Facilities

The construction of two one-story buildings to house a police district station and a combined fire-ambulance station containing a concrete hose tower, approximately 30 feet in height, are scheduled to be constructed independently of each other. An enclosed shooting range will be constructed within the police station complex.

A manpower force of approximately 50 persons will be required to fully staff the new district police station. In addition to the 36 men on beats, radio-telephone operators, desk sergeants, and other personnel are needed to operate the district station. Fifteen persons will be needed to man the new fire station. There will be five persons to a shift, with three eight-hour shifts for 24-hour coverage. The new ambulance facility would require a staff size of nine. There will be two people assigned to each of the three eight-hour shifts, with the rest acting as alternates.

The support facilities include a helipad located towards the rear of the project site conforming with FAA regulations. Two

grassed areas (60' x 60') with paved parking pads (20' x 20'), and refueling pumps for helicopters as required by the fire and police departments will be implemented. A 150-foot, free-standing antenna tower, having a 65-square foot base, will be erected away from the helicopter flight path. Approximately sixty paved parking stalls will be constructed to accommodate the projected staff and visitor parking. The number of parking stalls will comply with the requirements of the Comprehensive Zoning Code.

Other work shall in general, include the following:

- The site will be cleared and graded, and have adequate fill to prevent ponding.
- Landscaping and irrigation.
- 4-inch water service line will be installed.
- Telephone and electrical utility connections.
- Security fencing along portions of the site's boundaries, and perimeter security lights.
- Preservation of large trees over six inches in diameter, as directed.

3. Utilities

a. Sewage

Presently no municipal sewer system exists in the Kahuku area. However, the State Department of Health has approved the use of cesspools for the proposed facilities, until such time that a system is constructed.

b. Water

The City and County Board of Water Supply has plans to construct a source, reservoir, and connecting pipelines at Kahuku to replace the existing source system.* It is planned that the proposed facilities on the project site will connect to this new water system, scheduled for completion by the end of 1977.

c. Communication

The site location may necessitate the use of a radio antenna tower up to a 150-foot height.

Utilization of Hawaiian Telephone Company cables, which are not affected by topography, would be a costly alternative if implemented.

4. Other

An area fronting Kamehameha Highway will be provided for future construction of a bus shelter. Hopefully, as has occurred elsewhere on Oahu, a local civic group will take the initiative to construct such a shelter.

E. Phasing and Timing

The first phase of development for the proposed facilities will be the construction of the police station. Construction of the fire station and associated ambulance facility will be held in abeyance until additional funds are available.

Construction of the police station and support facilities is tentatively scheduled to begin in October 1978. The duration of construction is estimated, under present conditions and constraints, barring unforeseen problems and delays, to be approximately 10 months.

* "Updated Summary of Principal Private Water Systems of Oahu", Board of Water Supply, City and County of Honolulu, December 1976.

II. DESCRIPTION OF ENVIRONMENTAL SETTING

A. Regional Context (Koolauloa District)

1. Natural Environment

a. Topography:

The area between Kawela Bay and Hauula is a generally flat coastal plain seaward of Kamehameha Highway, with ground elevations varying in excess of 20-feet above mean sea level at the roadway grade. The coastal plain is narrow, averaging about one-half mile along most of the coast. The greatest width is about 1-1/2 miles at the northern end of the District, where it is occupied by extensive marshes.

On the mauka side of Kamhameha Highway, land elevations steadily increase approaching the base of the Koolau range. Chiseled into the mountain range are many small valleys with waterfalls and deep gorges at their heads.

b. Water

1) Surface:

There are several natural springs, ponds, and wet swampy areas between Kawela Bay and Hauula on the makai side of Kamehameha Highway. The Master Plan for the Kahuku area proposed by Donald Wolbrink and Associates, Inc. and EDW/Architects and Planning Consultants for Campbell Estate indicates the development of fresh water lagoons and recreational ponds, as well as bird refuge areas.

Lower-lying areas are susceptable to flooding because of the steep inland terrain (Koolau range), and relative flatness of the coastal plain. If highly concentrated

rainfall over a long period occurs in the mountainous areas, flooding may occur in the stream beds at the lower coastal regions.

As designated on the U.S. Army Corps of Engineers 100-year flood prone boundaries map (Refer to Plate No. 6), our project site is outside of the flood zone.

2) Coastal and Ocean

The tsunami inundation zone generally follows the 20-foot contour elevation in the Laie-Hauula area. In the Kahuku area, the potential inundation zone is indicated as far as ½ mile inland on the Corps of Engineer map of flood prone areas (Refer to Plate 6).

c. Climatology

The coastal lowlands in the Kahuku area are typical of windward lowlands, where rainfall is moderate and tradewind showers frequent. Distribution of mean annual rainfall is shown in Plate No. 7.

The average annual temperature is in the mid-70's. Gentle northeasterly trades, varying from 0 - 14 mph are usually present. Sunshine prevails throughout most of the year.

2. Regional Systems

a. Transportation

1) Highways

The Koolauloa Ditrict can only be reached from Honolulu by way of the Pali tunnels and Kamehameha Highway (Route 83) or through Wahiawa via Kamehameha Highway (Routes H-1, 99, and

83. By the former route, Kahuku is about 32 miles from downtown Honolulu and the distance by the latter route is about 40 miles.

Kamehameha Highway serves as the major arterial for shoreline recreation purposes, around the island tours, and conduct of local traffic. Between Waimea Bay and Kaaawa, Kamehameha Highway is a two-lane highway with the paved surface varying in width from 20' to 21', situated within a 50' to 60' R.O.W.

The State of Hawaii, Department of Transportation, presently has no plans for either widening or establishing a new highway alignment for this region. The City and County, Detailed Land Use Map, provides for future widening of Kamehameha Highway and realignment of certain segments.

2) Harbors

The Harbors Division of the State Department of Transportation maintains public boat harbor facilities at Kaneohe and Haleiwa. At the present time, no additional harbor facilities are comtemplated between Kawela Bay and Hauula.

3) Airfields

Kahuku airfield, located west of Kahuku, near the northernmost point of Oahu, is privately owned. The airfield is overgrown with brush and thus is restricted from use by aircrafts except for emergency landings. A portion of the airfield site is leased for the purpose of aquaculture. There are no known future plans for expansion of the airfield.

b. Water System*

The City and County Board of Water Supply has plans to construct a source, reservoir, and connecting pipelines at Kahuku. The new facilities will replace the existing source and reservoir, and will connect with the existing distribution system. The estimated time of completion is by the end of 1977. The Board of Water Supply will then operate the Kahuku System.

c. Sewage System

No public sewage system exists in the Koolauloa District. Several small independent systems with treatment plants have been constructed for certain private subdivisions within the District. Cesspools and septic tanks are presently utilized to accommodate sewage.

The City and County Koolauloa Housing Project includes a secondary sewage treatment system with seepage pits.

d. Communications

Radio communications in the Koolauloa District have experienced transmission problems due to geographic and topographic conditions of the area. There have been instances when police patrol cars operating in this district could neither send nor receive radio signals while patrolling some of the valleys of the Koolau Range. Plate No. 8 depicts undependable areas for electronic communication.

* "Updated Summary of Principal Private Water Systems of Oahu", Board of Water Supply, City and County of Honolulu, December 1976.

Communication to the Kahuku area will utilize microwaves transmitted from the City and County relay station located in Mokapu Crafter. The microwave relay set-up will allow radio contact between Kahuku and Honolulu, without incurring excessive cost, for the use of Hawaiian Telephone Company cables.

A near line-of-sight path is necessary to effect microwave communication. Therefore, the important criteria are topography and foliage.

A 100-feet high microwave receiving tower presently exists in Laie.

3. Public Support Facilities

a. Education

Brigham Young University, Hawaii Campus, is an accredited four-year college, located within Laie. Kahuku High School is the only secondary school serving the Koolauloa District. Rainbow School, a private institution for students of pre-school age through grade six, is located within Kahuku.

b. Parks and Recreational Facilities

Various State, County, and Private parks located within the Koolauloa District provide recreational space and allow access to shoreline areas.

c. Fire Protection

Fire protection for the Koolauloa District consists of a permanent engine company at Hauula with two trucks, a temporary facility at Kahuku with one truck, and an existing engine station at Waimea with helicopter facilities. In Laie, a proposed

fire station facility is programmed by HFD to be implemented about 1979 or 1980.

d. Police Protection

There are no existing police stations in the Koolauloa District. The closest stations serving the region would be primarily the Kaneohe District Station and secondarily, the Wahiawa District Station.

e. Ambulance Service

A private ambulance service, under a yearly contract with the City and County, is stationed at the Kahuku General Hospital.

f. Hospital

The Kahuku Community Hospital is an 18-bed facility with a 24-hour emergency service. The nearest hospitals outside of the Koolauloa District are Wahiawa General Hospital and Castle Memorial in Kailua.

4. Socio-Economic Aspects

a. Land Use

The City and County of Honolulu General Plan, adopted in February, 1977, designates the Kahaluu-Kahuku area as rural. There are three other categories of population areas designated: Primary Urban Center, Secondary Urban Center, and Urban-Fringe. The population-distribution policy of the General Plan seeks a mean or average percentage of Oahu's residential population for each of these areas. The percentage sought for the Kahaluu-Kahuku area in the year 2000 is about 2% of Oahu's total population.

This percentage is approximately the same as it was in 1975, in an effort to maintain the Island's rural populations in general.

b. Economic Base and Regional Industries

Agriculture and the tourist industry are the major areas of employment within the Koolauloa District.

With the closing of the sugar plantation and mill, emphasis was extended to diversified agriculture. The two largest agricultural farms are guava and feed corn. Smaller farms consist of papaya, diversified fruits, and prawn ponds.

Tourism is the major economic source of the Koolauloa district. Kuilima, Polynesian Cultural Center, Church College, Mormon Temple, and the conversion of the Kahuku Sugar Mill are major tourist destinations.

c. Demography*

1) Population

Population in the Koolauloa District has increased from 10,562 individuals in 1970 to 11,258 in 1975 over a land area of 43,393 acres.

2) Housing

In the Koolauloa District housing has increased from 2,886 units in 1970 to 3,581 units in 1975. This trend is expected to continue as the population increases.

d. Proposed Major Developments

General development plans exist for Laie lands by Zions Securities and Grosvenors Estates, for Kahuku by Campbell

* "Population and Housing Unit Estimates for Oahu Census Tracts, 1970-1975", Report CTC-32, Census Statistical Areas Committee, State of Hawaii, April 26, 1976.

Estates, for Kawela by Inscon Development Company, and for a 300-unit support housing development by the Department of Housing and Community Development.

e. Historic or Cultural Factor

1) Archaeological Sites

In the Koolauloa District, there are 11 known archaeological sites, some of which are on the Hawaii Historic Register.

2) Historical Structures

With the exceptions of the Kahuku Mill, which is being retained and renovated for commercial purposes, and the abandoned railroad, which once connected the Koolauloa District to Honolulu, no other known significant historical sites exist.

3) Bird Refuge Areas

Numerous bird refuge areas exist along the coastal zone from Kawela Bay to Hauula. Ponds which are or will become bird refuges are Kii, and Punamano. These are under control through a lease by the Federal government.

f. Aesthetics

The Koolauloa District is very scenic with picturesque parks, camping sites, historical features, and open countryside. The mountain vista retains a rugged and wild character, with little evidence of artifact or urbanization. There are many vistas along the coast to allow visual appreciation of the ocean and land area.

B. Environs - Kahuku Town

1. Land Use

a. State Land Use Commission

The State Land Use Map (See Plate No. 9) indicates Kahuku Town as an urban district.

b. City Zoning

The City Zoning Map (See Plate No. 10) designates the town area as R-6 Residential District and Planned Development-Shopping Center District No. 1.

c. Actual Land Use

Presently, the land uses are residential, commercial, school, agricultural, hospital, golf course, and beach park.

The uses of the surrounding areas of the proposed site are single-family residential, agricultural, and education.

2. Planned or Proposed Developments

The major proposed development in the Kahuku town area is the Koolauloa Housing Project by the City and County. Development plans are currently in progress.

3. Neighborhood Quality

a. Noise

Refer to Noise Impact Study in Appendix A.

b. Traffic

The Land Transportation Facilities Division has no immediate plans for replacing or widening the existing Kamehameha Highway through Kahuku town or developing an alternate alignment.

At this time, no traffic counts have been made in the Kahuku area. The nearest traffic count was made at Kii Bridge, approximately 0.4 miles west of the Kahuku Sugar Mill, in June, 1975.

c. General Aesthetics

The Kahuku area still maintains much of its plantation town character, physically and culturally. Since the closedown of the plantation, the town has become more of a residential community.

C. Site

1. Topography

The project site is a 4± acre parcel, approximately rectangular in shape. The land is relatively level. A small hill (slope 5% and greater) is situated immediately south of the site (see Plate No. 4).

2. Land Use

a. Designated

The project site is designated as urban on the State Land Use Map and as R-6 Residential District on the City and County Zoning Map. According to the City and County Comprehensive Zoning Code (CZC), Section 21-501 (Use Regulation), public buildings and uses are permitted under the R-6 zoning.

b. Actual

The uses of the project site are agricultural and residential; there exists three single family dwelling units and a plant nursery on the site. However, the majority of the site is overgrown and presently not used.

3. Soils

The soils of the site are Mokuleia Clay Loam and Jaucas Sands. (Data source: Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii by United States Department of Agriculture Soil Conservation Service, August, 1972).

Permeability of Mokuleia clay loam is moderate in the surface layer and rapid in the subsoil. Runoff is very slow, and the erosion hazard is slight. It also has moderate to low shrink-swell potential; low potential below a depth of 20 inches. Mokuleia clay loam has only slight limitations for use as septic tank filter fields as there is rapid permeability below a depth of 20 inches.

Permeability of Jaucas Sand is rapid, and runoff is slow. The hazard of water erosion is slight, but wind erosion is a severe hazard where vegetation has been removed. The degree of limitation for septic tank filter fields is slight and Jaucas Sand permits rapid permeability.

4. Flora and Fauna

a. Fauna

The existing fauna are field mice, toads, mongooses, insects, and lizards.

b. Flora

The project site was originally cleared by the presently defunct Kahuku Sugar Plantation for cultivation of sugar cane. Presently, the vegetative cover of this relatively flat land is comprised mainly of weeds and grasses.

A floral survey was conducted for the project site on December 1, 1976. (Other than large trees, this survey did not include plants growing on the 3 houselots to be incorporated in the project site). None of the plant species identified on the project site are included on the Department of the Interior, Fish and Wildlife Service proposed list of endangered or threatened plants (Federal Register, June 16, 1976). No plants of endemic status were identified, and the only indigenous plant noted was the common morning glory (*Ipomoea insularis*), which is not considered to be either endangered or threatened.

Following is a list of plants identified on the project site.

Grasses	Bermuda grass, *Cynodon dactylon*
	Finger grass, *Choris spp.*
	Burr grass, *Cenchrus echinatus*
	Bristly foxtail, *Setaria verticillata*
Vines	Morning glory, *Ipomoea insularis*
	Scarlet-fruited passion flower, *Passiflora foetida*
	Balsam apple, *Momordica balsamina*
	Hyacinth bean, *Dolichos lablab*
Shrubs	Desmanthus, *Desmanthus virgatus*
	Haole koa, *Leucaena leucocephala*
	Spiny amaranth, *Amaranthus spinosus*
	Sensitive plant, *Mimosa pudica*
	False mallow, *Malvastrum tricuspidatum*
	Fuzzy rattlepod, *Crotolaria incana*

Horseweed, Erigeron canadensis

Stick tights, Bidens spp.

Wild spurge, Poinsettia geniculata

Chinese violet, Asystasia gangetica

Lions ear, Leonotis nepetaefolia

Jamaica vervain, Stachytarpheta jamaicensis

Trees

Umbrella tree, Brassia actinophylla

Christmasberry tree, Schinus terebinthifolius

Coconut tree, Cocos nucifera

Ironwood, Casuarina spp.

False kamani or tropical almond, Terminalis catappa

Norfolk Island Pine, Araucaria heterophylla

Kalomona, Psilorhegma glauca

5. Archaeology and Historic Perspective

There are no known archaeological or historic sites on the project site (see Appendix E).

6. Site Support Facilities

a. Sewage

The three residences on the project site presently utilize cesspools.

b. Water

A surface, 3" plastic, waterline owned by Campbell Estate presently runs across the site to the existing plant nursery.

c. Access and Roads

The project site being recommended relates strongly to the existing and proposed transportation networks. The accessibility

to the site in the immediate and long range development plans is very convenient.

The County Detailed Land Use Map proposes a future highway with a 120-foot right-of-way, 500-feet mauka of the site.

d. Communication

The site is subject to transmission problems due to geographic and topographic conditions. Microwave radio is preferred by the City, but its effectiveness is strongly affected by foliage and topography.

e. Drainage

The site is a relatively level area and runoff from the hill at the rear during heavy rainfall does not present a problem.

Percolation is the only means of drainage, since no drainage system exists in this area.

The City and County General Plan DLUM of the site does not indicate any unbuildable flood plains.

III. PROBABLE IMPACTS AND MITIGATIVE MEASURES

A. Short-Term (Construction Related)

1. Air Quality

Exhaust from construction machinery and fugitive dust produced by site preparation work will affect ambient air quality. Tradewinds will disperse airborne pollutants and particulate matter in a southwesterly direction, the range dependent upon wind velocity. Air quality impacts attributable to construction activities will be incurred primarily during the critical phase of work requiring heavy machinery for grading.

Precautions to minimize dust such as watering down cleared land areas under construction will be implemented.

2. Erosion and Water Quality

During the grading phase of this project, the site will become vulnerable to the natural elements and subsequent erosion. Water quality within the drainage system and ultimately the receiving waters may be affected.

This is only a temporary situation, however, and all practical measures of mitigation shall be applied. Strict adherence to the City and County Grading, Soil Erosion, and Sediment Control ordinances should minimize adverse impacts.

3. Traffic

Disruption to present traffic patterns in Kahuku during the project construction is unavoidable. During site development, the movement of construction equipment and vehicles egressing and ingressing the site will be controlled by flag men or police officers.

In addition, every effort will be made to provide and maintain all necessary signs and protective facilities during construction in conformance with the following:

- "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways"
- Part VI of the Federal Highway Administration "Manual on Uniform Traffic Control Devices for Streets and Highways"

4. Safety

No compromise to safety during any phase of construction or operation will be made.

Open trenches, construction material, and machinery may pose potential hazards to motorists, pedestrians, or children playing in the area. Precautions will be taken to minimize the possibility of any accidents occurring as a result of construction activities.

5. Noise Pollution

During construction, noise level due to the use of construction equipment will temporarily rise and will be annoying to occupants of Kahuku Elementary, Intermediate and High Schools and residents within 600 feet radius from the job site. The latter includes about 12 residences abutting Kamehameha Highway. Most of the affected residences are up-wind from the job site. The impact of the noise and dust will be reduced most of the time. The school is down-wind from the job site and therefore will receive the maximum impact of the noise and dust. The noise level inside the classrooms

and residences is expected to vary between 65 dBA and 75 dBA, depending on the location of the earth moving equipment. The earth moving operation is expected to last about two weeks.

Construction Noise Abatement

a) To reduce the impact of construction noise, the State Department of Health's "Community Noise Regulation for Oahu", Chapter 44B would be strictly enforced.

b) The earth moving or grading operation would be carried out after school hours or during periods when school is not in session (summer, Easter and Christmas recess).

c) If grading must be carried out when school is in session, the contractor shall be required to put up a temporary noise barrier wall 8 feet high along the boundary between the school and the site. The barrier wall shall be made up of 10 gauge corrugated steel, or 2 inch T & G, or double wall 5/8 inch plyboard.

6. Employment

The design and construction phase will provide additional employment for the design consultant and construction force. This project will require a temporary labor force for construction. After completion, personnel will be required to operate and maintain the new ambulance, fire, and police facilities.

B. Long Term

1. Social

a. Public Safety

The project's objective is to provide effective and efficient ambulance, police, and fire services to the Koolauloa District. Presently, the community has minimal police protection and only adequate fire protection and ambulance service.

b. Neighborhood Character

The project will not disturb the present character of the neighborhood. The neighborhood may, in fact, be enhanced by the construction of these new facilities. The proposed facilities and open spaces will be aesthetically landscaped.

c. Relocation

The City will purchase a portion of Parcel 6, which contains three residences. Two of these residences will be relocated in accordance with Hawaii's Relocation Act 166, Session Laws of Hawaii (SLH), 1970.

2. Economics

a. Services

The proposed facilities would enable the residents to obtain fire and police protection and medical services at higher levels of efficiency. Once the residents become familiar with the driver's licensing services to be offered, less trips to Kaneohe station or Honolulu station will be made, resulting in savings in automobile fuel, wear and tear of vehicles and highways.

b. Direct Project Cost

The total project cost is estimated to be as follows:

Planning and Engineering	$ 140,000.00
Construction	1,400,000.00
Equipment	145,000.00
Beautification	15,000.00
Land (Acquisition)	250,000.00
*TOTAL	$1,950,000.00

* The above figures were based on Building Department's 1977 - 1978 CIP Cost Estimate.

3. Environmental

a. Aesthetics

The setting and location of the facility have been coordinated with the Police and Fire Departments and community groups. Also, the facilities will be easily accessible and identifiable from the existing highway.

Since existing structures in the immediate area consist of low profile buildings, the two proposed one-story buildings will be compatible to the surroundings.

b. Public Utilities

Except for electricity and telephone, the project will not be serviced by public utilities. In this area, the water distribution system is private. Arrangements to connect to the private system will have to be made with the Kahuku Community Association. There are no sanitary sewage or storm drainage systems.

c. Drainage

The drainage for the project site will be handled on the site itself. Possible methods are minor swale work, a culvert, or a drywell. The sump areas of the site which currently pond during heavy rains will be filled with earth to develop usable area for the proposed facilities and to aid drainage.

d. Waste Disposal

According to the Sewers Division, Department of Public Works, there are no public sanitary sewers in the area. The Department of Health has authorized the use of cesspools as an interim measure for the disposal of domestic sewage (Appendix C, Department of Health).

Also, it appears possible to tie in the proposed project with the Koolauloa Housing project sewer system. Coordination with the appropriate agencies to further research this possibility will be conducted when design plans become more definite.

e. Education

Use of this site will not conflict with any Department of Education expansion plans for Kahuku School. (Appendix C, Department of Education).

f. Noise (Appendix A, Noise Impact Study; Appendix B, Responses to Helicopter Noise Level Test.)

To determine whether or not the use of siren and helicopters would be a problem as a result of this project, a recognized noise consultant was engaged to conduct a noise study. The report, "Noise Impact Study for Kahuku Police and

Fire Station, Kahuku, Oahu, December 13, 1976" is incorporated as reference in this EIS and is included herein as Appendix A "Noise Study". In addition to the noise study, a helicopter landing and take-off noise test was conducted on October 13, 1976 at the proposed site. Representatives from Kahuku School and community groups were present as observers. Their reactions and comments are also incorporated as reference in this EIS and is included herein as Appendix B.

Noise Studies were conducted for two sites. Site A is located at the north end of Kahuku Village and east of Kahuku Hospital. The site is approximately 200 feet seaward from Kamehameha Highway. Site B is located adjacent to Kahuku Elementary, Intermediate and High School and is approximately in the middle of the residential area. Of the two sites, Site A would have the least noise impact on the Community. However, Site B was selected for the proposed project.

Problem Area

Annoyance increases with the loudness of the intruding noise as compared with the ambient noise, and the number of disturbances. Site A offers the least noise problem during construction and during normal operation and maintenance because the site is removed from populated areas. Site B, being in the midst of noise sensitive area, will require noise abatement measures.

A) Siren Noise Site A or B

Table (1) and Figure (2) of the referenced noise report, Appendix (A), show that the noise level of the

siren within the assumed 90° distribution pattern, exceeds the normally acceptable outdoor level of 65 dBA up to 4800 feet from the siren. This means that residents living as far out as 3000 feet on both sides of the Highway would be exposed to noise level above 65 dBA. Residents near the Highway would be exposed to noise level over 100 dBA. The daytime complaint from residents more than 1200 feet away from the Highway is expected to be few and mild. The nighttime complaint, however, is expected to be numerous and vigorous if the siren is turned on for more than a second or two. Numerous daytime and nighttime complaints are expected from residents less than 1000 feet from the siren.

Figure (1E) shows the area from which vigorous complaints can be expected if the vehicle traveled along the Highway with the siren turned on. The outdoor noise level near the Highway will be over 100 dBA and will be over 75 dB at the outer fringe. This would include approximately 90 percent of the residences in Kahuku Village. Residents across the Highway from the school would also be exposed to the same noise levels. The outside noise level at the hospital is expected to reach as high as 81 dBA if the siren is turned on near the hospital. The inside noise level is expected to reach 71 dBA. This is entirely too loud for sick patients.

Helicopter Noise

The impact of helicopter noise on a community depends on its activity. The impact is large during pre-take-off maneuvers, take-off, landing, and low level (400 feet or lower) hover and fly-by.

A) Fly-By

When in flight, the noise reaching the ground depends on the elevation of the craft, air absorption and wind velocity.

Above 600 feet elevation, the decrease in ground level noise is approximately 1 dB per 100 feet increase in elevation. Below 600 feet, the ground level noise increases approximately 2 dB per hundred feet decrease in elevation down to 200 feet. From this point on, every halving of the elevation will increase the noise level by approximately 6 dB.

The exposure time to noise above the normally acceptable outdoor level of 65 dBA, depends on the height of the helicopter and its speed. People under the flight path of a Fire Department helicopter flying at an elevation of 600 feet at 30 mph will be exposed to noise level above the normally acceptable level for one minute and 13 seconds. At 600 feet and 50 mph, the exposure time will drop to 44 seconds.

A helicopter flying at an elevation of 600 feet or more at 50 mph will generate very few complaints at any time. However, a helicopter flying at 400 feet elevation

and 30 mph will generate numerous and vigorous nighttime complaints. Fly-by over a classroom at 400 feet elevation and 50 mph would be disruptive for over 1/2 minute (60-69 dBA inside classroom).

B) Take-Off

The impact is largest during pre-take-off maneuver and during take-off. The noise level expected during take-off is shown in referenced noise report Appendix A (See Table 5 and Figure 8).

To help visualize the above data, the expected noise levels have been re-plotted and included here as ground level noise contours. (See Figure 2E).

The pre-take-off and take-off activities will have adverse effects on classroom operation at Kahuku School, and on approximately 90 residences near the heliport and along the flight path. This is estimated to be approximately 10% of the existing residences in Kahuku Village.

During pre-take-off maneuvers and take-off, the outdoor noise level at Kahuku School and residences across the Highway will range between 87 dBA near the project site to 72 dBA 900 feet from the site. The noise would be annoying for occupants of classrooms and residences within 600 foot radius from the helipad. After take-off, residents under and as far out as 500 feet on both sides of the flight path and 1500 feet from the helipad will be

exposed to noise levels 75 dBA and over for approximately 22 seconds.

Few daytime complaints are expected from those living within 500 foot radius from the heliport. At night, vigorous to mild complaints are expected from residents within 1000 foot radius from the heliport.

C) Landing

The landing approach takes place over unpopulated canefield. Except for Kahuku School, no adverse noise effect is anticipated.

Classroom activities will be affected if the helicopter hovers too long before landing on the helipad.

D) Responses to Helicopter Noise Test

Except for some complaints from classroom teachers at Kahuku School, the representatives from Kahuku Community Association and neighboring community associations felt that the noise will not affect their life style and approved the proposed Site B for the Fire and Police Station.

E) Corrective Measures

Police and Fire Department vehicles, when responding to an emergency, are exempt from both the City & County of Honolulu's noise code and the State Department of Health's noise regulations Chapter 44A and 44B. However, in the public interest, the following proposals to reduce the noise impact have been recommended by our consultant.

1. Use of Siren (Police, Ambulance and Fire Trucks)

   a. Siren should be used only when necessary.

   b. If necessary, it should be turned on for not more than one or two seconds.

   c. It should not be turned on less than 1600 feet from Kahuku Hospital or Kahuku School.

2. Helicopter Operation

   a. To reduce the noise impact on the Kahuku Elementary, Intermediate and High School, an 8 foot high acoustic barrier wall should be constructed along the boundary of the school and the proposed site.

   b. The ground level operations before take-off and after landing should be completed as soon as possible.

   c. Engine run-up check and maintenance work should be carried out, whenever possible, after school hours.

   d. All fly-by over Kahuku Village should be at an elevation over 600 feet.

   e. Flight over the school or hospital at an elevation 400 feet or less should be strictly avoided.

g. Archaeological and Historical

No sites of archaeological or historical significance will be affected by this project (Appendix E, Archaeological and Historical Sites).

h. Fauna and Flora

The property does not contain any threatened or endangered flora species. The existing fauna consists of rodents, insects, lizards, and transient birds. Once the habitat of the fauna is destroyed, they will relocate to adjacent undeveloped areas.

(Appendix C, Agency Comments; Appendix D, Community Comments)

IV. ADVERSE ENVIRONMENTAL IMPACTS

- Vehicular traffic will be attracted towards the police facilities because of the services to be provided.
- Noise from sirens and vehicles occurring at unspecified times.
- Helicopters creating noise during landing and take-off at unspecified times, which has been accepted by the community organizations.
- Due to FAA clearance regulations for helicopter landing and take-off from the helipad, surrounding land uses will be restricted.

V. ALTERNATIVES

A. No Action

Continuation of the present system would further inconvenience the residents in the growing Kahuku area. Proper services for fire and ambulance would not be available. The continuing fuel expense and loss in travel time for the police would be costs incurred.

B. Renovation of Existing Facilities and Services

Renovation of the existing fire station facility would be impractical. The land it is situated on is planned for use as a part of the proposed Kahuku District Park, City and County of Honolulu. This would necessitate relocation at that time, to a new temporary quarters, or establishment of a new permanent facility.

The ambulance operation is presently contracted to a private service on a yearly basis. This is an unstable situation for the City to maintain in respect to the welfare of the community.

The police services would need to incorporate additional men to provide adequate coverage to the growing community, resulting in a greater total loss of traveling time.

C. Lease Office Space

Lease office space is not available in the immediate area. Based on grovernmental experiences with short and long term leasing of buildings, it is more economical to construct a new facility.

D. Selection of an Alternative Site

The Site Selection Study Report completed by Wilson Okamoto and Associates in February 1974 involved ten alternate locations. These sites are mapped on Plate No. 11. A summary of the evaluation in matrix form is included in Plate No. 12.

The final selected site was Site B-2 in the Site Selection Study. The recommendation of this site was based on the requirements of participating agencies, on physical constraints, and on the preferences of community organizations which were clearly expressed through letters and informational meeting held in Kahuku. Although there were drawbacks the site due to the cost of acquisition and noise impact to surrounding urban areas, the strong community support led to its eventual selection.

VI. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY.

The short-term effect on man's environment during construction of the police, fire and ambulance station will be offset by the long-term value

gained by promoting the City and County goal of providing protection and prevention services to maximize the safety and well-being of residents.

Implementation of the police, fire and ambulance services will upgrade the social and economic welfare of the residents by the availability of modern and efficient public services.

VII. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The proposed police, fire and ambulance station will commit, irreversibly and irretrievably, labor and material resources, as well as the monetary resources required for governmental administration of the project.

Some vegetation and immobile organisms will be irretrievably lost but no economically important flora or fauna will be affected, and the overall effect on the ecology of the area will be negligible.

VIII. INDICATION OF WHAT OTHER INTERESTS AND CONSIDERATIONS OF GOVERNMENTAL POLICIES ARE THOUGHT TO OFFSET THE ADVERSE ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

The Honolulu Fire Department's powers, duties and functions are the prevention and extinguishment of fires and the necessary protection of life and property connected therein for the City and County of Honolulu.

The Honolulu Police Department's powers, duties and functions are the protection of life and prevention of crimes.

The City and County ambulance units provide for an island-wide network of emergency ambulance and first-aid services.

These governmental policies are reason enough to offset the earlier described (Section V) adverse environmental effects of the proposed action.

IX. ORGANIZATIONS CONSULTED

A. Federal Agencies

1. Department of Transportation, Federal Aviation Administration
2. Department of Interior, Bureau of Sport Fisheries and Wildlife
3. U. S. Army Corps of Engineers

B. State Agencies

1. Department of Education
2. University of Hawaii-Cooperative Extension Services
3. Department of Planning and Economic Development
4. Department of Social Services and Housing
5. Department of Health
6. Department of Transportation
7. Department of Agriculture
8. Department of Land and Natural Resources
9. Department of Planning and Economic Development, Land Use Commission

C. City and County of Honolulu

1. Office of Information and Complaint, Hauula Satellite City Hall
2. Department of General Planning
3. Department of Land Utilization
4. Department of Public Works
5. Department of Transportation Services
6. Police Department
7. Fire Department
9. Board of Water Supply
10. Department of Housing and Community Development
11. Department of Corporation Counsel

D. Civic Organizations

1. Hauula Community Association
2. Punaluu Community Association
3. Laie Community Association
4. Kahuku Community Association
5. Kaaawa Community Association
6. Kahana Valley Community Association
7. Koolauloa Neighborhood Board No. 28

E. Private Organizations

1. Campbell Estate
2. Kahuku Housing Corporation
3. Hawaiian Telephone

X. APPROVALS TO BE OBTAINED DURING DESIGN STAGES

A. City and County of Honolulu

1. Department of Land Utilization
2. Division of Engineering
3. Lot Grading
4. Highway
5. Drainage
6. Division of Sewers
7. Fire Department
8. Honolulu Redevelopment Agency
9. Board of Water Supply
10. Building Department

B. State of Hawaii

1. Department of Health
2. Fire Marshal

3. Department of Land and Natural Resources

4. Department of Transportation, Land Transportation Facilities Division

C. Federal Agencies

1. Federal Aviation Administration

2. Federal Communications Commission

REFERENCES, STUDIES AND REPORTS

1. Data Book - A Statistical Abstract, State of Hawaii, Department of Planning and Economic Development, November, 1976.
2. Oahu Water Plan, City and County of Honolulu, Board of Water Supply, July, 1975.
3. 1974 - 1975 Annual Report of the Fire Department, City and County of Honolulu.
4. 1973 - 1974 Annual Report of the Honolulu Police Department, Honolulu, Hawaii.
5. Police Substation in the Kahuku Area - Preliminary Study, City and County of Honolulu, Office of the Budget Director, Report No. 27, January, 1972.
6. Kahuku Ambulance, Fire, and Police Stations Site Selection Study Report, City and County of Honolulu, Building Department, February, 1974.
7. Kahuku Ambulance, Fire, and Police Stations Revised Site Selection Study, City and County of Honolulu, Building Department, February, 1977.
8. Kahuku Town Center, The Estate of James Campbell, March, 1974.
9. Laie General Plan, Zions Securities Corp., 1972.
10. Kahuku Summary Strategy Study, Administration, Inc.

P L A T E S

PLATE NO. 1	SITE LOCATION MAP
PLATE NO. 2	DETAILED LAND USE MAP
PLATE NO. 3	POLICE DISTRICT MAP
PLATE NO. 4	EXISTING TOPOGRAPHICAL MAP
PLATE NO. 5	SCHEMATIC SITE PLAN
PLATE NO. 6	FLOOD PRONE BOUNDARIES
PLATE NO. 7	MEAN ANNUAL RAINFALL
PLATE NO. 8	UNDEPENDABLE AREAS FOR RADIO COMMUNICATION
PLATE NO. 9	STATE LAND USE MAP
PLATE NO. 10	COUNTY ZONING MAP
PLATE NO. 11	ALTERNATE SITE LOCATIONS
PLATE NO. 12	EVALUATION TABLE

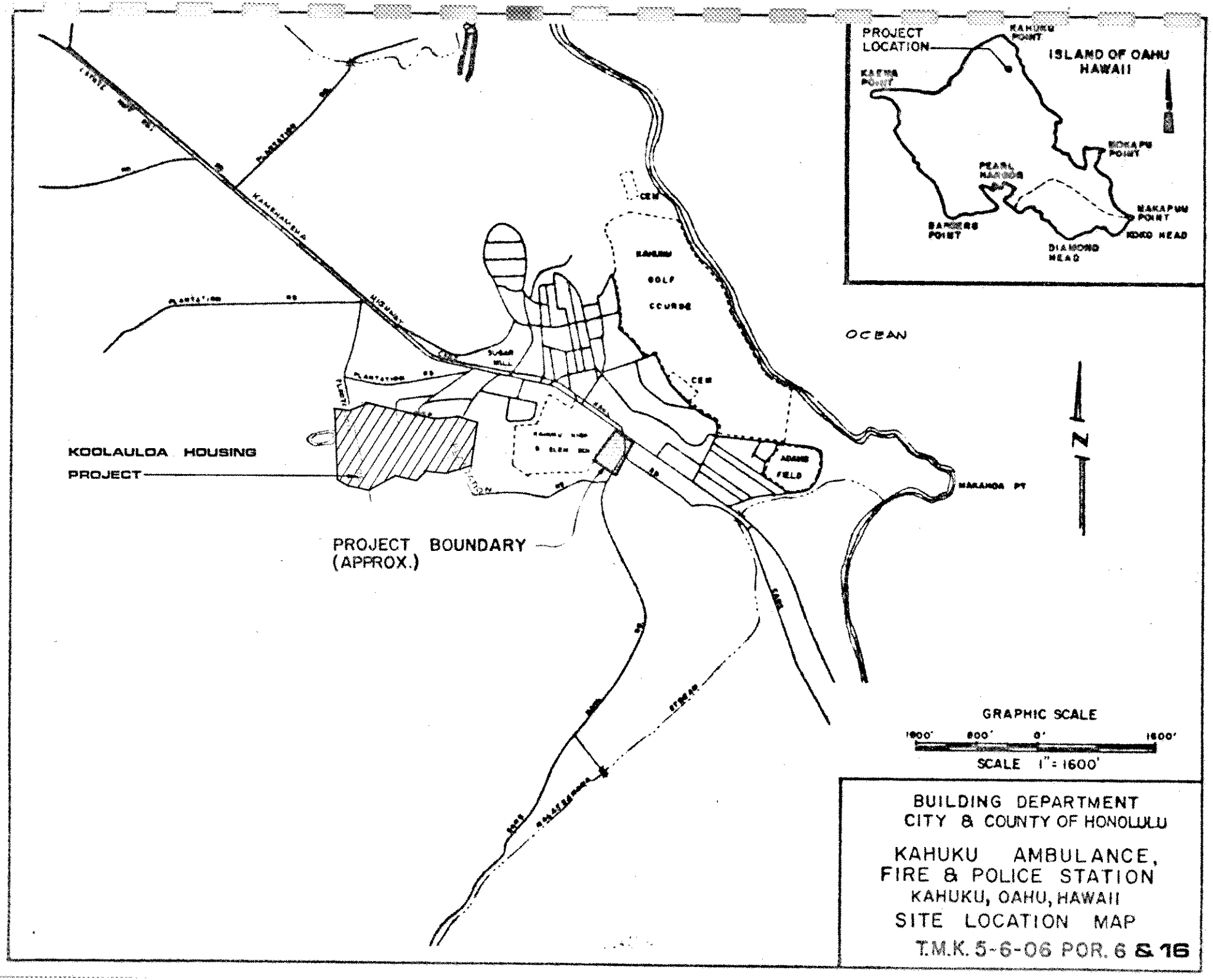
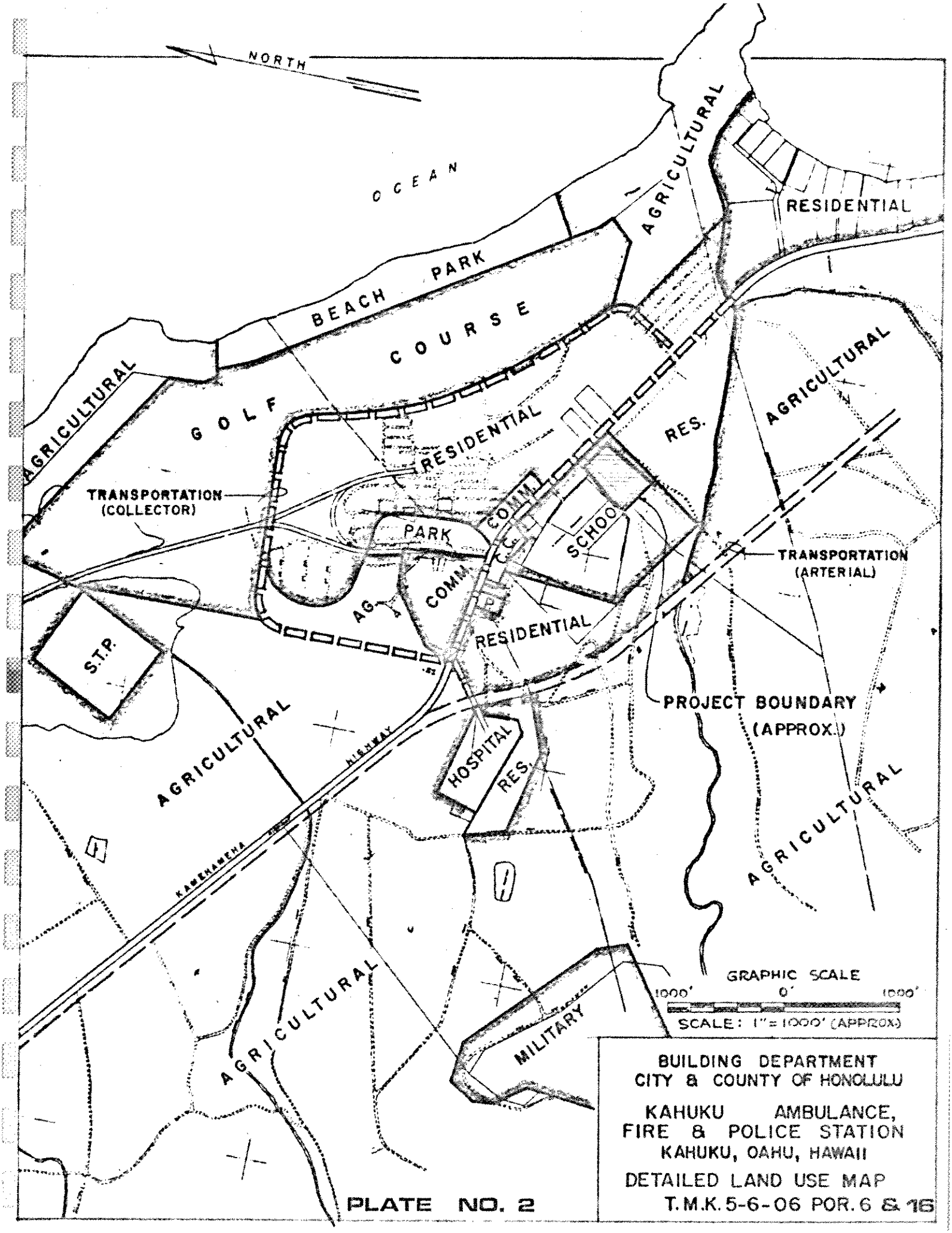

PROJECT LOCATION
KAHUKU POINT
ISLAND OF OAHU HAWAII
KAENA POINT
MOKAPU POINT
PEARL HARBOR
MAKAPUU POINT
BARBERS POINT
KOKO HEAD
DIAMOND HEAD
OCEAN
KAHUKU GOLF COURSE
CEM
SUGAR MILL
KAMEHAMEHA HIGHWAY
PLANTATION RD
KOOLAULOA HOUSING PROJECT
PROJECT BOUNDARY (APPROX.)
ADAMS FIELD
MAKAHOA PT
N
GRAPHIC SCALE
1600' 800' 0' 1600'
SCALE 1" = 1600'
BUILDING DEPARTMENT
CITY & COUNTY OF HONOLULU
KAHUKU AMBULANCE, FIRE & POLICE STATION
KAHUKU, OAHU, HAWAII
SITE LOCATION MAP
T.M.K. 5-6-06 POR. 6 & 16

PLATE NO. 1



BUILDING DEPARTMENT
CITY & COUNTY OF HONOLULU

KAHUKU AMBULANCE,
FIRE & POLICE STATION
KAHUKU, OAHU, HAWAII

DETAILED LAND USE MAP
T.M.K. 5-6-06 POR. 6 & 16

PLATE NO. 2

SOURCE:
Police Substation in the Kahuku Area, Preliminary Study
Office of the Budget Director
City and County of Honolulu
Report No. 27
January 1972

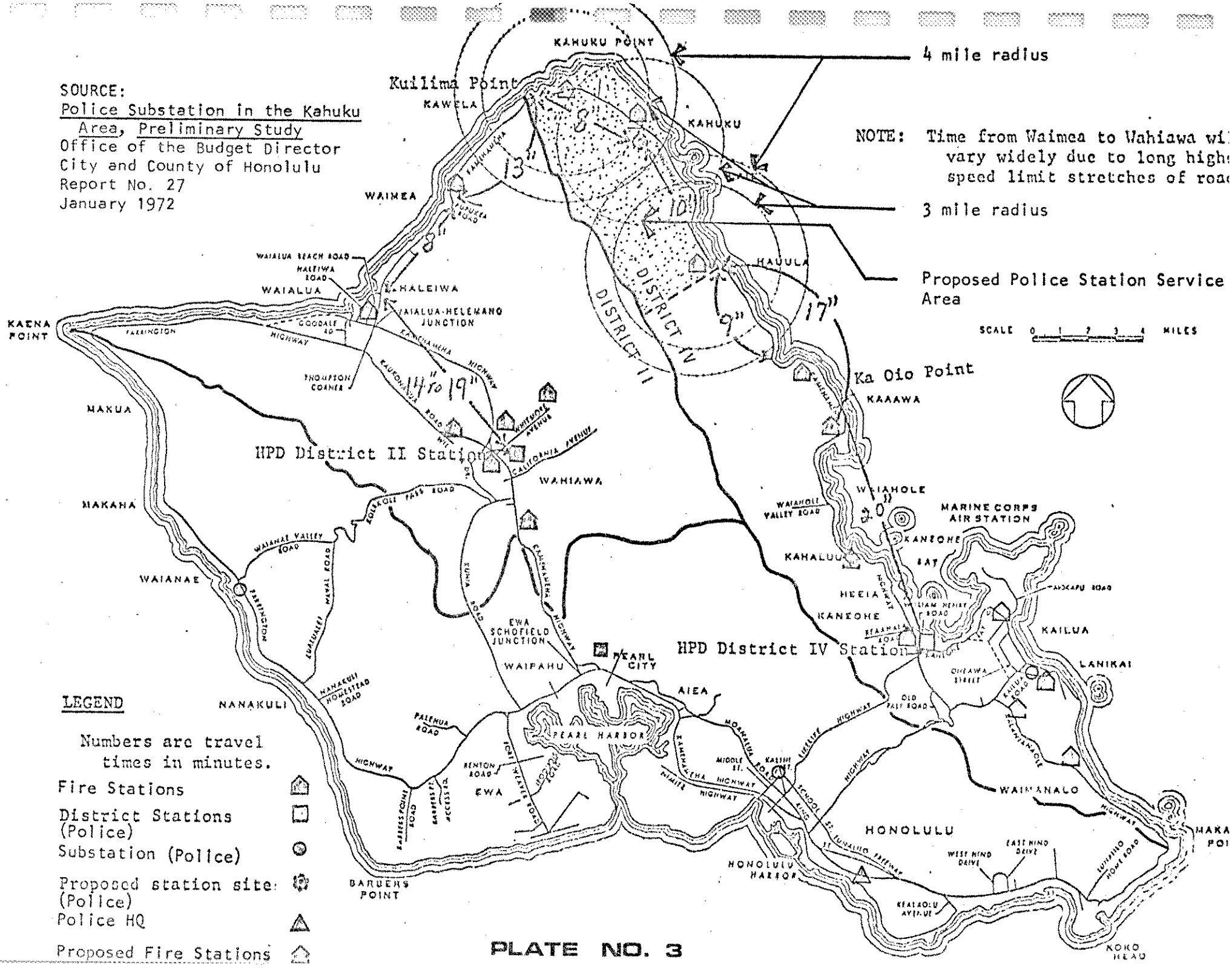
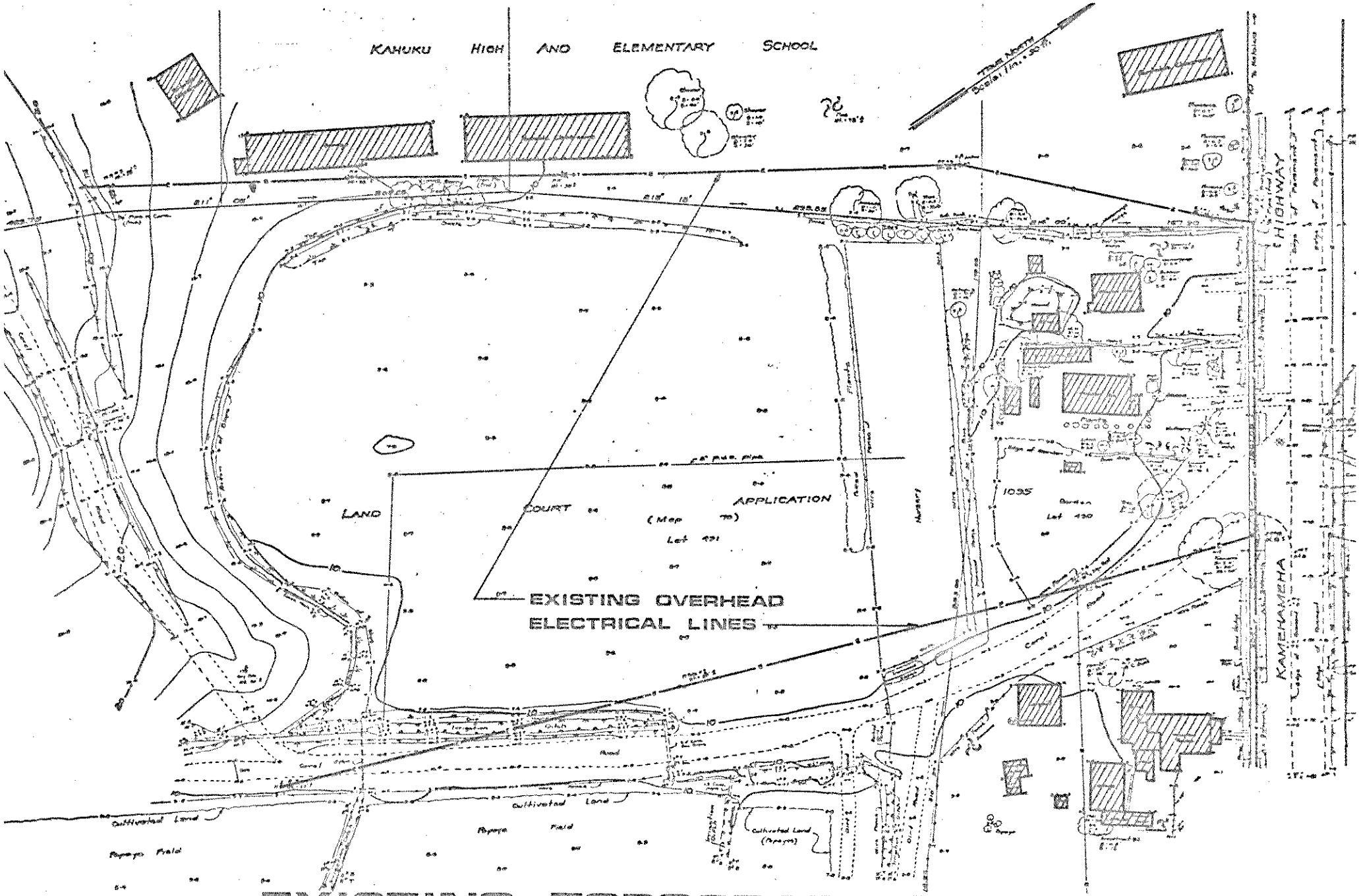


PLATE NO. 3



EXISTING TOPOGRAPHICAL MAP

PLATE NO. 4

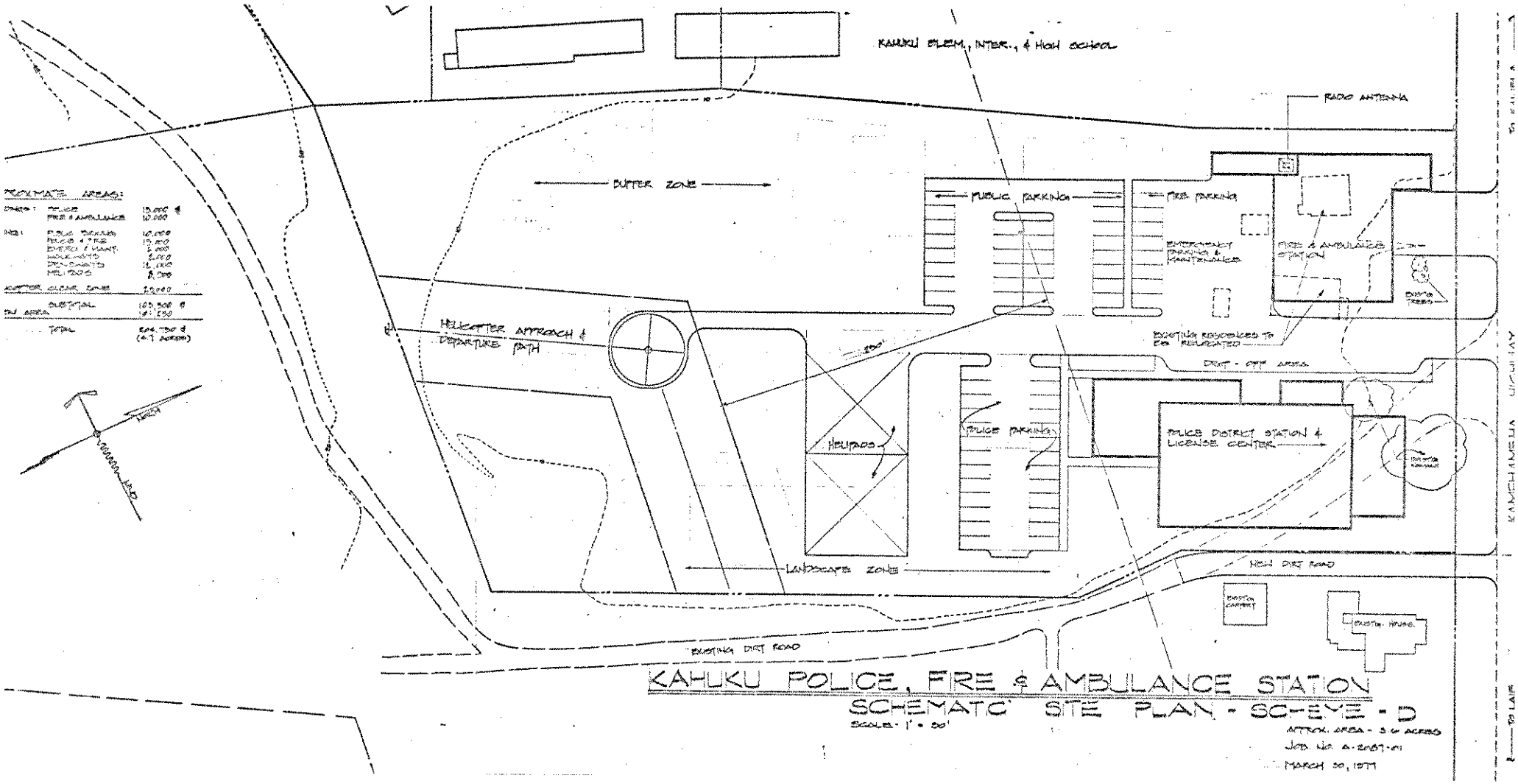
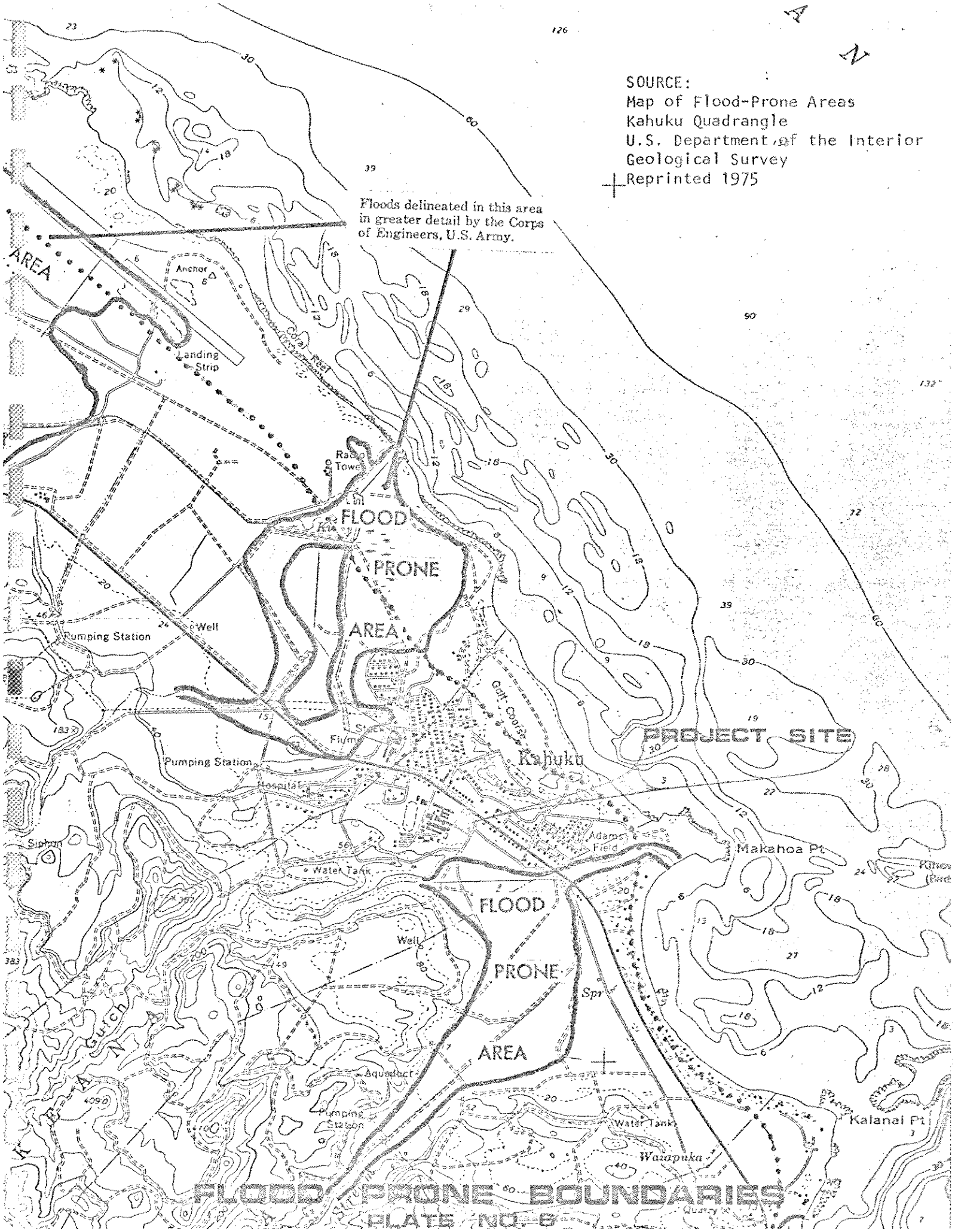

KAHUKU ELEM., INTER., & HIGH SCHOOL
RADIO ANTENNA
BUFFER ZONE
PUBLIC PARKING
FIRE PARKING
EMERGENCY PARKING & MAINTENANCE
FIRE & AMBULANCE STATION
EXISTING TREES
EXISTING RESIDENCES TO BE RELOCATED
DRIFT - OFF AREA
HELICOPTER APPROACH & DEPARTURE PATH
HELIPADS
POLICE PARKING
POLICE DISTRICT STATION & LICENSE CENTER
LANDSCAPE ZONE
NEW DIRT ROAD
EXISTING DIRT ROAD
EXISTING CARPORT
EXISTING HOUSE
KAMEHAMEHA HIGHWAY
TO LAIE
NORTH
KAHUKU POLICE, FIRE & AMBULANCE STATION
SCHEMATIC SITE PLAN - SCHEME - D
SCALE - 1" = 50'
APPROX. AREA - 3.6 ACRES
JOB NO. A-2087-01
MARCH 30, 1977

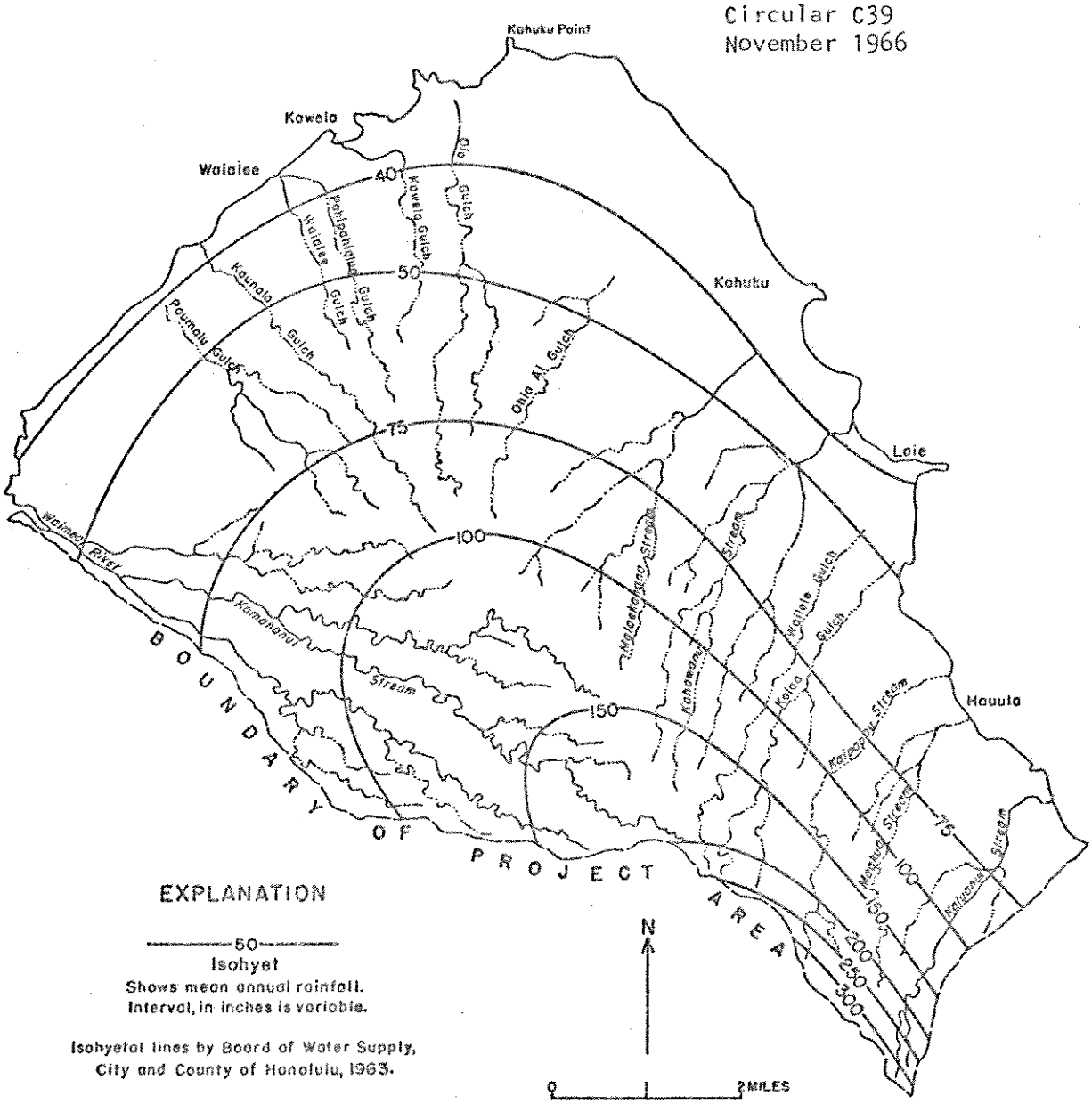
PLATE NO. 5



FLOOD PRONE BOUNDARIES

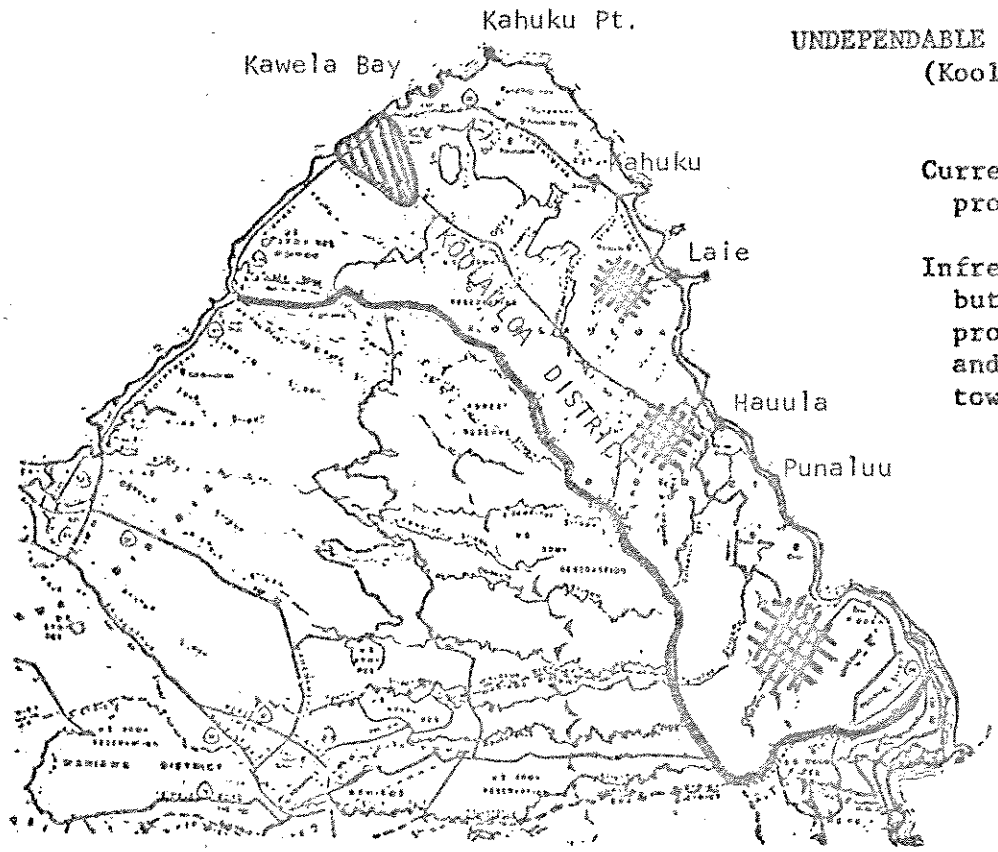
PLATE NO. 8

SOURCE:
The Water Resources of the Kahuku Area
USGS in cooperation with the Department of Land and Natural Resources, Division of Water and Land Development
Circular C39
November 1966



DISTRIBUTION OF MEAN ANNUAL RAINFALL

PLATE NO. 7



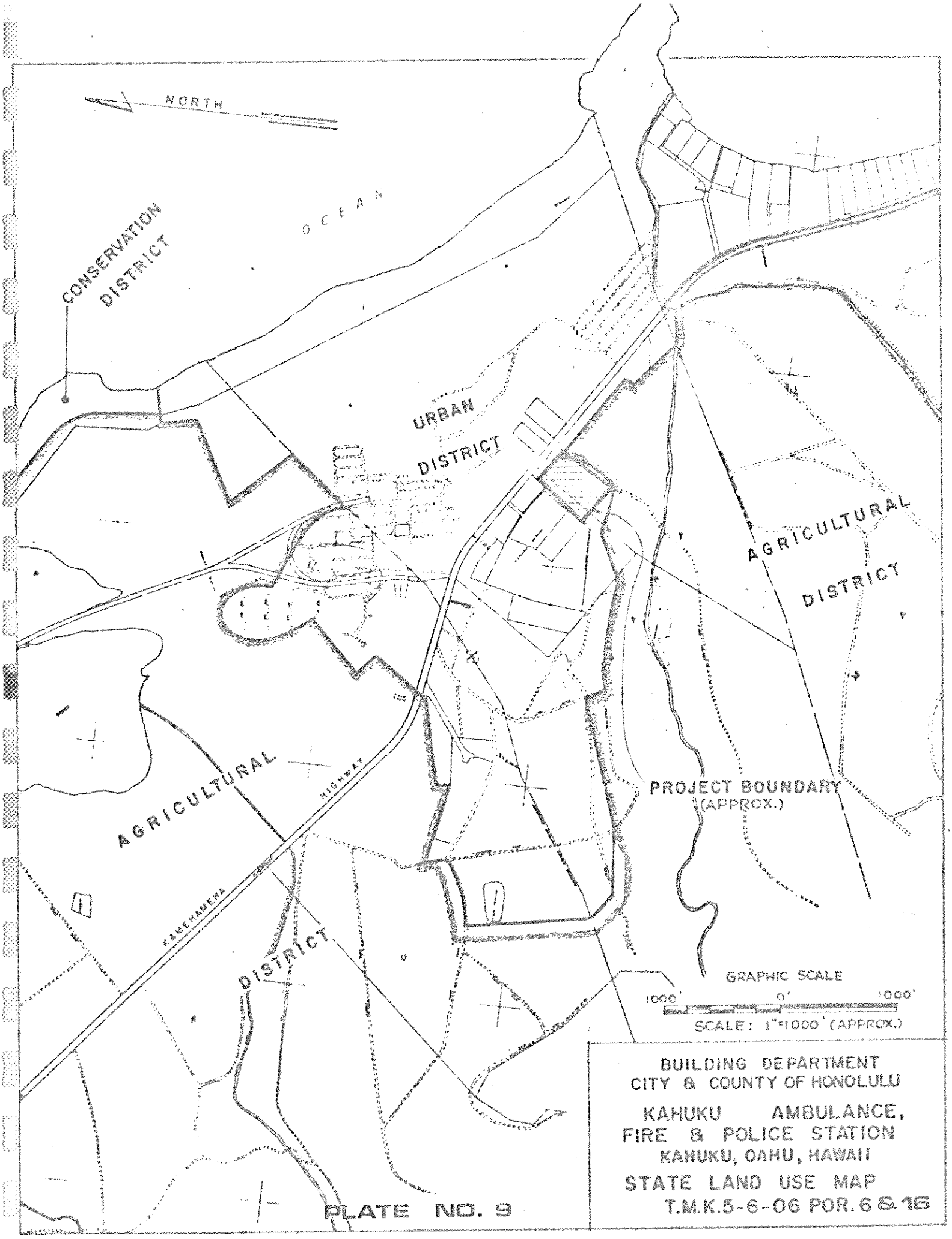
UNDEPENDABLE AREAS FOR RADIO COMMUNICATION
(Koolauloa District Only)

Current and continuous problem areas.

Infrequent problems now, but potentially serious problems as soon as towns and the park spread toward the Koolau Range.

SOURCE:
Police Substation in the Kahuku Area, Preliminary Study
Office of the Budget Director
City and County of Honolulu
Report No. 27
January 1972

PLATE NO. 8


NORTH
OCEAN
CONSERVATION DISTRICT
URBAN DISTRICT
AGRICULTURAL DISTRICT
AGRICULTURAL DISTRICT
KAMEHAMEHA HIGHWAY
PROJECT BOUNDARY (APPROX.)
GRAPHIC SCALE
1000' 0' 1000'
SCALE: 1"=1000' (APPROX.)
BUILDING DEPARTMENT
CITY & COUNTY OF HONOLULU
KAHUKU AMBULANCE, FIRE & POLICE STATION
KAHUKU, OAHU, HAWAII
STATE LAND USE MAP
T.M.K. 5-6-06 POR. 6 & 16
PLATE NO. 9

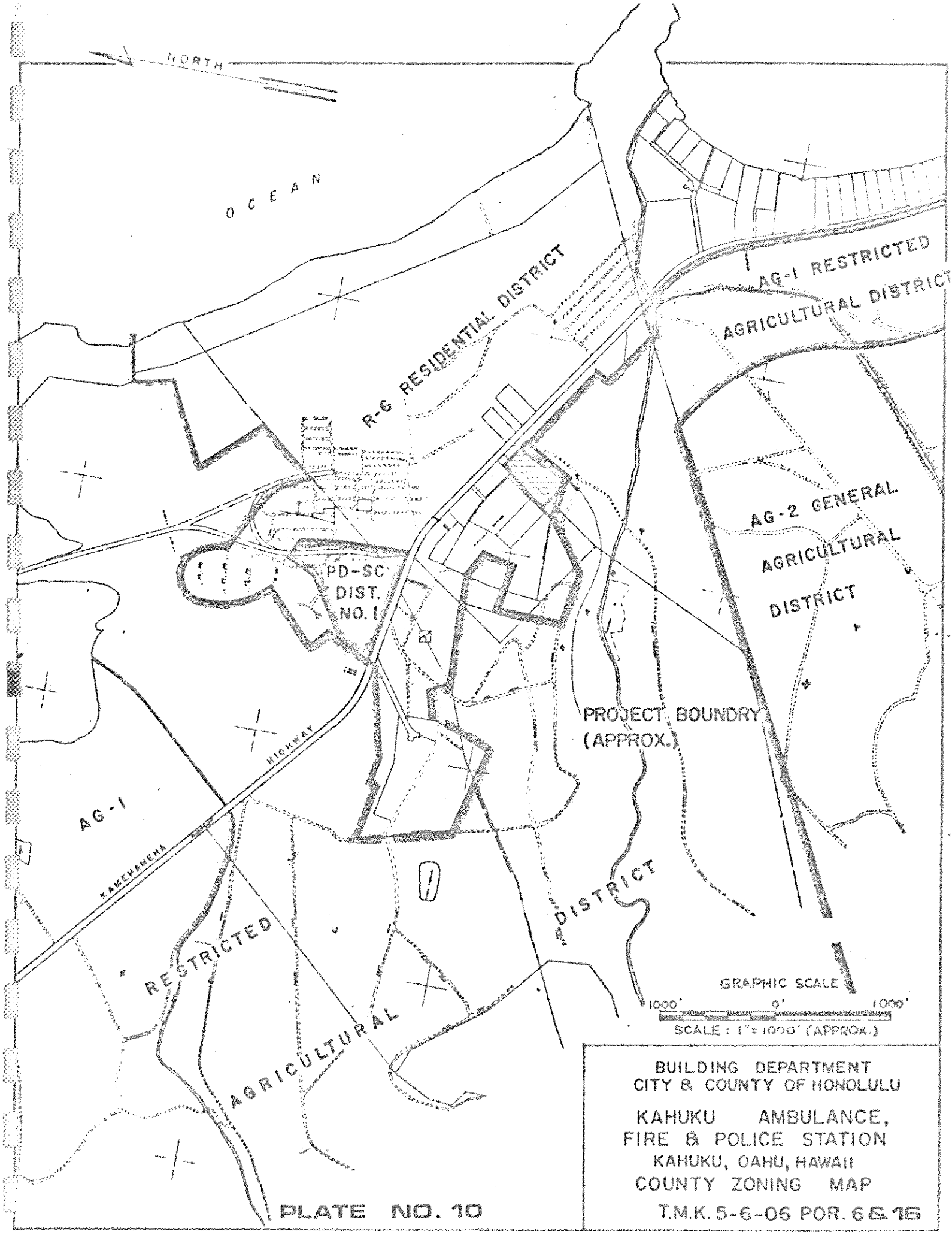
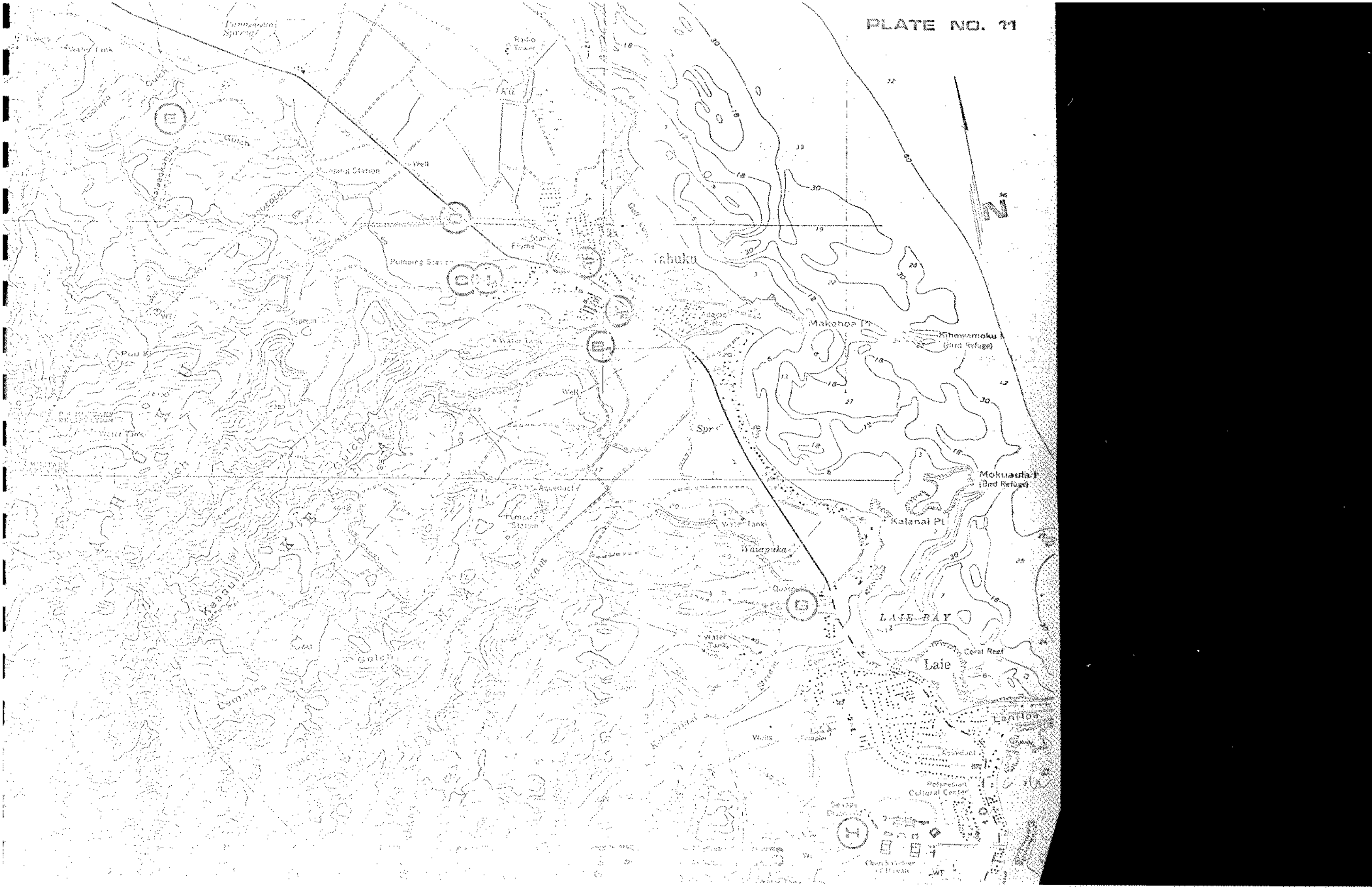

NORTH
OCEAN
R-6 RESIDENTIAL DISTRICT
AG-1 RESTRICTED
AGRICULTURAL DISTRICT
AG-2 GENERAL
AGRICULTURAL
DISTRICT
PD-SC
DIST.
NO. 1
PROJECT BOUNDRY
(APPROX.)
HIGHWAY
KAMEHAMEHA
AG-1
RESTRICTED
AGRICULTURAL
DISTRICT
GRAPHIC SCALE
1000'
0'
1000'
SCALE : 1" = 1000' (APPROX.)
BUILDING DEPARTMENT
CITY & COUNTY OF HONOLULU
KAHUKU AMBULANCE,
FIRE & POLICE STATION
KAHUKU, OAHU, HAWAII
COUNTY ZONING MAP
T.M.K. 5-6-06 POR. 6 & 16
PLATE NO. 10

PLATE NO. 11


N
Kihewamoku
(Bird Refuge)
Mokuauia I
(Bird Refuge)
Makahoa Pt
Kalanai Pt
LAIE BAY
Coral Reef
Laie
Laniloa
Polynesian
Cultural Center
Kahuku
Golf Course
Pumping Station
Well
Water Tank
Waiapuka
Kaunala
Spring
Radio
Tower
Gulch
Keaaulu
Puu K
Spr
Wells
Aqueduct
Pumping
Station

EVALUATION TABLE

Site Location with respect to	Alternate Sites*									
	A	B-1	B-2	C	D	E	F	G	H	I
- Availability of Land	-	+	+	-	+	0	-	0	-	-
- Topography	0	0	+	0	0	-	0	+	0	0
- Radio Reception	0	+	+	0	0	+	0	-	-	0
- Highway Relationship										
- Accessibility & Traffic Generation	+	+	+	+	+	0	0	0	0	+
- Visibility	0	0	+	+	+	+	+	-	-	+
- Acquisition Cost	-	0	-	-	+	+	-	+	-	-
- Site Development Cost	0	0	+	0	+	-	0	0	-	0
- Zoning & Land Use	+	+	+	+	0	-	+	0	-	+
- Compatibility with Adjacent Property	-	0	0	-	+	+	-	+	-	-
- Compatibility with Developers Plan	0	+	+	-	+	+	-	0	-	-
- Disruption of traffic due to										
- Emergency Calls	-	+	+	-	+	+	-	+	-	-
- Change in Work Shift	-	+	+	-	+	+	-	+	-	-
- Disruption to surrounding environs due to										
- High noise level	-	+	-	-	+	+	-	+	-	-
- Incompatibility	-	+	+	-	+	+	-	+	-	-
- Availability of Utilities	+	+	+	+	-	-	+	0	+	+
- Acceptance by Community	0	0	+	0	-	0	0	0	0	0
TOTALS OF GENERAL SITE CRITERIA + good	3	10	13	4	11	9	3	7	1	4
0	6	6	1	4	3	3	5	7	3	4
- bad	7		2	8	2	4	8	2	12	8

*A - Civic Center of Kahuku
B1 - Behind of Kahuku School
B2 - Adjacent to Kahuku School
C - Adjacent to Kahuku Hospital
D - Adjacent to Electrical Transformer Stn.
E - Adjacent to Marconi Wireless Stn.
F - Adjacent to Kahuku Sugar Mill
G - Adjacent to City & County Laie Baseyard
H - Adjacent to Mormon Temple
I - Kahuku Hospital Site

PLATE NO. 12

APPENDIXES

A. NOISE IMPACT STUDY

B. RESPONSES TO NOISE LEVEL TEST AT KAHUKU SCHOOL, OCTOBER 13, 1976

C. AGENCY COMMENTS REGARDING PROPOSED SITE

D. COMMUNITY COMMENTS REGARDING SITE SELECTION

E. HISTORICAL OR ARCHAEOLOGICAL SITES

F. AGENCY COMMENTS ON EIS

1. LETTERS REQUIRING RESPONSE

2. LETTERS REQUIRING NO RESPONSE

A P P E N D I X A

NOISE IMPACT STUDY

NOISE IMPACT STUDY

FOR

KAHUKU POLICE AND FIRE STATION

KAHUKU, OAHU

DECEMBER 13, 1976

Submitted by
IWAO MIYAKE
DESIGN ENGINEERING INC.
747 Amana Street, Suite 217
Honolulu, Hawaii 96814

INTRODUCTION

Public demand for noise abatement and control has increased rapidly in the last decade. Federal, state and county governments have passed noise control regulations to meet this demand.

The State Board of Health has the responsibility of developing and administering noise control regulations for the State of Hawaii. The State Board of Health regulations on "Vehicular Noise Control for Oahu" and "Community Noise Control for Oahu", both exempt noise generated by Police and Fire Department vehicles while acting in response to an emergency.

In view of this, this study, in a sense, is academic. However, it has value because it will point out to the departments concerned how the noise they generate in line of duty, affects the people in the community or hospital. It is hoped that the Departments concerned will take steps to minimize the impact of siren and helicopter noise on the community by using the siren sparingly and only for short duration (one second or less), and whenever possible, avoid flying helicopters over populated areas at elevations less than 600 feet above ground level. If helicopters must be flown at heights less than 600 feet, the lateral distance from the flight path to any noise sensitive area, such as hospitals and schools, should be at least 2,000 feet.

SUMMARY

The purpose of this study was to determine the impact of the noise generated by police and fire vehicles on the Kahuku Hospital and community. The proposed Kahuku police and fire station is located near the center of the residential area. Almost all of the residential area is within 3,200 feet radius from the site. The Kahuku Hospital is approximately 3,200 feet away. The Kahuku Elementary, Intermediate, and High School is adjacent to the proposed site.

SIREN NOISE

To determine the impact of the siren noise, measurements were taken at the existing fire station in Kahuku and in the surrounding community. The noise emitted by the siren was 102 dBA at 75 feet in front of the siren. The noise from the station alarm system was 92 dBA at 75 feet in front of the station. The daytime ambient noise levels were also measured. They ranged between 50 dBA in the residential area and 55 dBA near Kamehameha Highway.

Noise level expected at various distances from the siren was calculated and evaluated. The results are shown in Table (1), and Figures (1) and (2). Calculations show that residents living as far out as 1,100 feet on both sides of the road would definitely be disturbed if the fire truck traveled along the highway with the tested siren turned on. The noise would be loud enough to awaken most people. Residents living less than 500 feet from the highway could be frightened and could experience temporary contraction of peripheral blood vessels and intestinal muscles.

Classroom activities at Kahuku Elementary, Intermediate, and High School would be disrupted. To reduce the impact on the community, the siren should be turned on only once for one or two seconds immediately after turning into Kamehameha Highway. It should not be turned on again until after passing the Hospital.

HELICOPTER NOISE

Fire Department's helicopter was used to determine the impact of helicopter noise on the community. This choice was made because the noise level of the Fire Department helicopter was 3 to 5 dB higher than the noise level of the Police Department helicopter. Fly-by and hover noise levels at known distances above ground level were measured at Honolulu International Airport. Noise levels for the police helicopters were supplied by the Police Department. The noise level

expected at various heights and horizontal distances on the ground was calculated. The results are shown in Tables (2) to (5), and Figures (3) to (8).

The results show that helicopters flying at heights 600 feet or more above ground level will definitely be heard by people directly under the flight path and to distances as far out as 3,000 feet on both sides of the flight line. However, only few mild complaints are expected during the daytime. At night-time, after 10:00 P.M., numerous strong to vigorous complaints can be expected if the number of flights exceeded three per night. For flight elevations below 600 feet, the number and severity of the complaints will increase rapidly from few mild to numerous vigorous complaints. Group and legal actions are expected for night-time flights at elevations below 400 feet if the number of flights per night exceeds three and continues nightly. See Table (2). Helicopter flights which occur not more than once in 24 hours is not expected to cause any complaints even when flown as low as 300 feet above ground level, especially if the ground speed of the helicopter is above 50 mph. Flight at elevations less than 200 feet are not recommended. Flights at any height above ground level should be, at least, 2,000 feet lateral distance away from any hospital, convalescent homes or schools.

During take off and landing operations, the noise level in more than 3/4ths of the community will be raised above the normally acceptable noise range for as long as three minutes, depending on the take off and angle and speed. From lift off to the time the helicopter attains an elevation of 500 feet, all areas within 400 feet on each side of the flight line would be in the clearly unacceptable noise range. Little can be done to alleviate this situation except through careful use of noise barriers and well planned take off angle and speed.

DISCUSSION

The reaction of people to noise depends on many factors, such as:

1) the health of the person,

2) the loudness and the duration of the noise,

3) the time of occurrence of the noise (day, evening, night),

4) the number of occurrences per day,

5) the activity the person happens to be engaged in when the noise intrusion takes place,

6) the tone or pitch of the noise as compared with the tone of the background or ambient noise,

7) the person's evaluation of the noise as necessary or unnecessary.

Most people will complain if the intruding noise is loud enough to interfere with their sleep, rest, recreation, or communication. Some are annoyed if the pitch of the intruding noise is high. This is especially true of people who are sick or nervous. The pitch of most sirens is high.

The reaction of people to noise is subjective. In other words, two or more persons exposed to the same noise may react differently. This simply means that for any noise level we select as a criteria, there will always be some who would say that it is too loud and some who would say the opposite. Researchers on community noise have found that a large majority of people tested considered an average daytime (7:00 A.M. to 10:00 P.M.) noise level of 55 dBA and an average night-time (10:00 P.M. to 7:00 A.M.) noise level of 45 dBA inside a building, acceptable. The above values are therefore commonly used as design goals in community noise abatement programs.

REACTION OF PEOPLE TO INTRUDING NOISE

The reaction of people to intruding noise is related to the loudness, duration, time, and number of occurrences. Researchers have found that occasional intrusion by noise of short duriation is less objectionable than noise of same loudness but of longer duration. Also the degree of tolerance depended on the loudness of the intruding noise above the existing background noise. Complaints were generally few and mild when the intruding noise level was less than 5 dB above the background noise level. Complaints became more numerous and vigorous

as the intruding noise level became greater than 5 dB above the background noise level. Frequent intrusion by noise higher than the background noise level by 10 dB or more usually caused people to take group action or legal action. However, the same noise level did not elicit violent reaction when the intrusion was widely separated, once or twice a day.

INDOOR NOISE LEVEL

Noise inside a building depends on the noise generated within the building, the noise transmitted into the building, and the absorption present inside the building. The noise transmitted into the building depends on the noise attenuation provided by the exterior walls of the building. For a typical light frame building in Hawaii, the attenuation provided by the walls is about 10 dB with the windows open and 15 dB with the windows closed.

From the discussion above, we see that a daytime outdoor noise level of 65 dBA would be acceptable in most homes in Hawaii. A night-time outdoor noise level of 55 dBA would also be acceptable. A steady outdoor noise level of 70 dBA during daytime and 60 dBA during night-time could result in some mild complaints. A steady 75 dBA or louder noise would generally result in numerous and vigorous complaints, and group action or legal action is possible. However, the same noise level lasting less than a minute and separated by four hours or more would cause little or no complaint.

The daytime 55 dBA and the night-time 45 dBA acceptable noise levels are based on the reactions of average people. It is reasonable to assume that sick people are less tolerant to noise. This means a 65 dBA outdoor daytime noise level might not be acceptable to a sick patient in a hospital or convalescent home.

NOISE MEASUREMENT

SIREN NOISE

The noise emitted by the siren on a fire truck stationed at Kahuku Fire

Station was measured at a distance of 75 feet directly in front of the truck. The sound level was 102 dBA.

The noise level of the fire station alarm was also measured at the same distance from the station. The noise level was 92 dBA.

The ambient noise levels at various agricultural and residential areas, including the Hospital were also measured. The ambient noise level varied between 55 dBA, near Kamehameha Highway, to 50 dBA in the residential and hospital areas. The night-time ambient noise level was not measured but measurements taken at other windward locations indicate that a night-time level between 40 and 45 dBA is possible.

HELICOPTER NOISE

The noise generated by the Fire Department helicopter was measured at the Honolulu International Airport. The nearest building was approximately 500 feet away from the microphone locations.

Take-off, landing, fly-by, and hover noise levels were measured and also tape recorded. The take-off and landing angle was approximately 10°. The fly-by noise level was measured with microphones placed 125° and 150° to the right and left sides of the flight path. The fly-by elevations were 100 feet and 250 feet above ground level. The noise level was 86 dBA and 82 dBA respectively for fly-by elevation 100 feet and 250 feet. Hover noise level was measured while the helicopter hovered 100 feet above ground level. Noise readings were taken directly under the helicopter, and at lateral distances 125 feet and 500 feet from the point directly below the helicopter. The noise level directly under the helicopter was 94 dBA. The noise level at 125 feet and 500 feet was 90 dBA and 80 dBA respectively.

Table (4) shows the noise data for police helicopter. The information was supplied by the Honolulu Police Department

The instruments used for the noise measurements are as follows:

B & K Precision Sound Level Meter	Model	2209
B & K Precision Sound Level Meter	Model	2203
B & K Precision Sound Level Meter	Model	2206
B & K Sound Level Calibrator	Model	2230
B & K Graphic Recorder	Model	TC 800
Sony Professional Tape Recorder	Model	2305

CALCULATION

SIREN NOISE

Since the sound distribution pattern of the siren was not available, a distribution pattern of 45° cone was assumed. It was also assumed that the noise level decreased logarithmically with the distance from the siren.

The outdoor and indoor noise levels expected at various distances directly in front and to each side of the siren were calculated. The amount by which the siren noise level exceeded the acceptable daytime and night-time noise levels was also calculated. The results are shown in Table (1) and Figures (1) and (2). The contour lines in Figure (1) are spaced 400 feet apart.

Figure (1) shows the noise contours when the siren is sounded immediately after the fire truck enters Kamehameha Highway.

Figure (2) shows the noise level expected at various distances directly in front of the siren and at equal distances to the right and left sides of the road.

The noise levels shown in Table (1) and Figures (1) and (2) were not corrected for absorptions contributed by ground cover, air, and shielding effect of buildings and terrain. Roadside buildings and cane fields can provide as much as 4 to 6 dB noise reduction for buildings behind them.

HELICOPTER NOISE LEVEL

The outdoor noise level for various fly-by heights and lateral distances from the flight path was calculated, assuming spherical spreading of sound. Similar calculations were carried out for helicopter hovering 100 feet above the

ground. The results are shown in Tables (2) and (3). The noise level expected during take off was also calculated. The results are shown in Table (5).

Data taken from tape recordings of take off, landing, and fly-by noise are shown in Figures (4) through (7). The duration and noise levels to which a person is exposed during take off, landing, or fly-by may be gleaned from them. The take off and landing angle was approximately 10° with respect to the ground.

EVALUATION

The audibility of any sound depends on the masking effect of the background noise. A sound 5 dB or more louder than the background noise can be clearly heard, especially when the pitch is different.

The background noise level in most areas on Oahu is 55 $\pm$ 5 dBA during the daytime and 40 $\pm$ 5 dBA during the night-time.

The daytime background noise level in Kahuku varied between 55 dBA near Kamehameha Highway and 50 dBA near the Hospital. The night-time background level was estimated to be nearly 45 dBA.

The noise level inside a typical passenger car with the radio turned off, windows open, and traveling on paved road at 35 mph, is approximately 65 dBA. With all windows closed, the noise level is about 60 dBA. The windows provide about 6 dBA noise reduction.

This means that a sound from a siren must be at least 70 dBA to be clearly audible inside a passenger car with windows open and traveling approximately 35 mph. When the windows are closed the siren sound level must be at least 71 dBA to be clearly heard inside. The siren sound level must be at least 5 to 10 dB higher than the above for heavy trucks and for passenger cars traveling at higher speeds on rough roads, or for cars with radio turned on.

The Kahuku fire truck siren can be heard clearly by a pedestrian as far as 10,000 feet in front of the truck. A driver of a passenger car, with windows open and traveling at 35 mph, should be able to hear the siren clearly 3,000 feet

in front of the fire truck. With windows closed the driver should be able to hear the siren clearly when the fire truck is 2,500 feet from the car.

Figure (2) shows the siren noise level at various distances directly in front and on each side of the road. The noise levels shown on the left side of the center line of the roadway are the levels directly in front of the siren. The levels shown on the right are for the indicated distances from the roadway. For example, at 50 feet in front of the siren the noise level would be 105 dBA, and 50 feet to the right and left from this point on the roadway, the noise level would be 103 dBA. At 1,000 feet in front of the siren, the noise level would be 79.5 dBA, and 1,000 feet to the right and left of this point, the noise level would be 76.5 dBA.

We see, from Table (1) and Figure (2) that the noise level of the siren, up to 4,800 feet, exceeds the normally acceptable outdoor level of 65 dBA. We can, therefore, expect complaints ranging between mild and violent, from residents less than 4,800 feet from the siren. The daytime complaints from residents more than 2,400 feet from the siren would be few, if any, and mild. The night-time complaints, however, would be more numerous and vigorous.

The complaints from residents less than 2,400 feet from the siren are expected to be numerous and violent because the noise level is high enough to awaken them. It is also loud enough at night to frighten some people. For residents less than 800 feet from the siren, the noise level is large enough to be frightening and cause temporary contraction of peripheral blood vessels and stomach muscles.

If the fire truck siren is sounded immediately after it turns into Kamehameha Highway and headed toward Kawela, the noise level on the school ground would range between 88 dBA near the fire station and 78 dBA near the west boundary. The noise level would definitely disrupt school activities if the classroom windows are open and if the siren is kept on for more than a few seconds. Residents across the highway from the school would also be exposed to the same noise levels. If the siren is kept on for more than a few seconds numerous and vigorous complaints may be expected.

The noise level inside the hospital would be approximately 57 dBA with windows open. This level should not be objectionable even at night.

Residents more than 1,600 feet away from the fire station will find the noise tolerable during daytime. Some mild to strong complaints can be expected at night.

If the siren is kept on while traveling down Kamehameha Highway, the entire community would be exposed to noise ranging from 103 dBA near the road to 78 dBA at the outer fringe of the residential area. Numerous strong to vigorous complaints would be expected. If this occurs too often at night, legal action is possible.

HELICOPTER NOISE

The noise generated by a helicopter in flight depends on the power fed to the engine. The noise reaching the ground depends on the elevation, air absorption, and wind velocity. The noise reaching the ground decreases logarithmically with the height above ground. The change in ground level noise is approximately 1 dB per 100 feet increase in elevation, after the 600 feet level is reached. Noise-wise, little is gained by increasing the elevation from 600 feet to 700 feet above ground level. The change in ground level noise becomes progressively larger as the elevation drops below 600 feet. For example, if the elevation is changed from 600 feet to 100 feet, the noise level will increase by 16 dB. A change from 400 feet to 100 feet elevation will increase the noise level by 12 dB. This 12 dB change would make the noise sound twice as loud. If the elevation is increased from 300 feet to 600 feet, the noise level on the ground will decrease 6 dB. A 4 to 6 dB reduction in ground level noise can change an unacceptable area into an acceptable area.

A person hears a helicopter before and after it passes him. The length of time he is exposed to noise level above the normally acceptable level depends on the speed of the helicopter and its elevation above ground level. For example, the noise level generated by the Fire Department helicopter would be above the normally acceptable level for 73 seconds when it is flying at an elevation of

600 feet at 30 mph. The exposure time will be reduced to 44 seconds at 50 mph. If the flight elevation is reduced to 500 feet or less, the exposure time will be 91 seconds at 30 mph and 55 seconds at 50 mph.

It was pointed out earlier that people tended to accept occasional unacceptable noise if the duration was short.

Objections to helicopter noise can be reduced, to a certain extent, by flying at higher elevation and higher speed. From Tables (2) and (5), we see that helicopter flights 600 feet or more above populated area will generate little or no complaints during the daytime. However, strong complaints are expected at nighttime, especially when more than one flight is made, or when one or more flights are made almost every night at speeds less than 50 mph.

Unless necessary, flights below 400 feet elevation should not be made. The noise level would be unacceptable to all people within 500 feet on each side of the flight line, especially when the ground speed of the helicopter is less than 30 mph.

Flights over noise sensitive areas, such as schools and hospitals, should be avoided. To reduce disruption, helicopters should be flown at least 2,000 feet away from any sensitive area.

TAKE-OFF

Table (5) and Figure (8) show the noise level expected on the ground when the helicopter reaches various elevations during take-off. From lift-off to the time the helicopter reaches the 500 foot elevation, all areas within 400 feet on each side of the flight line would be in the clearly unacceptable noise range. The ground level noise in all areas as far out as 2,000 feet on each side of the flight line would be above the normally acceptable noise range. Figure (8) also shows the horizontal distance the helicopter must travel to attain various elevations. The distances are for a 20° climb. The table below the figure gives the ground level noise expected at each elevation and on both sides of the flight line.

Figure (3) shows the noise contour lines, drawn 200 feet apart, when the helicopter is 50 feet above the ground during take-off.

RECOMMENDATION

SIREN

Other than the use of the siren sparingly for a short time only, or reduction of the sound power level of the siren, little can be done to reduce the impact of siren noise on the community and hospital. To reduce the sound power, the siren can be changed or the existing siren power output can be controlled by turning the siren off before it reaches full speed.

To minimize the impact on the hospital, the siren should be turned on, if necessary, for less than a second or two immediately after the firetruck enters Kamehameha Highway and heads toward Kawela. It should not be turned on again until the firetruck passes the hospital. If this procedure is followed, the patients in the Kahuku Hospital will not be affected. However, if this happens during school hours, the Kahuku Elementary, Intermediate, and High School would be exposed to disruptive noise levels. The disruption can be minimized by constructing noise barrier walls at the boundary between the proposed site and the school. This barrier wall will also serve to reduce the impact of the helicopter take-off noise on the school. The fire and ambulance building, if it can be moved 10 feet closer to the road, would also serve as a noise barrier for the school.

HELICOPTER

Except for take-off and landing noise, helicopter noise can be controlled more readily than siren noise. The ground level noise of a helicopter in flight depends on the distance between the helicopter and the receiver of the noise. The annoyance resulting from helicopter flights, therefore, can be reduced by increasing this distance between the helicopter and the ground or noise critical building area. Unless necessary, helicopters should not be flown over any

community at heights lower than 600 feet above ground level. At this height, the noise at ground level would be above the normally acceptable range but hardly any complaints are expected during the daytime, especially if the ground speed of the helicopter is above 30 mph. However, some strong complaints are expected at night-time, particularly if the number of flights is more than three.

Flights over noise sensitive areas such as hospital and school, should be avoided. The lateral distance between the helicopter and any school or hospital should not be less than 2,000 feet. Under this flight condition, the noise level in the sensitive area would be acceptable both day and night.

The take-off noise will remain in the definitely unacceptable level for residents living within 400 feet on either side of the take-off line, until the helicopter attains an elevation of 500 feet. Strong to vigorous complaints are expected if the number of take-off increases beyond two or three per day.

Classroom activities at the school would also be disrupted for as long as one minute, depending on the take-off speed and angle.

The noise impact will be very large until an elevation of 300 feet is reached. The impact during the early stages of the take-off may be reduced by providing noise barriers.

The fire and ambulance station and the police district station residence can serve as effective noise barriers for the residents to the north of the take-off line during the early stage of take-off if the take-off angle is small (5°).

To alleviate the noise problem at the adjacent school, a noise barrier wall should be built at the boundary between the site and the school.

If allowable, the helicopter should take-off at low angle so that its height above ground will be about 15 feet as it nears the dirt road and climb as rapidly as possible after that (45°).

Submitted by

Iwao Miyake

IWAO MIYAKE
ACOUSTICAL CONSULTANT

TABLE I

SIREN NOISE LEVEL EXPECTED

Distance From House to Siren	Distance From House to Roadway	Outdoor Noise Level in dBA	Indoor Noise Level in dBA	Daytime Excess Over Acceptable	Nighttime Excess Over Acceptable	Will Awaken People	
						Day	Night
50'	35'	105.0	95.0	40.0 dBA	50.0 dBA	All	All
75'	53'	102.0	92.0	37.0 dBA	47.0 dBA	All	All
100'	71'	99.5	89.5	34.5 dBA	44.5 dBA	All	All
200'	141'	93.5	83.5	28.5 dBA	38.5 dBA	Most	All
300'	212'	90.0	80.0	25.0 dBA	35.0 dBA	Most	All
400'	283'	87.5	77.5	22.5 dBA	32.5 dBA	Most	All
500"	354'	85.5	75.5	20.5 dBA	30.5 dBA	Most	All
600'	424'	84.0	74.0	19.0 dBA	29.0 dBA	Some	Most
700'	495'	82.6	72.6	17.6 dBA	27.6 dBA	Some	Most
800'	566'	81.4	71.4	16.4 dBA	26.4 dBA	Some	Most
900'	636'	80.4	70.4	15.4 dBA	25.4 dBA	Some	Most
1,000'	707'	79.5	69.5	14.5 dBA	24.5 dBA	Some	Most
1,200'	849'	77.9	67.9	12.9 dBA	22.9 dBA	Some	Most
1,600'	1,131'	75.4	65.4	10.4 dBA	20.4 dBA	Some	Most
2,000'	1,414'	73.5	63.5	8.5 dBA	18.5 dBA	None	Some
2,400'	1,697'	71.9	61.9	6.9 dBA	16.9 dBA	None	Some
2,800'	1,980'	70.6	60.6	5.6 dBA	15.6 dBA	None	Some
3,200'	2,263'	69.4	59.4	4.4 dBA	14.4 dBA	None	Some
3,600'	2,546'	68.4	58.4	3.4 dBA	13.4 dBA	None	Some
4,000'	2,828'	67.5	57.5	2.5 dBA	12.5 dBA	None	Some
4,400'	3,111'	67.0	57.0	2.0 dBA	12.0 dBA	None	Some
4,800'	3,394'	65.8	55.8	.8 dBA	10.8 dBA	None	Some
5,600'	3,960'	64.5	54.5	.0 dBA	9.5 dBA	None	Few
6,000'	4,243'	63.9	53.9		8.9 dBA		Few
7,000'	4,950'	62.6	52.6		7.6 dBA		None
8,000'	5,657'	61.5	51.5		6.5 dBA		None
9,000'	6,364'	60.4	50.4		5.4 dBA		None
10,000'	7,071'	59.5	49.5		4.5 dBA		None
12,000'	8,485'	58.0	48.0		3.0 dBA		None
14,000'	9,898'	56.6	46.6		1.6 dBA		None
15,000'	10,607'	56.0	46.0		1.0 dBA		None
20,000'	14,142'	53.5	43.5		0.0 dBA		None

HELICOPTER NOISE IN dBA

HONOLULU FIRE DEPARTMENT

BELL 4764A MODEL 5

TABLE (2)

LATERAL DISTANCE IN FEET	FLY-BY ELEVATION & NOISE LEVEL (dBA)									HOVER @	
	100 ft	250 ft	300 ft	400 ft	500 ft	600 ft	700 ft	800 ft	900 ft	100 ft	300 ft
125	86 ◁	82 ◁								90 ◁	
150	86 ◁	82 ◁									
500										80 ◁	
0	91	83	81	79	77	75	74	73	72	94 ◁	84
50	90	83	81	79	77	75	74	73	72	93	84
100	88	82	81	79	77	75	74	73	72	91	84
I 150	86	82	80	78	77	75	74	73	72	89	83
200	84	81	79	78	76	75	74	73	72	87	82
300	81	79	78	77	76	74	73	72	72	84	81
400	79	77	77	76	75	73	73	72	71	82	80
500	77	76	75	75	74	73	72	72	71	80	78
II 600	75	75	74	74	73	72	72	71	70	78	77
700	74	74	73	73	72	71	71	71	70	77	76
800	73	72	72	72	71	71	70	70	69	76	75
III 900	72	72	71	71	71	70	70	69	69	75	74
1,000	71	71	70	70	70	69	69	69	69	74	73
1,200	69	69	69	69	69	68	67	68	68	72	72
1,400	68	68	67	68	68	67	67	67	68	71	70
1,600	67	67	66	67	66	66	66	66	66	70	69
IV 2,000	65	65	64	65	65	64	64	64	64	68	67
3,000	61	61	61	61	61	61	61	61	61	64	64

NOTE: ◁ Symbol for measured noise level. Noise levels without symbol are calculated values assuming spherical distribution. Noise measurements were taken at north end of Honolulu International Airport.
Slight Breeze.
Nearest building approximately 500' away.

TABLE 3

PREDICTED NOISE LEVELS

HOVER HEIGHT ABOVE GROUND VS LATERAL DISTANCE ON GROUND

FIRE DEPARTMENT HELICOPTER

BELL 4764A MODEL 5 #N4737R

HOVER

	HELICOPTER HEIGHT	100'	200'	300'	400'	500'	600'	700'
	LATERAL DISTANCE IN FEET	NOISE LEVEL dBA	NOISE LEVEL dBA	NOISE LEVEL dBA	NOISE LEVEL dBA	NOISE LEVEL dBA	NOISE LEVEL dBA	NOISE LEVEL dBA
	0	94	88	84	82	80	78	77
	50	93	88	84	82	80	78	77
	100	91	87	84	82	80	78	77
	150	89	86	83	81	80	78	77
	200	87	85	82	81	79	78	77
I	250	85	84	82	81	79	77	76
	300	84	83	81	80	79	77	76
	400	82	81	80	79	78	76	76
	500	80	79	78	78	77	76	75
	600	78	78	77	77	76	75	75
	700	77	77	76	76	75	74	74
	800	76	76	75	75	74	74	73
II	900	75	75	74	74	74	73	73
	1,000	74	74	73	73	73	72	72
	1,200	72	72	72	72	72	71	71
	1,400	71	71	70	71	71	70	70
III	1,600	70	70	69	70	69	69	69
	1,800	69	69	68	69	69	68	68
	2,000	68	68	67	68	68	67	67
	2,400	66	66	66	66	66	66	66
	2,800	65	65	65	65	65	64	65
	3,200	64	64	63	64	64	63	64
	3,600	63	63	62	63	63	62	63
IV	4,000	62	62	61	62	62	62	62
	5,000	60	60	60	60	60	60	60
	6,000	58	58	58	58	58	58	58
	7,000	57	57	57	57	57	57	57

TABLE 4

HELICOPTER NOISE

HONOLULU POLICE DEPARTMENT #95 & #98

HUGHES 300C WITH 190 HP LYCOMING ENGINE

LOCATION	LATERAL DISTANCE IN FEET	FLY-BY ELEVATION & NOISE LEVEL (dBA)								HOVER @300 Ft. DAY
		300 Ft.		500 Ft.		700 Ft.		900 Ft.		
		DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	
HONOLULU COMMUNITY COLLEGE	0	75		70		65		60		80
(1) HELICOPTER #95	500	65		65		60		50		75
(2) HELICOPTER #98	0	70	72	65	72	65	65	63	65	80
	500	60	65	55	62	55	60	60	58	75
J C P D BERETANIA	0	75	70	70	65	65	67	62	65	85
(3) HELICOPTER #98	500	70	60	60	55	60	57	50	55	83
HUNAKAI PARK KAHALA	0	70	75	65	70	60	70	60	65	78
(4) HELICOPTER #98	500	60	65	55	65	50	60	50	55	60
WAILUA BRIDGE HAWAII KAI	0	70	75	70	70	65	65		65	75
(5) HELICOPTER #98 (STRONG WIND)	500	60	55	60	60	55	55		50	55
(6) CALCULATED VALUES	0	75	75	71	71	68	68	66	66	
Using 75 dBA @ 300'	500	69	69	68	68	66	66	65	65	
And SPHERICAL DISTRIBUTION	1,000	64		64		63		63		

NOTE: Data (1) through (5) supplied by Honolulu Police Department. For lateral distance (0), measured values shown in squares, agree quite well with calculated values shown in (6). For lateral distance 500', the agreement is poor.

HONOLULU FIRE DEPARTMENT HELICOPTER

BELL 4764A MODEL 5

NOISE LEVEL EXPECTED ON TAKE-OFF

TABLE (5)

NOISE ZONE	LATERAL DISTANCE IN FEET	ELEVATION AND NOISE LEVEL IN dBA									
		25′	50′	100′	200′	300′	400′	500′	600′	700′	800′
	0	103	97	91	85	81	79	77	75	74	73
	100	91	90	88	84	81	79	77	75	74	73
I	200	85	85	84	82	80	78	76	75	74	73
	300	81	81	81	80	78	77	76	74	73	72
	400	79	79	79	78	77	76	75	74	73	72
	500	77	77	77	76	76	75	74	73	72	71
II	600	75	75	75	75	74	74	73	72	72	71
	700	74	74	74	74	73	73	72	72	71	70
	800	73	73	73	73	72	72	71	71	70	70
III	900	72	72	72	72	71	71	71	70	70	69
	1,000	71	71	71	71	71	70	70	70	69	69
	1,200	69	69	69	69	69	69	69	68	68	68
	1,400	68	68	68	68	68	68	68	67	67	67
IV	1,600	67	67	67	67	67	67	66	66	66	66
	1,800	66	66	66	66	66	66	66	65	65	65
	2,000	65	65	65	65	65	65	65	65	64	64

ZONE I - (Above 79 dBA) CLEARLY UNACCEPTABLE.

DAYTIME (7 A.M. - 10 P.M.): Numerous vigorous complaints expected. Group and legal action possible if more than 3 or 4 take-offs and landings per day.

NIGHT-TIME (10 P.M. - 7 A.M.): Same as above.

ZONE II - (74-78 dBA NORMALLY UNACCEPTABLE

DAYTIME (7 A.M. - 10 P.M.): Some strong and vigorous complaints expected if take-off, landing and low overhead flying take place less than 2 hour intervals.

NIGHT-TIME (10 P.M. - 7 A.M.): Numerous strong to vigorous complaints expected. Group and legal action possible if take-off and landing take place more than once per night.

ZONE III - (69-73 dBA) CONDITIONALLY ACCEPTABLE

DAYTIME (7 A.M. - 10 P.M.): Few mild to strong complaints expected if take-off, landing and low overhead fly-by takes place more than once every hour.

NIGHT-TIME (10 P.M. - 7 A.M.): Numerous strong complaints expected if take-off, landing and low overhead fly-by occur more than once per night.

ZONE IV - (Below 68 dBA): NORMALLY ACCEPTABLE

DAYTIME (7 A.M. - 10 P.M.): No complaints expected.

NIGHT-TIME (10 P.M. - 7 A.M.): Few mild complaints possible if 2 or more take-offs and low overhead fly-by occur per night.

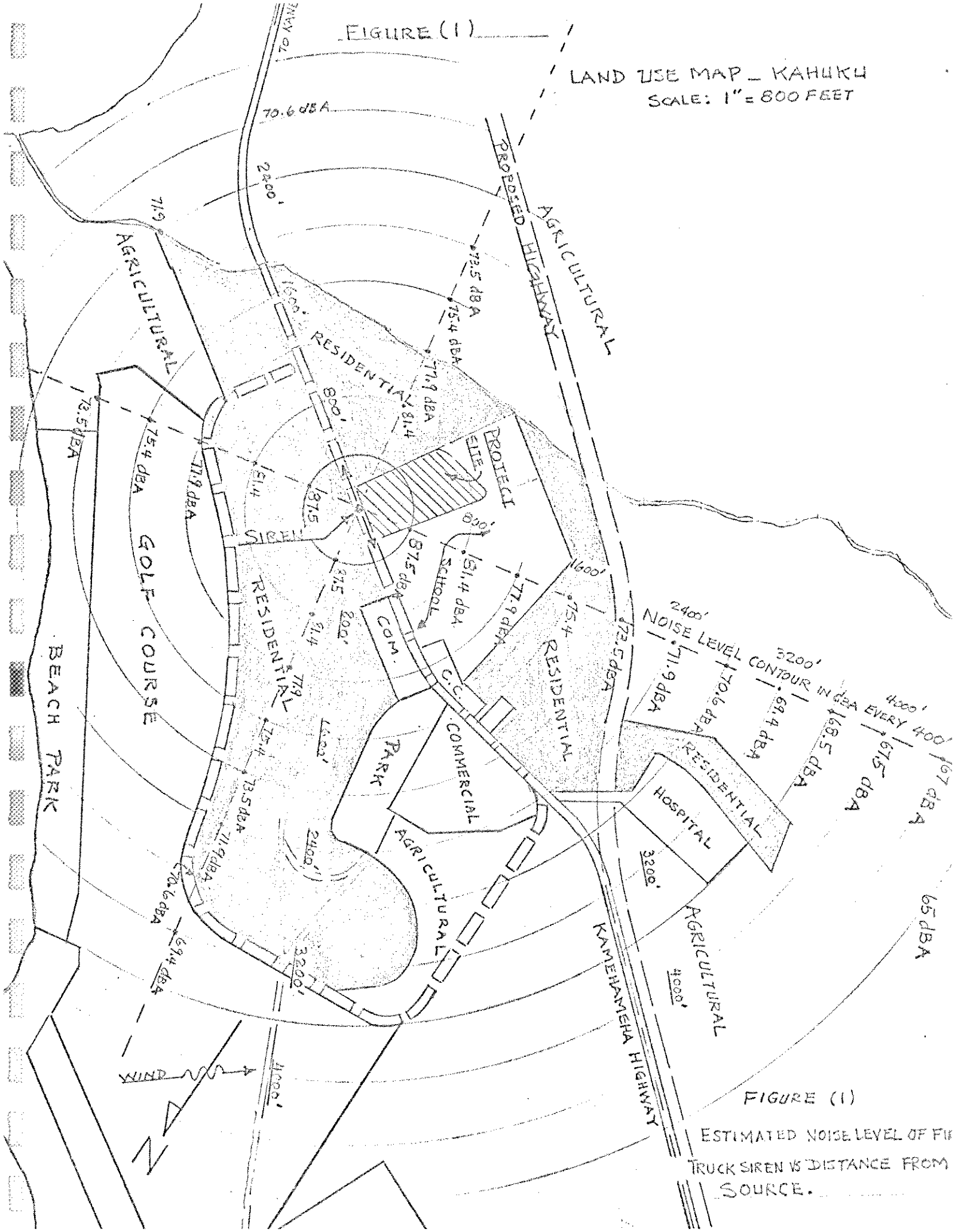


FIGURE (1)

ESTIMATED NOISE LEVEL OF FI
TRUCK SIREN VS DISTANCE FROM
SOURCE.

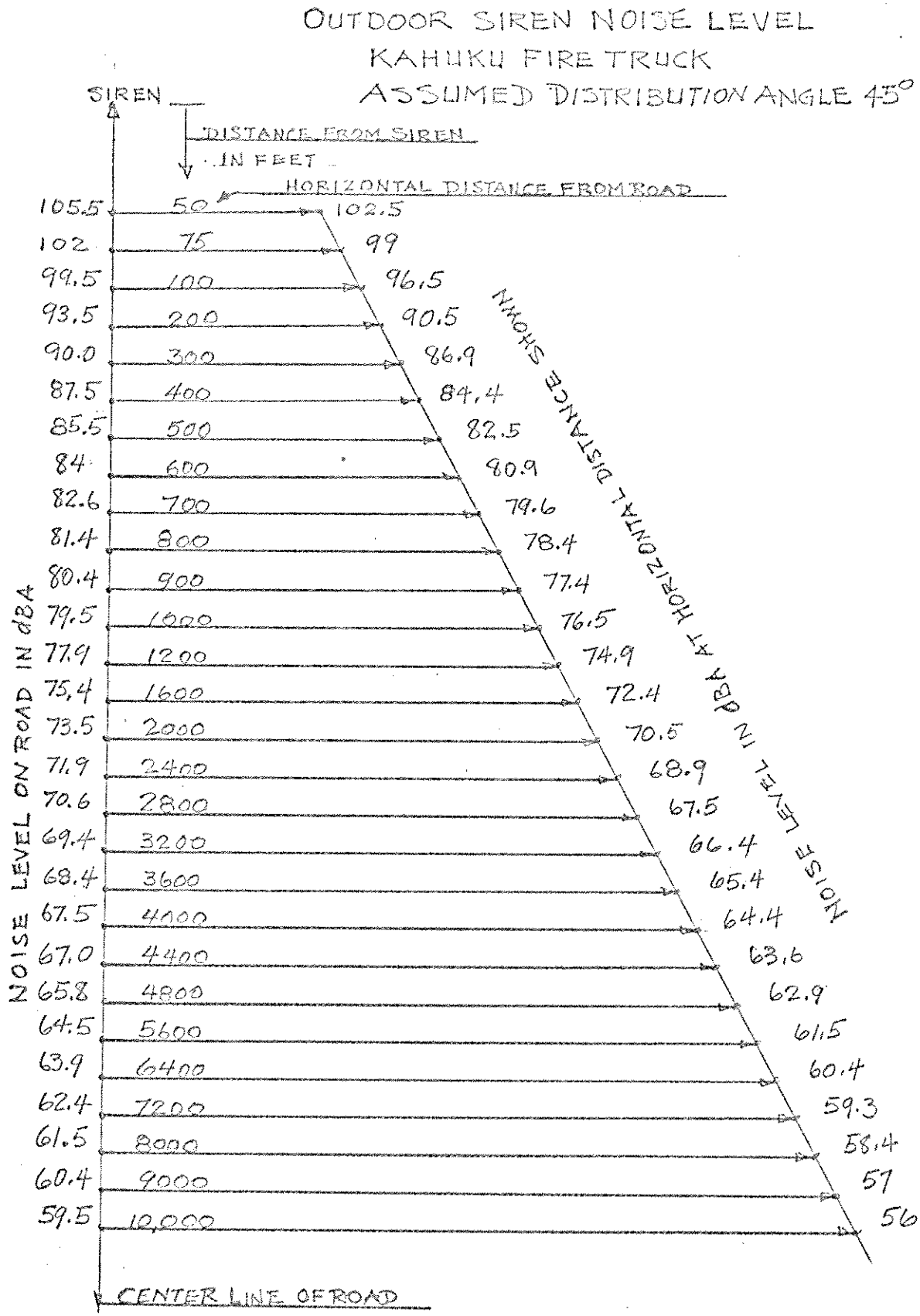

OUTDOOR SIREN NOISE LEVEL
KAHUKU FIRE TRUCK
ASSUMED DISTRIBUTION ANGLE 45°
SIREN
DISTANCE FROM SIREN
IN FEET
HORIZONTAL DISTANCE FROM ROAD
NOISE LEVEL ON ROAD IN dBA
NOISE LEVEL IN dBA AT HORIZONTAL DISTANCE SHOWN
105.5 50 102.5
102 75 99
99.5 100 96.5
93.5 200 90.5
90.0 300 86.9
87.5 400 84.4
85.5 500 82.5
84 600 80.9
82.6 700 79.6
81.4 800 78.4
80.4 900 77.4
79.5 1000 76.5
77.9 1200 74.9
75.4 1600 72.4
73.5 2000 70.5
71.9 2400 68.9
70.6 2800 67.5
69.4 3200 66.4
68.4 3600 65.4
67.5 4000 64.4
67.0 4400 63.6
65.8 4800 62.9
64.5 5600 61.5
63.9 6400 60.4
62.4 7200 59.3
61.5 8000 58.4
60.4 9000 57
59.5 10,000 56
CENTER LINE OF ROAD

FIGURE 2

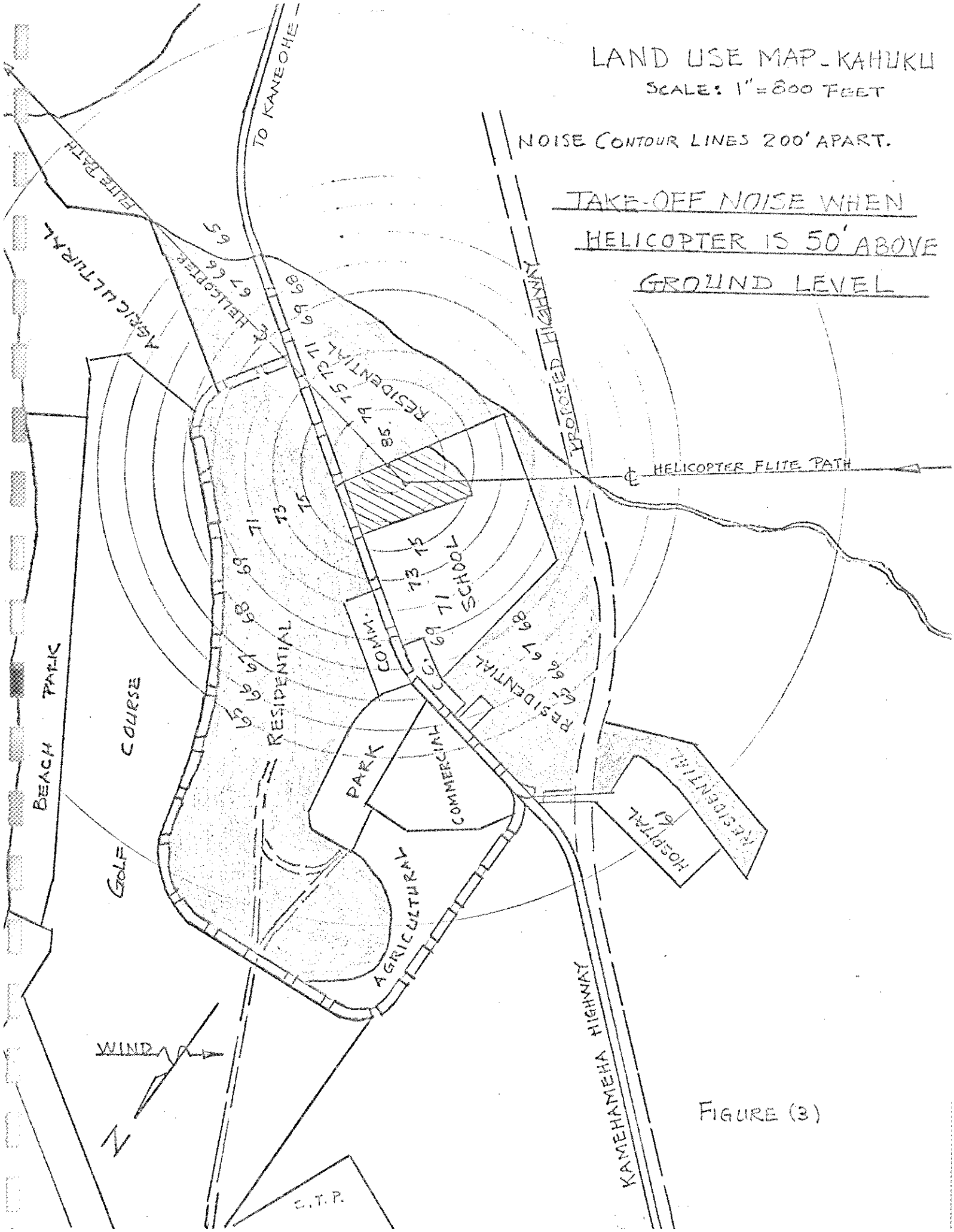

LAND USE MAP - KAHUKU
SCALE: 1" = 800 FEET
NOISE CONTOUR LINES 200' APART.
TAKE-OFF NOISE WHEN HELICOPTER IS 50' ABOVE GROUND LEVEL
TO KANEOHE
ELITE BATH
AGRICULTURAL
HELICOPTER
RESIDENTIAL
PROPOSED HIGHWAY
HELICOPTER FLITE PATH
SCHOOL
COMM.
C.C.
RESIDENTIAL
RESIDENTIAL
PARK
COMMERCIAL
HOSPITAL
RESIDENTIAL
AGRICULTURAL
BEACH PARK
GOLF COURSE
WIND
KAMEHAMEHA HIGHWAY
S.T.P.
65
66
67
68
69
71
73
75
79
85

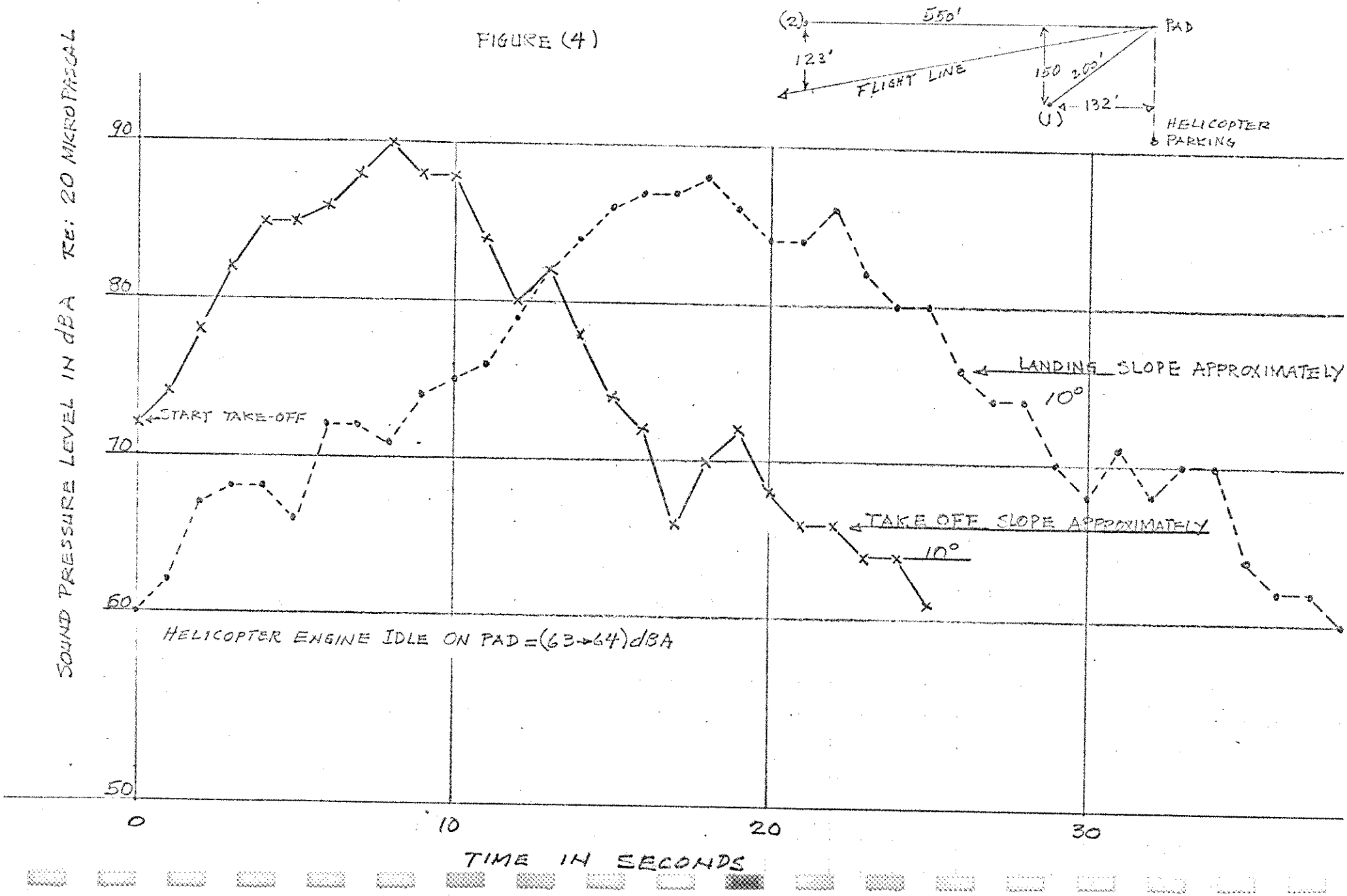
FIGURE (3)

STATION # 1

HELICOPTER TAKE-OFF AND LANDING – HONOLULU FIRE DEPARTMENT

BELL 4764 A MODEL 5 # N4737R

FIGURE (4)



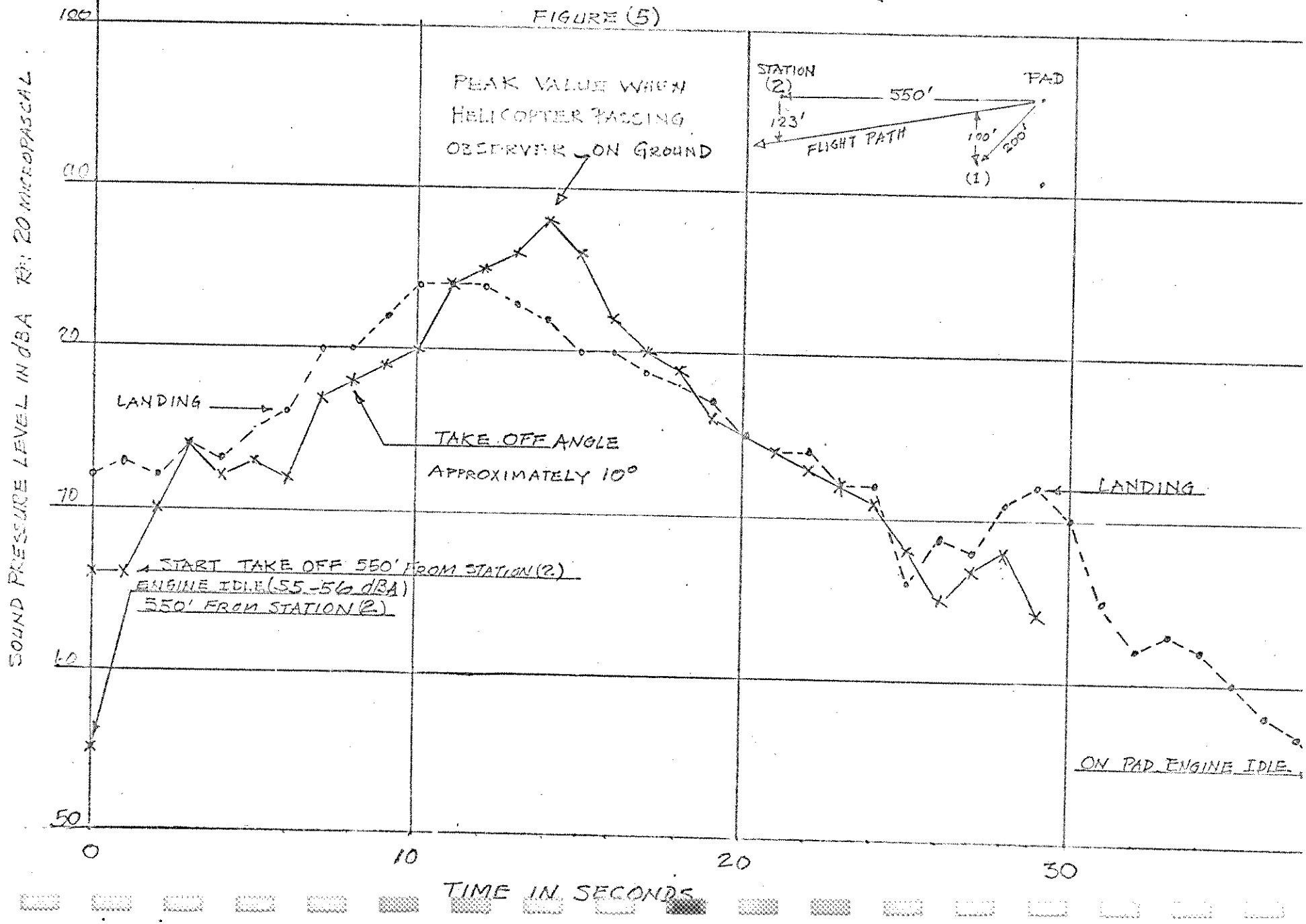
STATION #2

HELICOPTER TAKE-OFF & LANDING NOISE – HONOLULU FIRE DEPARTMENT

WIND VELOCITY – 6 TO 7 MILES/HOUR STEADY.

BELL 4764A MODEL 5 #N4737R

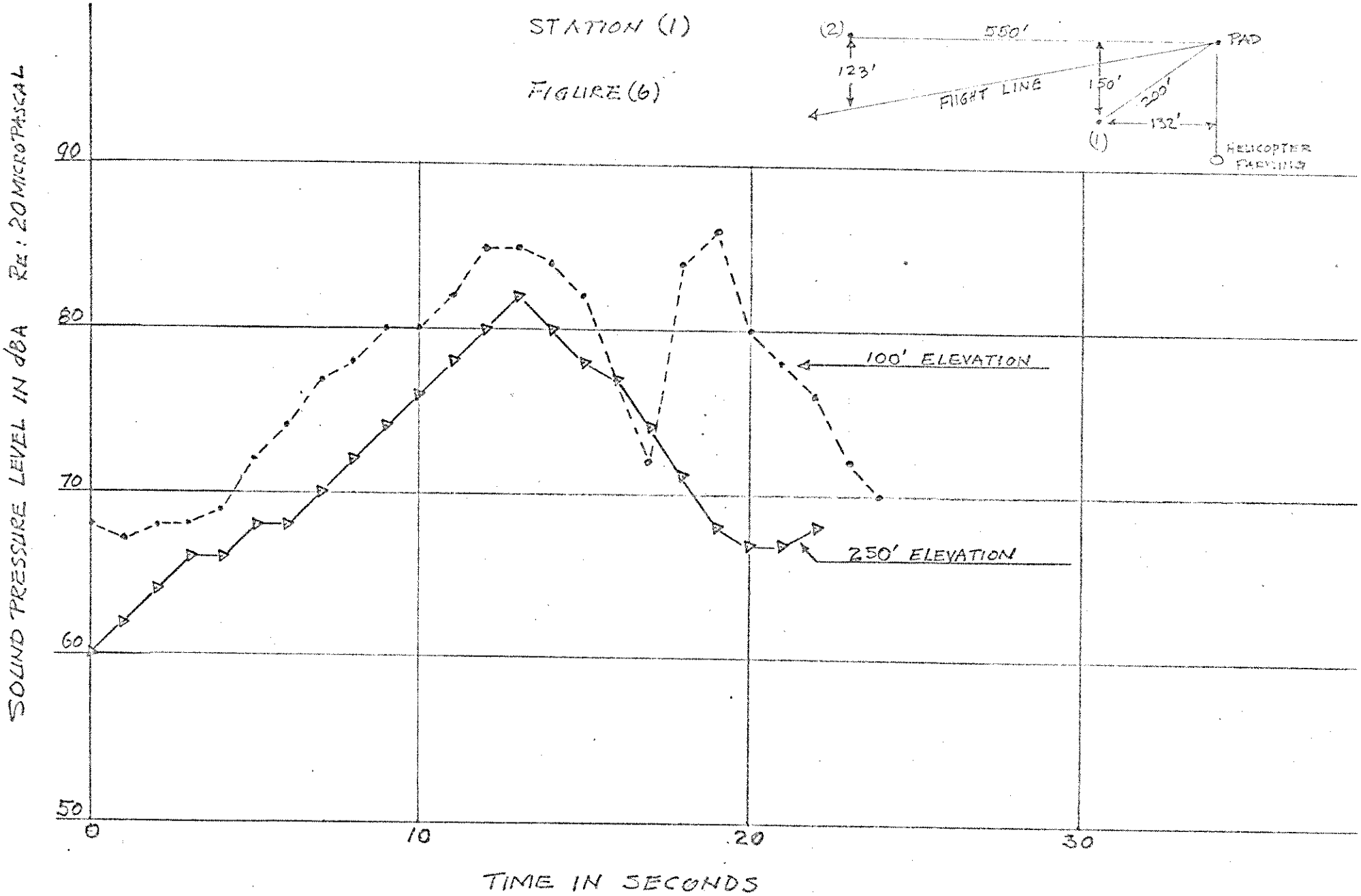
FIGURE (5)



FLYBY NOISE LEVEL OF HELICOPTER
BELL 4764A - MODEL 5 #N4737R

STATION (1)

FIGURE (6)



FLY-BY NOISE LEVEL OF HELICOPTER
BELL 47G4A - MODEL 5 #N4737R
STATION (2)
HEIGHT ABOVE GROUND = 250'

FIGURE (7)

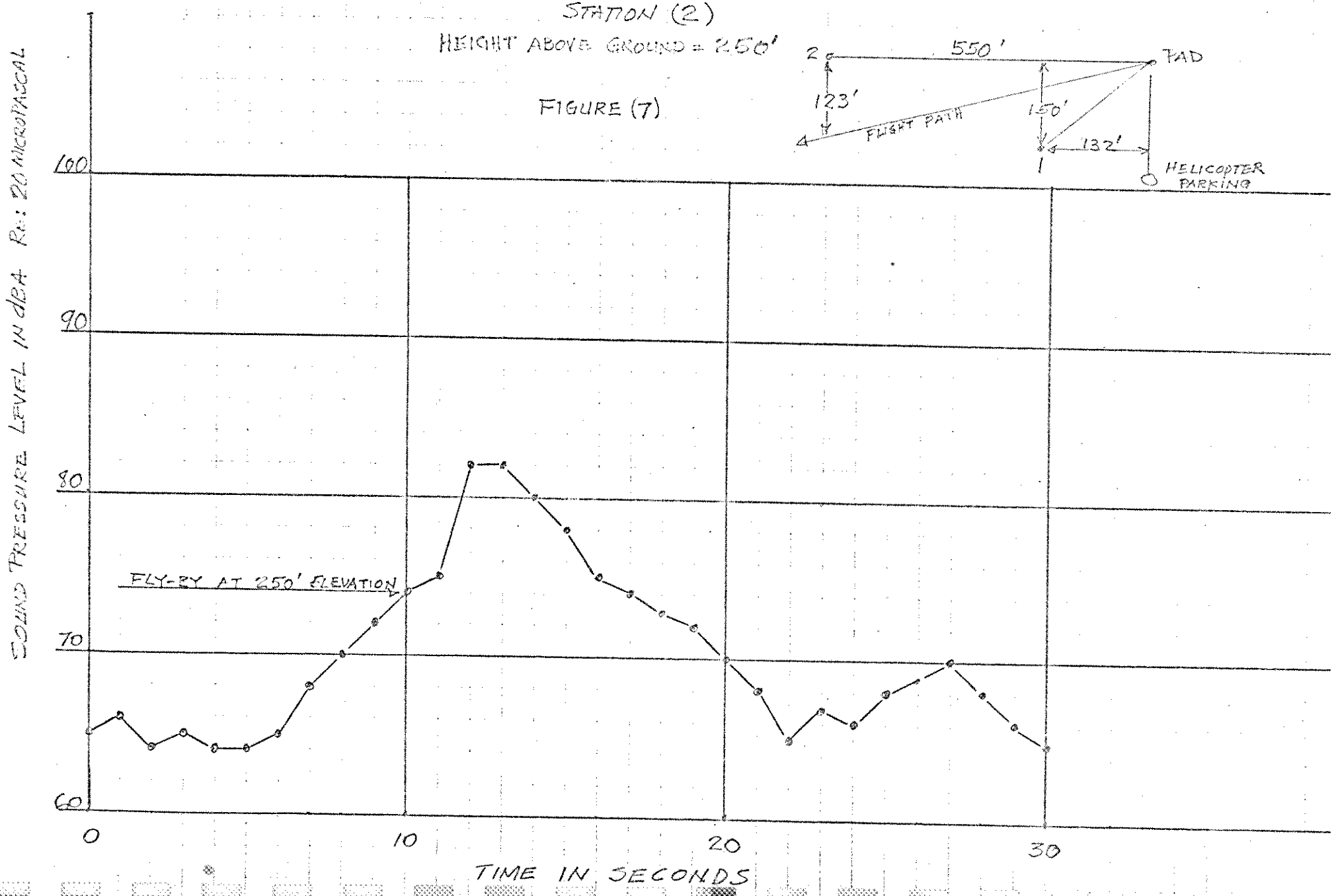
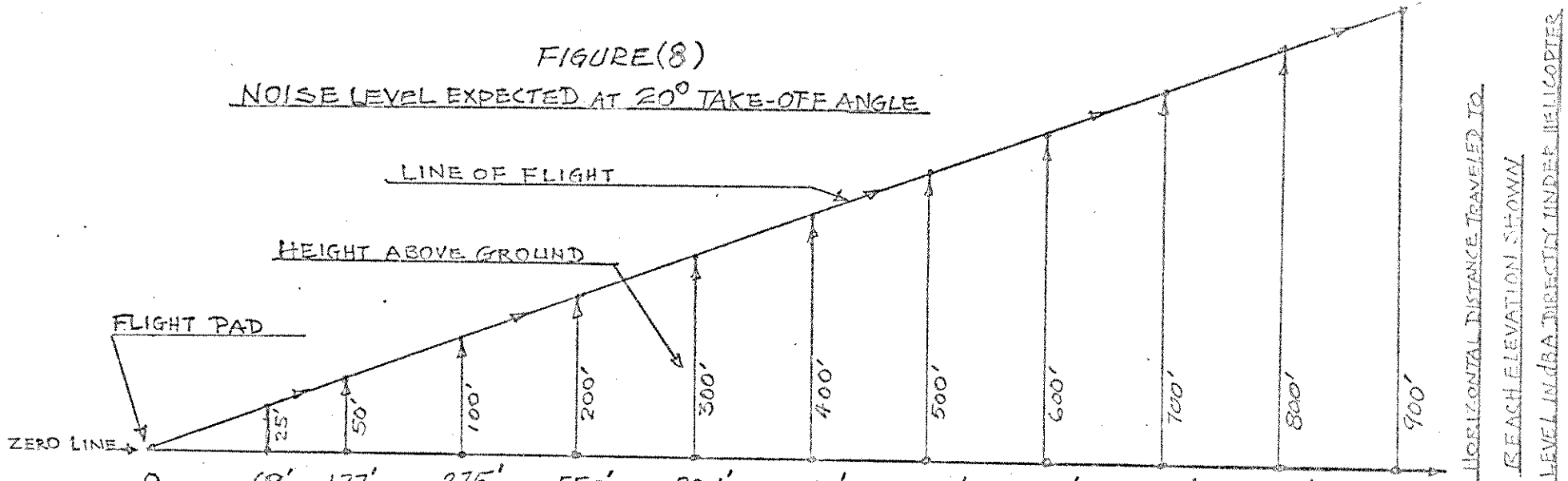


FIGURE (8)

NOISE LEVEL EXPECTED AT 20° TAKE-OFF ANGLE



RADIUS IN FEET FROM ZERO LINE DIRECTLY UNDER HELICOPTER FLIGHT PATH	NOISE LEVEL IN dBA AT RADIUS FROM ZERO LINE										
	0	69'	137'	275'	550'	824'	1099'	1374'	1649'	1923'	2198'	2472'
0	103	97	91	85	81	79	77	75	74	73	72
100'	91	90	88	84	81	79	77	75	74	73	72
200'	85	85	84	82	80	78	76	75	74	73	72
300'	81	81	81	80	78	77	76	74	73	72	71
400'	79	79	79	78	77	76	75	74	73	72	71
500'	77	77	77	76	76	75	74	73	72	71	71
600'	75	75	75	75	74	74	73	72	72	71	70
700'	74	74	74	74	73	73	72	72	71	70	70
800'	73	73	73	73	72	72	71	71	70	70	69
900'	72	72	72	72	71	71	71	70	70	69	69
1000'	71	71	71	71	71	70	70	70	69	69	68
1200'	69	69	69	69	69	69	69	68	68	68	67
1400'	68	68	68	68	68	68	68	67	67	67	67
1600'	67	67	67	67	67	67	66	66	66	66	66
1800'	66	66	66	66	66	66	66	65	65	65	65
2000'	65	65	65	65	65	65	65	65	64	64	64

A P P E N D I X B

RESULTS OF HELICOPTER NOISE LEVEL TEST AT KAHUKU SCHOOL, OCTOBER 13, 1976

- Persons Attending Helicopter Noise Level Test
- State of Hawaii, Department of Education
- City and County of Honolulu, Police Department
- Koolauloa Council
- Kahuku Community Association
- Hauula Community Association
- Koolauloa Neighborhood Board No. 28

PERSONS ATTENDING HELICOPTER NOISE LEVEL TEST

Max Suzuki, Campbell Estate
Jim Kaanaana, NHB #28
Tom Nakayama, Kahuku Housing Corp.
Junior Primacio, Kahuku Community Assn.
Tadeo Kakuni, NB #28 Kahuku Comm. Assn.
Sam Keala, Campbell Estate
John H. Tyler (O.I.C.), H.P.D. Helicopter
Merlin Kaeo, H.P.D. Helicopter
Lawrence Beppu, Hauula Comm. Assn.
M. V. Pacheco, Kahuku, Oahu
H. S. Matsuyama, Kahuku Elementary & High School
Thomas Pickard, Koolauloa Council
Richard Hadama, Kahuku High, Principal
David Mau, Hauula Satellite City Hall
Patrick Plunkett, NB #28
Howard Shima, Building Dept.
Ambrose Fernandez, Building Dept.
Stanford Kuroda, WOA

STATE OF HAWAII

DEPARTMENT OF EDUCATION
KAHUKU HIGH AND ELEMENTARY SCHOOL
P. O. BOX 303
KAHUKU, HAWAII 96731

October 19, 1976

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
OCT 21 5 03 PM '76

REFERRED TO

10/24/76

Mr. Ernest T. Yuasa, Director and Building Superintendent
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Yuasa:

This is in response and our reaction to the noise level test conducted during a dry run of a helicopter landing at the proposed new site of the Kahuku fire/police facility. The teacher survey conducted soon after showed that the responses ranged from "did not hear anything" to "very disturbing". Of the 53 responses, 6 said "very disturbing", 21 said "the noise could be heard but not disturbing", 8 said "very faint", and 18 said "did not hear anything". The frequency in the use of the helicopter would be a factor to be considered.

In the test run, it was observed that the noise level was most intense while hovering just before take-off. Seeing that it is a necessary maneuver prior to take-off, I would recommend that the Parking Pads be relocated towards the northern border of the proposed site. If this is at all feasible, it would help minimize any disruption on the campus.

Sincerely,

Richard Hadama, Principal

cc: Mr. Kengo Takata
Mr. Randall Honda

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

HONOLULU, HAWAII 96814

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU

Nov 3 1 40 PM '76

REFERRED TO

FRANCIS KEALA
CHIEF

EUGENE FLETCHER
DEPUTY CHIEF

FRANK F. FASI
MAYOR

RICHARD K. SHARPLESS
MANAGING DIRECTOR

PLEASE RETURN
TO [illegible]

OUR REFERENCE HF-LNC

YOUR REFERENCE

November 1, 1976

TO: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

FROM: FRANCIS KEALA, CHIEF OF POLICE

SUBJECT: HELICOPTER TEST AT PROPOSED KAHUKU POLICE, FIRE AND AMBULANCE SITE

Thank you for your memorandum of October 27, 1976 and the opportunity to comment on the field memo submitted by Wilson, Okamoto & Associates, Inc. as it relates to the recent helicopter flight test at the proposed site for the Kahuku Police, Fire and Ambulance facility.

We would like to comment on a few minor points which may be of interest to the consultants and the community:

1. Our Hughes helicopter is less noisy than the type utilized by HFD. The higher noise level created when HFD's aircraft utilize the facility should be made known to the community.

2. Our helicopter operations in the area will increase and by construction time the facility will undoubtedly be utilized at least twice weekly for flights.

Our pilots report the location is no problem insofar as safe operation of the aircraft is concerned.

FRANCIS KEALA
Chief of Police

KOOLAULOA COUNCIL
P. O. BOX 387
Hauula, Hi. 96717

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JAN 12 1 49 PM '77
REFERRED TO

December 1976

Building Department
City & County of Honolulu
Honolulu Hale

Attention: Mr. H. Shima
Deputy Director

Gentlemen:

This letter will confirm participation in the test of Helicopter landings on the proposed Fire-Police Station site adjacent to the Kahuku High School.

It is our opinion that the noise levels would-not be excessive to either the high school or the town residents of Kahuku and we therefore support that location for the construction of the Fire-Police Station complex.

Sincerely,

R. F. Walden

R. F. Walden
President

C2087-61

KAHUKU COMMUNITY ASSOCIATION
P. O. BOX 33
KAHUKU, HAWAII 96731

November 2, 1976

Honorable Mayor Frank Fasi
City & County of Honolulu
Office of the Mayor
Honolulu, Hawaii 96813

SUBJECT: Proposed Kahuku Fire & Police Facilities

Dear Mayor Fasi,

On October 13, 1976, members of Kahuku Community Association experienced police and fire helicopter landing on its site designated for a police and fire station. We feel that the noise that these helicopters make has no affect on the environment of Kahuku community and its surroundings. This community, for many years, have experienced military helicopter activities over our area, which became part of our lifestyle and acceptance.

We therefore, accept and concur with police and fire helicopter activities in Kahuku area and look foward in making this project a reality.

Very truly,

John Primacio, Jr.
President

JP:jcm

O-MC
C. Standish

HAUULA COMMUNITY ASSOCIATION
P. O. BOX 387
Hauula, Hi. 96717

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JAN 12 1 49 PM '77

December 1976

REFERRED TO
1-17-77
1/18/77
1-17-77

Building Department
City & County of Honolulu
Honolulu Hale

Attention: Mr. H. Shima
Deputy Director

Gentlemen:

This letter will confirm participation in the test of Helicopter landings on the proposed Fire-Police Station site adjacent to the Kahuku High School.

It is our opinion that the noise levels would-not be excessive to either the high school or the town residents of Kahuku and we therefore support that location for the construction of the Fire-Police Station complex.

Sincerely,

R. F. Walden

R. F. Walden
President

LAULOA NEIGHBORHOOD BOARD
NO. 28
(Kahuku, Laie, Hauula, Punaluu, Kaaawa-Kahana)
C/O HAUULA SATELLITE CITY HALL
54-316 KAM HIGHWAY,
HAUULA, HAWAII 96717

Feb 10, 1977

Mr. Howard Shima
Deputy Director Housing Dept.
City Hall
Honolulu, Hi 96813

Dear Mr. Shima,

The Koolauloa Neighborhood Board has witnessed the landing of the helicopter at the proposed site for the Kahuku fire & police facility next to Kahuku School and we are convinced that it will not disrupt the community and therefore support that site.

Sincerely,
Dorothy Letts
Secretary

A P P E N D I X C

AGENCY COMMENTS REGARDING PROPOSED SITE

- Federal Aviation Administration - Aeronautical Study
- State of Hawaii, Department of Education - Plans for Future Expansion of Kahuku School
- State of Hawaii, Department of Education - Kahuku School Ultimate Site Plan and Second Access to School
- State of Hawaii, Department of Health - Acceptance of Use of Cesspool for Sewage Disposal
- City and County of Honolulu, Police Department
- City and County of Honolulu, Fire Department

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

PACIFIC-ASIA REGION
P. O. BOX 4009
HONOLULU, HAWAII 96813

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JUL 12 4 57 PM '76
REFERRED TO

PLEASE RETURN
FOR FILING

JUL 9 1976

Mr. Ernest T. Yuasa
Director and Building Superintendent
Building Department
City and County of Honolulu
Honolulu Municipal Building
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Yuasa:

Reference is made to your letter PB 76-399 dated May 21, 1976, concerning the proposed establishment of a helipad near Kahuku, Oahu, known as Kahuku Police/Fire Station Heliport.

The two proposed Sites A and B have been evaluated and it appears that Site A would be more desirable from a noise abatement standpoint. It is believed that the prevailing wind in this area is from the NNE direction and thus the 8:1 approach/departure path will be over the existing Kamehameha Highway. Based on the information that proposed Site A is approximately 140 feet from the highway and two feet lower in elevation, airway/highway clearance appears to be inadequate to meet the 15-foot vertical height defined in Part 77 of the Federal Aviation Regulations. Thus, the helipad should be moved further away from the highway to attain this clearance, as well as to clear the existing overhead power lines.

Our coordination with the Federal Highway Administration revealed that while the "proposed highway" shown on the sketch is shown on the Detailed Land Use Map (DLUM) of the City and County of Honolulu, the State Highways Division has no definite plans for improving this particular section of the highway.

This aeronautical study was conducted under Study Nos. 76-APC-13NRA and 76-APC-15NRA for Sites A and B, respectively. Based upon this study, we have no objection to the proposal, except as indicated above, from the standpoint of safe and efficient use of the navigable airspace by aircraft, provided operations are conducted in VFR weather conditions only.

This determination should not be construed to mean FAA approval or disapproval of the physical development involved in the proposal. It is only a determination with respect to the safe and efficient use of airspace by aircraft. In making this determination, the FAA has considered matters such as the effect the proposal would have on existing or contemplated traffic patterns of neighboring airports, the effects it would have on the existing airspace structure and projected programs of the FAA, and the effects that existing or proposed man-made objects and natural objects within the affected area would have on the heliport proposal. This determination in no way pre-empts or waives any ordinance, laws, or regulations of any other governmental body or agency.

Also, this determination does not indicate that the proposed heliport development is environmentally accepted in accordance with Public Laws 91-190, 91-258 and/or 90-495.

This determination expires in eighteen (18) calendar months from the date of this letter unless otherwise extended, revised, terminated or constructed before that date.

Sincerely,

Herman C. Bliss

HERMAN C. BLISS
Chief, Airports Division, APC-600

cc:
State Airports Division

NOTE: Sites A and B here refer to Sites D and B-2, respectively, in the Site Selection Study.

PLEASE RETURN FOR FILING

STATE OF HAWAII

DEPARTMENT OF EDUCATION

P. O. BOX 2360

HONOLULU, HAWAII 96804

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JUL 12 4 53 PM '76

REFERRED TO

7-14-76

OFFICE OF BUSINESS SERVICES

July 8, 1976

7/15/76

7-14-76

Mr. Ernest T. Yuasa
Director and Building Superintendent
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Yuasa:

Subject: Proposed Kahuku Police and Fire Station
TMK: 5-6-06:6 (Portion)

This is in reply to your letter of May 6, 1976, requesting 1) information regarding the Department of Education's plans for future expansion of Kahuku School, and 2) whether the subject parcel can be considered an alternate location for the proposed Kahuku Police and Fire Station.

The ultimate site plan for Kahuku High-Elementary School is pending revision. Present indications are that the 22.8 acres now occupied by the school may not be adequate to locate all required athletic facilities. School planning to date has assumed that the City will develop park facilities immediately adjacent to the school football field (on the opposite site of the school from the subject parcel). Preliminary coordination with the Parks Department indicates they are receptive to joint use and planning; however, a park for Kahuku is not included in their six-year CIP. If joint school-park planning proceeds as expected, we do not anticipate expansion will be necessary into the subject parcel.

If the subject area is used for a police and fire station, there will be both advantages and disadvantages. However, we feel that the presence of fire and police personnel next to the school would deter vandalism and unauthorized persons and should outweigh the inconvenience of intermittent noise from sirens and helicopters.

We have some reservations whether the subject parcel should be planned for a police and fire station pending more definite plans for the future school and park facilities. However, if the City's evaluation determines the subject parcel is the preferred site, we are prepared to adjust our plans accordingly.

Sincerely,

KOICHI H. TOKUSHIGE
Assistant Superintendent
Office of Business Services
KHT:JEE:yk

cc: Windward Oahu District
Dept. of Parks & Recreation
Dept. of Accounting & General Services

PLEASE RETURN FOR FILING

STATE OF HAWAII

DEPARTMENT OF EDUCATION

P. O. BOX 2360

HONOLULU, HAWAII 96804

RECEIVED BUILDING DEPT. C & C OF HONOLULU APR 25 5 13 PM '77

REFERRED TO

OFFICE OF BUSINESS SERVICES

April 19, 1977

4-28-77

Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Kahuku Police and Fire Station

We understand that design of the Kahuku Police and Fire Station is in progress. To assist your review, we are enclosing a copy of the revised ultimate site plan for the adjoining Kahuku High School. Also enclosed is DOT's letter permitting a second access to the school.

We recommend that the design of the Police and Fire Station:

1) Insure that surface runoff from the station does not flow into the lower school site. We are concerned that the station will be raised by means of earth fill and the runoff could aggravate the school's drainage problems.

2) Allow for the future two and three story school buildings that will adjoin the helicopter pad. Design should facilitate a flight path that is removed from the school buildings.

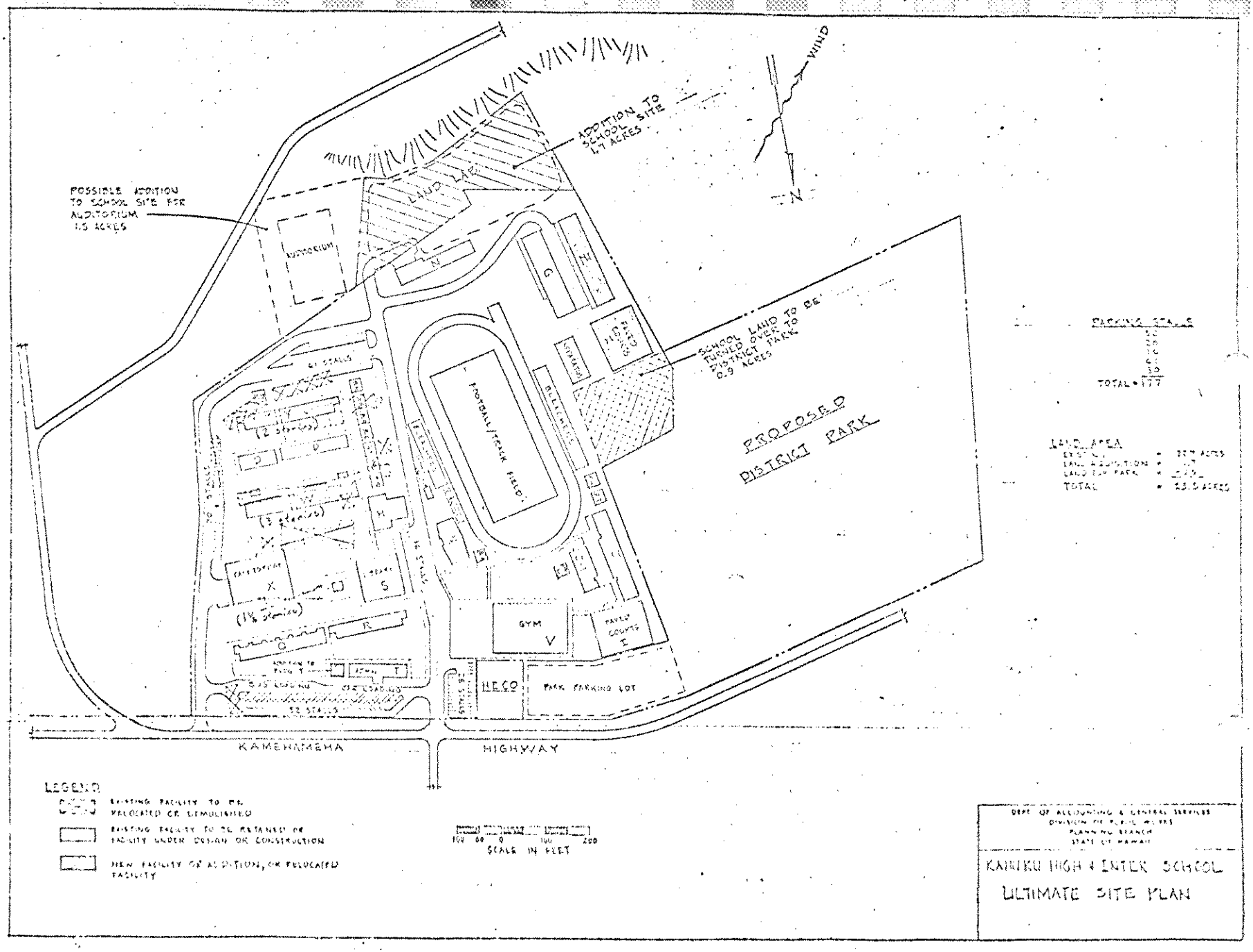
3) Site the road access to the Police and Fire Station to minimize potential conflict with the future second access to the high school.

We suggest that any detailed questions regarding future school construction be referred to Mr. Norman Sahara, Planning Branch, Division of Public Works, Department of Accounting and General Services (Phone: 548-7660).

Sincerely,

KOICHI H. TOKUSHIGE
Assistant Superintendent
Office of Business Services
KHT:JEE:yk
Attachments

cc: Dept. of Accounting & Gen. Servs.
Dept. of Transportation
Windward District



WIND
N
ADDITION TO SCHOOL SITE 1.7 ACRES
POSSIBLE ADDITION TO SCHOOL SITE FOR AUDITORIUM 1.5 ACRES
AUDITORIUM
LAND LAB
SCHOOL LAND TO BE TURNED OVER TO DISTRICT PARK 0.9 ACRES
PROPOSED DISTRICT PARK
FOOTBALL/TRACK FIELD
BLEACHERS
GYM
V
PAVED COURTS
I
HECO
PARK PARKING LOT
61 STALLS
52 STALLS
KAMEHAMEHA
HIGHWAY
PARKING STALLS
TOTAL = 177
LAND AREA
TOTAL = 23.5 ACRES
LEGEND
EXISTING FACILITY TO BE RELOCATED OR DEMOLISHED
EXISTING FACILITY TO BE RETAINED OR FACILITY UNDER DESIGN OR CONSTRUCTION
NEW FACILITY OR ADDITION, OR RELOCATED FACILITY
100 50 0 100 200
SCALE IN FEET
DEPT OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
PLANNING BRANCH
STATE OF HAWAII
KAHUKU HIGH & INTER SCHOOL
ULTIMATE SITE PLAN

GEORGE R. ARIYOSHI
GOVERNOR

RECEIVED
FEB 2 9 40 AM '77
DIV. OF PUBLIC WORKS
DAGS

E. ALVEY WRIGHT
DIRECTOR

DEPUTY DIRECTORS
WALLACE AOKI
RYOKICHI H. GASHIONNA
DOUGLAS S. SAKAMOTO
CHARLES O. SWANSON

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813

IN REPLY REFER TO:
HWY-C
2.35184

January 27, 1977

The Honorable Hideo Murakami
State Comptroller
Department of Accounting
and General Services
P. O. Box 119
Honolulú, Hawaii 96810

Dear Mr. Murakami:

Subject: Kahuku High and Elementary School, Ultimate Site Plan Revision, TMK 5-6-06, Kamehameha Highway, ID No. 0-77-2

This is in reply to your letter of December 28, 1976.

We will permit the second access at point B onto Kamehameha Highway from the school site at the location shown on the enclosed Proposed Ultimate Site Plan.

Please submit two copies of the construction plans for the second access, for our review and approval, when they become available.

Very truly yours,

R Higashionna
for E. ALVEY WRIGHT
Director

Enclosure

DIVISION OF PUBLIC WORKS

TO:	INITIAL	FOR YOUR:
1 State P. W. Engr.	✓	Approval
P. W. Secy.		Sign.
Staff Serv. Dr.		Info.
2 Planning Dr.		File
Proj. Mgmt. Dr.		See me
Design Dr.		Comments.
Insp. Dr.		Invest. &
Qual. Cont. Engr.		Dept.

Norman

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

PLEASE RETURN FOR FILING

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

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

Audrey W. Mertz, M.D., M.P.H.
Deputy Director of Health

Henry N. Thompson, M.A.
Deputy Director of Health

James S. Kumagai, Ph.D., P.E.
Deputy Director of Health

In reply, please refer to:
File: _____

October 6, 1976

Mr. Ernest T. Yuasa
Director and Building Superintendent
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
OCT 12 9 57 AM '76
REFERRED TO

Dear Mr. Yuasa:

Subject: Proposed Kahuku Ambulance, Fire and Police Station
TMK: 5-6-06: 6 (portion)

Reference is made to your letter of September 27, 1976.

In the absence of a public sewage system the use of cesspool for the disposal of domestic sewage is acceptable as an interim method. However, the number of cesspools to be installed is dependent on the total number of occupants or users of the facilities.

For further information, please contact Mr. Tsutomu Kubota at 548-3225.

Very truly yours,

Shinji Soneda, Chief
Environmental Protection and Health
Services Division

PKG:mk

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

HONOLULU, HAWAII 96814

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JAN 27 2 46 PM '77

FRANK F. FASI
MAYOR

RICHARD K. SHARPLESS
MANAGING DIRECTOR

FRANCIS KEALA
CHIEF

EUGENE FLETCHER
DEPUTY CHIEF

REFERRED TO

OUR REFERENCE HF-LNC

YOUR REFERENCE

January 26, 1977

TO: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

FROM: FRANCIS KEALA, CHIEF OF POLICE

SUBJECT: PROPOSED KAHUKU POLICE AND FIRE STATION
TMK: 5-6-06:6 (PORTION)

Thank you for your memorandum of January 20, 1977 and the opportunity to review the noise impact study by Iwao Miyake for the Kahuku Police and Fire Station. The following comments are submitted for consideration in determining the City's position in relation to the site mentioned.

As the study points out, the location of the site which is supported by the community lies within the main residential area of the community. The noise which will be generated by both the police and fire helicopters will obviously cause some disturbance to residents but more specifically to the classroom activity of the schools adjacent to the site even though we, and I am sure the Fire Department, do not foresee extensive use of helicopters on a daily basis. We anticipate that there will be complaints, varying in degree and number on necessary operations with a helicopter in the area.

While the use of sirens by Fire Department vehicles is mentioned in the report, it should also be noted that police vehicles might be required to utilize sirens and this could be another disturbing factor for the immediate area residents or the hospital.

This Department still maintains a position that the first site proposed on Kamehameha Highway would be better suited to our operations and would alleviate some of the noise problems mentioned in the report.

FRANCIS KEALA
Chief of Police

FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

1455 S. Beretania Street, Room 305
Honolulu, Hawaii 96814

FRANK F. FASI
MAYOR

B. K. AIU
CHIEF

PLEASE RETURN FOR FILING

REFERRED TO

November 8, 1976

TO : MR. ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

FROM : BONIFACE K. AIU, FIRE CHIEF

SUBJECT: PROPOSED KAHUKU POLICE, FIRE AND AMBULANCE FACILITIES

In reply to your memorandum of October 27, 1976 regarding the above subject matter, we find no objections to report at this time and are in agreement with the site.

Boniface K. Aiu

BONIFACE K. AIU
Fire Chief

BKA:SWGT:sb

A P P E N D I X D

COMMUNITY COMMENTS REGARDING SITE SELECTION

- Koolauloa Council
- Koolauloa Neighborhood Board, No. 28
- Hauula Community Association

KOOLAULOA COUNCIL
P. O. Box 387
HAUULA, HAWAII 96717

F-1443

Honorable Mayor Frank F. Fasi
Honolulu City Hall
Honolulu, Hawaii

June 25, 1976

Dear Mr. Mayor:

At the regular meeting of the Koolauloa Council held thrusday June 17, 1976 at Kahuku Library, the following community associations were represented:

Kaaawa
Punaluu
Hauula
Laie
Kahuku

After each community associaton representative was poled and each stated his association chose site "B" by the Kahuku School, it was moved, seconded and unanimously passed that :

"The members at Koolauloa Council meeting of June 17th unanimously voted by members present that site "B" by the Kahuku School be selected for the future Fire/Police Station"

Although the secretary of Kahuku Housing Corp. was not present at this meeting, she read their letter recommending site "B" into the record at an earlier meeting.

Also, it was the concensus of the meeting that we should not select an alternate site at this time believing Site "B" the one best site available.

We appreciate the opportunity of additional time afforded us to complete our study.

Sincerely,

Robert F. Walden

Robert F. Walden
President

KOOLAULOA NEIGHBORHOOD BOARD
NO. 28
(Kahuku, Laie, Hauula, Punaluu, Kaaawa-Kahana)
C/O HAUULA SATELLITE CITY HALL
54-316 KAM HIGHWAY
HAUULA, HAWAII 96717

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
JUL 29 1 28 PM '76
REFERRED TO

July 27, 1976

Howard Shima
Deputy Director-Building Dept.
City and County of Honolulu

Dear Mr. Shima:

We of the Koolauloa Neighborhood Board #28 go on record as endorsing the alternate site for the proposed Kahuku Police/Fire Facility, i.e. site "B", adjacent to the Kahuku High School.

Sincerely,

Roland Logan
Chairman

ma

OFFICE
COUNTY

HAUULA COMMUNITY ASSOCIATION
P. O. Box 387
HAUULA, HAWAII 96717

1 GM 12:52

June 25, 1976

1976 JUN 30 PM 2 01
MANAGING
DIRECTOR'S OFFICE
C&C HONOLULU

The Honoarable Mayor
Frank F. Faxi
Honolulu Hale
Honolulu, Hawaii

Dear Mr. Mayor:

At the regular meeting of Hauula Community Association held Monday June 14, 1976 at the Hauula Playground, It was moved, seconded and passed with but one dissenting vote that Hauula Community Association votes for Site "B" by the Kahuku Highschool for the Police/Fire Station.

Sincerely,

Robert F. Walden

Robert F. Walden
President

A P P E N D I X E

HISTORICAL OR ARCHAEOLOGICAL SITES

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

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

January 3, 1977

Mr. Ernest T. Yuasa
Director and
Building Superintendent
City and County of Honolulu
Honolulu Municipal Building

Dear Mr. Yuasa:

Subject: Proposed Kahuku Ambulance, Police and Fire Station

The proposed undertaking will have no effect upon any known historic or archaeological site on or likely to be eligible for inclusion to the Hawaii and/or National Registers of Historic Places. Therefore, this office has no reservations for the project to proceed.

In the event that any unanticipated sites or remains are encountered, please inform the applicant to contact this office immediately.

Sincerely yours,

Jane L. Silverman

Jane L. Silverman
Historic Preservation
Officer
State of Hawaii

A P P E N D I X F

EIS COMMENTS AND RESPONSES

1. Letters Requiring Response
2. Letters Requiring No Response

1. Letters Requiring Response

a. State

Office of Environmental Quality Control

Department of Transportation

Department of Education

Department of Health

b. City and County of Honolulu

Department of General Planning

Department of Public Works

Department of Land Utilization

Department of Transportation Services

c. University of Hawaii

Environmental Center

Comment

GEORGE R. ARIYOSHI
GOVERNOR

PLEASE RETURN FOR FILING

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
OFFICE OF THE GOVERNOR
550 HALEKAUWILA ST.
ROOM 301
HONOLULU, HAWAII 96813

RICHARD E. MARLAND, PH.D.
DIRECTOR

TELEPHONE NO.
548-6915

April 22, 1977

RECEIVED
BUILDING DEPT.
C.& C. OF HONOLULU
APR 25 2 59 PM '77
REFERRED TO

Mr. Robert Way, Director
Department of General Planning
City and County of Honolulu

Dear Mr. Way,

SUBJECT: Environmental Impact Statement for the Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu

This Office has reviewed the subject EIS and offers the following comments for your consideration:

1. It is quite apparent that the most adverse impact of this proposal is that of noise on the surrounding residences and especially the school. There are several proposals for noise mitigation stated in the EIS and the appended noise study. We recommend that those noise mitigation measures which will be implemented be included in the Revised EIS.

2. The section on alternative sites requires expansion to adequately meet the EIS content requirements (section 1:42, g). The alternative sites should be discussed, with attention paid to the resultant environmental impacts associated with the various sites. Are any sites more suitable from the standpoint of noise impact reduction?

3. There is no list of necessary approvals and their status in the EIS. Such a list should be included.

4. If any comments and responses were made during the consultation phase of the EIS preparation they should be in the EIS.

Please find attached fifteen (15) comments received by this Office on the subject EIS. We have not attempted to summarize the comments from other agencies.

Thank you for the opportunity to review this EIS.

Sincerely,

Richard E. Marland
Director

Attachments
C&C Building Dept. w/attach.

Response

FRANK F. FASI
MAYOR

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-501

August 2, 1977

Dr. Richard E. Marland, Director
Office of Environmental Quality Control
Office of the Governor
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Marland:

Subject: Kahuku Ambulance, Fire and Police Station Environmental Impact Statement

We have reviewed your comments and have made the appropriate changes in the text of the revised Environmental Impact Statement.

1. Comment

It is quite apparent that the most adverse impact of this proposal is that of noise on the surrounding residences and especially the school. There are several proposals for noise mitigation stated in the EIS and the appended noise study. We recommend that those noise mitigation measures which will be implemented be included in the revised EIS.

Response

The noise mitigation measures will be implemented in the revised EIS (see Section III - B. 3f. Noise, pp. 32-38).

Comment

List of comments on the EIS for Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu as received by this Office.

Agency	Comment date
State	
*Dept. of Agriculture	3/28/77
*Dept. of Land and Natural Resources	4/14/77
Dept. of Health	4/14/77
*Dept. of Defense	3/22/77
*Dept. of Social Services and Housing	4/15/77
Dept. of Transportation	4/11/77
Federal	
*U.S. Army Corps of Engineers	3/24/77
*U.S. Fish and Wildlife Service	3/29/77
*Soil Conservation Service	4/11/77
*USAF 15th ABW/DEE	4/15/77
*U.S. Navy	3/30/77
*U.S. Army DAFE	3/28/77
City and County	
Dept. of Land Utilization	4/1/77
Dept. of Transportation Services	4/11/77
Dept. of Housing and Community Development	4/11/77

*denotes no comments

Response

Dr. Richard E. Marland
August 2, 1977
Page 2

2. Comment

The section on alternative sites requires expansion to adequately meet the EIS content requirements (Section 1.42, g.). The alternative sites should be discussed, with attention paid to the resultant environmental impacts associated with the various sites. Are any sites more suitable from the standpoint of noise impact reduction?

Response

Please refer to page 40 and Plate Nos. 11 and 12 for the discussion on alternative sites. Other sites appeared to be more suitable from the standpoint of noise impact, but the overwhelming community support for Site B-2 ultimately resulted in its final selection.

3. Comment

There is no list of necessary approvals and their status in the EIS. Such a list should be included.

Response

Please refer to page 43 for the list of necessary approvals.

4. Comment

If any comments and responses were made during the construction phase of the EIS preparation they should be in the EIS.

Response

Comments and responses made during the consultation phase of the EIS will be included in the revised EIS.

Thank you for your comments and interest in our project.

Very truly yours,

Ernest T. Yuasa

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813

E. ALVEY WRIGHT
DIRECTOR

DEPUTY DIRECTORS
WALLACE AOKI
RYOKICHI HIGASHIONNA
DOUGLAS S. SAKAMOTO
CHARLES O. SWANSON

FRANK F. FAR
MAYOR

IN REPLY REFER TO:
STP 8.4193

April 11, 1977

Mr. Donald Bremner
Acting Chairman
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Subject: Environmental Impact Statement for Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu

Thank you very much for giving us the opportunity to review the above-captioned document.

In the following references, we have the following comments:

1. Page 25, 3.b.

   The words "The advance planning branch of" should be eliminated. The Highways Division is now the Land Transportation Facilities Division. Thus, the sentence should begin with "The Land Transportation Facilities Division has no..."

2. Figures 1 and 3 of the noise study.

   The highway realignment shown in the DLUM should be labeled "proposed highway" instead of "proposed freeway."

Sincerely,

E. Alvey Wright

E. ALVEY WRIGHT
Director

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-495

July 26, 1977

Mr. E. Alvey Wright, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Wright:

Subject: Kahuku Ambulance, Fire and Police Station
Environmental Impact Statement

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

Thank you for your comments and interest in our project.

Very truly yours,

Ernest T. Yuasa

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

PLEASE RETURN FOR FILING

STATE OF HAWAII

DEPARTMENT OF EDUCATION

P. O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF BUSINESS SERVICES

April 19, 1977

RECEIVED BUILDING DEPT. C & C OF HONOLULU APR 25 1 58 PM '77 REFERRED TO

RECEIVED APR 25 AM 8:21 DEPT. OF GENERAL PLANNING C & C HONOLULU

Mr. Robert Way, Chief Planning Officer
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Way:

Subject: Environmental Impact Statement (EIS) for Kahuku Ambulance, Fire, and Police Station

The Department of Accounting and General Services has reviewed the subject EIS and submitted the following comments to the Department of Education:

Drainage

"The subject property will be raised by means of earth fill to develop usable area for the proposed facilities and prevent possible flooding of the proposed facilities."

"However, there is no discussion on the means by which the surface runoff from the subject project site will be disposed of. Since portions of the school site are lower in elevation than the areas surrounding the school, it is possible that some of the runoff from the project site may aggravate the school's drainage problems unless appropriate drainage measures are provided."

We concur with the comments and recommend that design of the station provide appropriate drainage measures.

Ultimate Site Plan

"Copies of the attached school's ultimate site plan and the Department of Transportation's letter permitting a second access to the school site should be sent to the Building Department to assist them in their development of the construction plans for the project."

Response

BUILDING DEPARTMENT

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-496

July 26, 1977

Mr. Koichi H. Tokushige, Assistant
Superintendent
Office of Business Services
Department of Education
State of Hawaii
P. O. Box 2360
Honolulu, Hawaii 96804

Dear Mr. Tokushige:

Subject: Kahuku Ambulance, Fire and Police Station Environmental Impact Statement

We have reviewed your comments and made the appropriate change in the text of the revised Environmental Impact Statement.

1. Comment

Drainage:

"The subject property will be raised by means of earth fill to develop usable area for the proposed facilities and prevent possible flooding of the proposed facilities."

"However, there is no discussion on the means by which the surface runoff from the subject project site will be disposed of. Since portions of the school site are lower in elevation than the areas surrounding the school, it is possible that some of the runoff from the project site may aggravate the school's drainage problems unless appropriate drainage measures are provided."

We concur with the comments and recommend that design of the station provide appropriate drainage measures.

Comment

Mr. Robert Way
Page 2
April 19, 1977

The ultimate site plan and DOT's letter will be forwarded to the Building Department by separate correspondence.

A copy of the ultimate site plan is also attached herewith. Please note the design of the police and fire stations should:

1) Allow for future 2-3 story school buildings in the proximity of the helicopter landing pad.

2) Avoid potential traffic conflict and congestion that may be created if the school and the station access roads are in close proximity.

Sincerely,

KOICHI H. TOKUSHIGE
Assistant Superintendent
Office of Business Services
KHT:JEE:yk
Attachments

cc: Dept. of Accounting & General Services
Windward District

Response

Mr. Koichi H. Tokushige
July 26, 1977
Page 2

Response

Please refer to the text on Page 31 for the discussion on drainage. At present it appears that the drainage can be handled locally to adequately dispose of the surface runoff. The specifics of the drainage system will be determined during the design stage of our project, and coordinated with the appropriate agencies.

2. Comment

Ultimate Site Plan:

"Copies of the attached school's ultimate site plan and the Department of Transportation's letter permitting a second access to the school site should be sent to the Building Department to assist them in their development of the construction plans for the project."

The ultimate site plan and DOT's letter will be forwarded to the Building Department by separate correspondence. A copy of the ultimate site plan is also attached herewith. Please note the design of the police and fire stations should:

1. Allow for future 2-3 story school buildings in the proximity of the helicopter landing pad.

2. Avoid potential traffic conflict and congestion that may be created if the school and the station access roads are in close proximity.

Response

In reference to your concern regarding the building height and access, they will be accommodated by our schematic site plan, Scheme A, during the design stage of the project and coordinated with the appropriate agencies to avoid any possible conflicts.

Comment

GEORGE R. ARIYOSHI
GOVERNOR

RECEIVED
FEB 2 9 40 AM '77
DIV. OF PUBLIC WORKS
DACS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813

E. ALVEY WRIGHT
DIRECTOR

DEPUTY DIRECTORS
WALLACE AOKI
RYOICHI HIGASHIONNA
DOUGLAS S. SAKAMOTO
CHARLES O. SWANSON

IN REPLY REFER TO:
HWY-C
2.35184

January 27, 1977

The Honorable Hideo Murakami
State Comptroller
Department of Accounting
and General Services
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Kahuku High and Elementary School,
Ultimate Site Plan Revision, TMK
5-6-06, Kamehameha Highway, ID No. O-77-2

This is in reply to your letter of December 23, 1976.

We will permit the second access at point B onto Kamehameha Highway from the school site at the location shown on the enclosed Proposed Ultimate Site Plan.

Please submit two copies of the construction plans for the second access, for our review and approval, when they become available.

Very truly yours,

R Higashionna
for E. ALVEY WRIGHT
Director

Enclosure

DIVISION OF PUBLIC WORKS
TO: INITIAL FOR YOUR:
State P. W. Engr. — Approval
P. W. Engr. — Sign.
Staff Serv. Br. — Info.
Planning Br. — File
Proj. Mgt. Br. — See me
Design Br. — Comments
Insp. Br. — Invest. &
Const. Cont. Engr. — Dept.

Response

Mr. Koichi H. Tokushige
July 26, 1977
Page 2

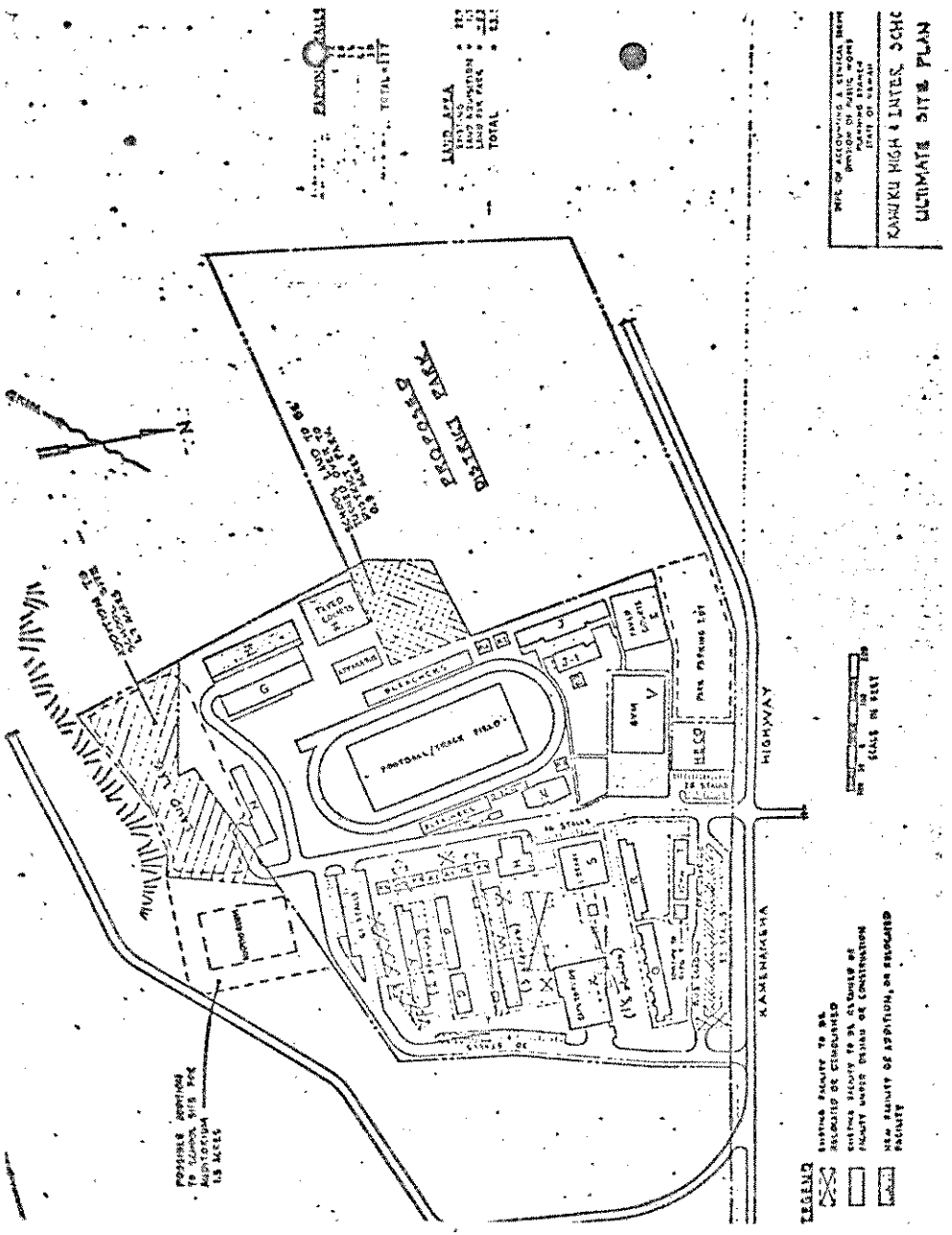
Thank you for your comments and interest in our project.

Very truly yours,

Ernest T. Yuasa
ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment


PROPOSED DISTRICT PARK
FOOTBALL/TRACK FIELD
HIGHWAY
KAMEHAMEHA
LAND AREA
TOTAL
LEGEND
KAHUKU HIGH & INTER. SCHO
ULTIMATE SITE PLAN

Comment

PLEASE RETURN FOR FILING

STATE OF HAWAII

DEPARTMENT OF EDUCATION

P. O. BOX 3860

HONOLULU, HAWAII 96804

RECEIVED BUILDING DEPT. C & C OF HONOLULU APR 25 5 13 PM '77

REFERRED TO

OFFICE OF BUSINESS SERVICES

April 19, 1977

4-28-77

Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Kahuku Police and Fire Station

We understand that design of the Kahuku Police and Fire Station is in progress. To assist your review, we are enclosing a copy of the revised ultimate site plan for the adjoining Kahuku High School. Also enclosed is DOT's letter permitting a second access to the school.

We recommend that the design of the Police and Fire Station:

1) Insure that surface runoff from the station does not flow into the lower school site. We are concerned that the station will be raised by means of earth fill and the runoff could aggravate the school's drainage problems.

2) Allow for the future two and three story school buildings that will adjoin the helicopter pad. Design should facilitate a flight path that is removed from the school buildings.

3) Site the road access to the Police and Fire Station to minimize potential conflict with the future second access to the high school.

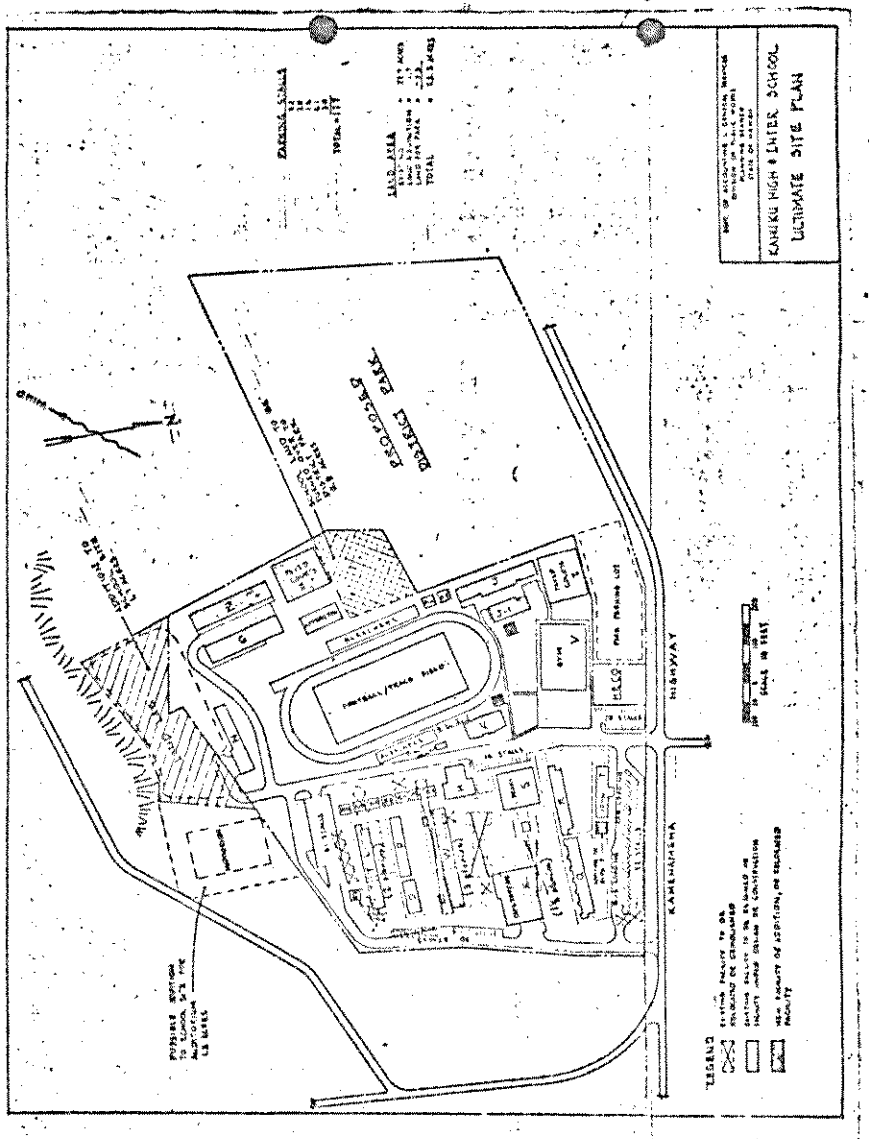
We suggest that any detailed questions regarding future school construction be referred to Mr. Norman Sahara, Planning Branch, Division of Public Works, Department of Accounting and General Services (Phone: 548-7660).

Sincerely,

KOICHI H. TOKUSHIGE
Assistant Superintendent
Office of Business Services
KHT:JEE:yk
Attachments

cc: Dept. of Accounting & Gen. Servs.
Dept. of Transportation
Windward District

Comment


KAHUKU HIGH & INTER SCHOOL
ULTIMATE SITE PLAN
PROPOSED DISTRICT PARK
HIGHWAY
KAMEHAMEHA
LEGEND

Comment

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

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

April 14, 1977

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

Audrey W. Mertz, M.D., M.P.H.
Deputy Director of Health

Henry N. Thompson, M.A.
Deputy Director of Health

James S. Kumagai, Ph.D., P.E.
Deputy Director of Health

In reply, please refer to:
File: EPHS - SS

MEMORANDUM

To: Dr. Richard Marland, Director
Office of Environmental Quality Control

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement for the Proposed Kahuku Ambulance, Fire and Police Station

Thank you for allowing us to review and comment on the subject project.

This Department has reservations on the proposed construction and operations of the Kahuku Ambulance Fire and Police Station at the site indicated by the EIS due to the adverse impact of noise created by the various activities to the residents and school classrooms.

The ten alternative sites mentioned on page 37 should be indicated in the EIS together with a discussion on the relative advantages and disadvantages of each site.

JAMES S. KUMAGAI, Ph.D.

cc: Building Department, C&C of Honolulu
Dept. of General Planning, C&C of Honolulu

Response

FRANK F. FASI
MAYOR

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-499

July 26, 1977

TO: DR. JAMES S. KUMAGAI
HEALTH DEPARTMENT, STATE OF HAWAII

FROM: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

1. Comment

This Department has reservations on the proposed construction and operations of the Kahuku Ambulance, Fire and Police Station at the site indicated by the EIS due to the adverse impact of noise created by the various activities to the residents and school classrooms.

Response

Please refer to Appendix "B" in which are included comments from the various community groups and the Department of Education concerning the noise level test. Although there will be a noise impact, the overwhelming support of the particular site by the various community groups and the Department of Education, led to its selection.

Response

2. Comment

The ten alternative sites mentioned on Page 34 should be indicated in the EIS together with a discussion on the relative advantages and disadvantages of each site.

Response.

A map of the ten alternative sites (see Alternate Site Locations - Plate No. 11) and a matrix (see Evaluation Table - Plate No. 12) summarizing the relative advantages and disadvantages of each will be included in the revised EIS.

Thank you for your comments and interest in our project.

Ernest T. Yuasa
ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ROBERT R. WAY
CHIEF PLANNING OFFICER

APR 25 3 00 PM '77
REFERRED TO

DGP3/77-673(CT)

PLEASE RETURN FOR FILING

April 22, 1977

Mr. Ernest T. Yuasa
Director and Building Superintendent
Building Department
City and County of Honolulu
Honolulu, Hawaii

Dear Mr. Yuasa:

Kahuku Ambulance, Fire and Police Station Complex
Environmental Impact Statement, February 1977
Received for Review and Comments, March 22, 1977

We have the following comments:

1. Natural Environment

This section does not provide a full description of the features which relate to the development problems of the area. For instance, the EIS indicates: "The area between Kawela Bay and Hauula is a generally flat coastal plain seaward of Kamehameha Highway . . . The coastal plain borders most of the area between the shore and the base of steep wavecut cliffs." (P. 17.)

The area between the shore and the base of the cliffs is the coastal plain. An important factor related to this description is that the coastal plain is narrow, covering about one-half mile of the 3 to 4 mile average width of the district except at Laie and Kahuku. This has resulted in strip development along the 13 or 14 miles of shoreline and radio communication problems with police cars when they are deeper in the valleys. The high rainfall in the mountains and the narrow coastal plains also result in flooding problems. A clear and concise description of the area is available in the Board of Water Supply "Oahu Water Plan," published in 1963 (pp. 24 et seq.), though the service area for Board of Water Supply does not coincide entirely with yours.

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-502

August 2, 1977

TO: MR. ROBERT R. WAY, CHIEF PLANNING OFFICER
DEPARTMENT OF GENERAL PLANNING

FROM: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

1. Comment

Natural Environment: This section does not provide a full description of the features which relate to the development problems of the area. For instance, the EIS indicates: "The area between Kawela Bay and Hauula is a generally flat coastal plain seaward of Kamehameha Highway . . . The coastal plain borders most of the area between the shore and the base of steep wavecut cliffs." (p. 17.)

The area between the shore and the base of the cliffs is the coastal plain. An important factor related to this description is that the coastal plain is narrow, covering about one-half mile of the 3 to 4 mile average width of the district except at Laie and Kahuku. This has resulted in strip development along the 13 or 14 miles of shoreline and radio communication problems with police cars when they are deeper in the valleys. The high rainfall in the mountains

Comment

It would help if the related maps were placed within the body of the EIS rather than at the end, so that maps and text could be related.

2. Population and Housing

In a section entitled "c. Demography" (p. 23), there is one sentence indicating a 1970 population of 10,562 and a 1975 population of 11,258; and another sentence indicating a 1970 housing count of 2,886 units and a 1975 estimate of 3,581 units. The source is not given.

Elsewhere (p. 4), it is indicated: "The State Department of Planning and Economic Development estimates 14,890 presently (1975) in the Kahaluu-Kahuku area. Its year 2000 projection for the area, based on the 'Series E-2' population projections, is 20,000 people."

The 1975 population figures are inconsistent. Furthermore, the Department of Planning and Economic Development does not provide projections for small areas, i.e., smaller than counties. The reference for the 20,000 projection seems to be the City's revised General Plan adopted under Resolution 238. There is no indication of the distribution of the 1975 population and housing, or whether this was a factor in the site selection.

3. Bird Refuge Areas

The EIS indicates: "Ponds which are or will become bird refuges are Kii, Puu, and Punahoolapa." (P. 24.)

Our USGS maps show a Punamano marsh and a Punamano Spring; we cannot locate any Puu pond.

4. Water

The EIS indicates: "The City is in the process of negotiating for the take-over of the existing private waterline owned by Campbell Estate." (P. 11.) Elsewhere, the EIS indicates: "Presently, no plans for the construction of a water system in Kahuku have been incorporated in the Board of Water Supply's 6-year program." (P. 20.) Some explanation of the apparent inconsistency is in order.

Response

and the narrow coastal plains also result in flooding problems. A clear and concise description of the area is available in the Board of Water Supply "Oahu Water Plan," published in 1963 (pp. 24 et seq.), though the service area for Board of Water Supply does not coincide entirely with yours.

It would help if the related maps were placed within the body of the EIS rather than at the end, so that maps and text could be related.

Response

Please refer to the following pages for the revised description of the physical features of the area: pp. 17-1a, 171b and 20-2d.

We note your suggestion to place the related maps within the body of the EIS. Due to the referencing of the maps at various places in the text, they were placed at the end of the text.

2. Comment

Population and Housing: In a section entitled "c. Demography" (p. 23), there is one sentence indicating a 1970 population of 10,562 and a 1975 population of 11,258; and another sentence indicating a 1970 housing count of 2,886 units and 1975 estimate of 3,581 units. The source is not given.

Elsewhere (p. 4), it is indicated: "The State Department of Planning and Economic Development estimates 14,890 presently (1975) in the Kahuku-Kahuluu area. Its year 2000 projection for the area, based on the 'Series E-2' population projections, is 20,000 people."

The 1975 population figures are inconsistent. Furthermore, the Department of Planning and Economic Development does not provide projections for small areas, i.e., smaller than counties. The reference

Comment

5. Airfields

The EIS indicates that Kahuku airfield is privately owned and that there are no known future plans for expansion of the airfield. More importantly, the EIS should indicate the present use of the airfield, if any, for aircraft operations and the use of the surrounding area, particularly if other than aircraft operations are involved.

6. Alternatives

The EIS should show a map of the ten alternate locations considered in the site selection study in February 1974. (P. 37.)

7. Site Topography

A topographic map of the site should be included in the EIS. Topographic maps of the area with 2-foot contour intervals are probably available at the Department of Public Works; if not, the Department of Land Utilization may have aerial photo contour maps with 5-foot contour intervals.

The EIS indicates: "A small hill (slope 5% and greater) is situated immediately south of the site." (P. 26.) It is not until considerably later (p. 30) that the significance of this becomes clear: " . . . runoff from the hill at the rear during heavy rainfall causes ponding." The EIS, however, does not indicate how much of the site would be flooded during a normal heavy rain.

8. Site Drainage

It is indicated that the site "will be raised by means of earth fill to develop usable area for the proposed facilities and prevent possible flooding . . . ." (P. 34.) This is in direct conflict with the statement: "The City and County General Plan DLUM of the site does not indicate any unbuildable flood plains." (P. 30.)

It should be pointed out that the DLUM was never intended to provide flood data for specific sites. Even the more recent map of flood prone areas (Plate No. 5) in the EIS was not intended to provide site-specific data.

The EIS should indicate the ultimate fate of drainage from the site after filling, particularly since no drainage system exists in the area. Will drainage be channelled into the highway right-of-way? How much? Will adjacent properties be affected? Also, how much fill will be required?

Response

for the 20,000 projection seems to be the City's revised General Plan adopted under Resolution 238. There is no indication of the distribution of the 1975 population and housing, or whether this was a factor in the site selection.

Response

Regarding Section C. Demography (p. 23), please refer to the revisions in the text.

Please refer to the revision in the text on page 4 concerning the inconsistency in the 1975 population figures. One of the factors leading to the selection of the final site was its location very close to the existing center of population and housing (see Plate Nos. 2 and 6).

3. Comment

Bird Refuge Areas: The EIS indicates: "Ponds which are or will become bird refuges are Kii, Puu, and Punahoolapa." (P. 24)

Our USGS maps show a Punamano marsh and a Punamano Spring; we cannot locate any Puu pond.

Response

The correct names of the ponds have been incorporated within the text of the EIS (page 24).

4. Comment

Water: The EIS indicates: "The City is in the process of negotiating for the take-over of the existing private waterline owned by Campbell Estate." (P. 11) Elsewhere, the EIS indicates: "Presently, no plans for the construction of a water system in Kahuku have been incorporated in the Board of Water Supply's 6-year program." (P. 20) Some explanation of the apparent inconsistency is in order.

Comment

9. Soils

Soil types on the site are indicated, but the characteristics of the soils are not fully described. These are available in the Soil Conservation Service report (pp. 162-163 and 188-189). There are some adverse characteristics--moderate to low shrink-swell potential, poor compaction characteristics, erodible, poorly-drained--for some uses.

10. Roadway Relocation

Plate No. 4 shows an existing dirt road cutting across the site, with the indication that this will be relocated along the boundary of the site. The EIS should indicate where this dirt road goes, how much traffic it carries, and who will have jurisdiction over the new dirt road, i.e., will it be a private road? Dust from the dirt road may have an adverse impact on activities on the proposed site.

11. Helicopter Operations

The results of noise tests from helicopter operations are not integrated into the EIS. The consultant indicates that "take-off noise will remain in the unacceptable level for residents living within 400 feet on either side of the take-off line, until the helicopter attains an elevation of 500 feet." (Appendix A, p. 13.) The consultant also provides a table showing predicted noise levels (Table 3) and four levels of classification: Clearly Unacceptable, Normally Unacceptable, Conditionally Acceptable, and Normally Acceptable.

These zones should be plotted on a suitable map of the area, and estimates should be made of the number of housing units in the Unacceptable categories. The EIS should also indicate what percent of the community would be so affected.

The EIS indicates that to reduce the impact of noise, "Helicopter approaches and take-offs will normally be made only over the unpopulated areas." (P. 35.) From what is shown on Plates 2 and 5, the proposed site is in the heart of the existing development, and the options for flying over unpopulated areas will be limited.

The EIS indicates that "Due to clearance regulations for helicopter landing and take-off from the helipad, surrounding land uses will be restricted." (P. 36.) The EIS does not show what areas will be affected; neither are the proposed restrictions described.

The appendix includes a letter from the Federal Aviation Administration (FAA) to the Building Superintendent, dated

Response

Response

We note the inconsistency between pages 11 and 20 in the text and have made the appropriate changes.

According to the "Updated Summary of Principal Private Water Systems of Oahu", December 1976, the City and County Board of Water Supply has plans for the completion of a source, reservoir and connecting pipelines at Kahuku by the end of 1977.

5. Comment

Airfields: The EIS indicates that Kahuku airfield is privately owned and that there are no known future plans for expansion of the airfield. More importantly, the EIS should indicate the present use of the airfield, if any, for aircraft operations and the use of the surrounding area, particularly if other than aircraft operations are involved.

Response

A portion of the airfield site is leased by Kuilima, but use is restricted because of the overgrowth of vegetation. A smaller portion is leased by Campbell Estates for the purposes of aquaculture. Please refer to page 19 in the text.

6. Comment

Alternatives: The EIS should show a map of the ten alternate locations considered in the site selection study in February 1974. (P. 37)

Response

A map of the ten alternate sites of the Site Selection Study will be included (Plate No. 11).

Comment

July 9, 1976, indicating that proposed helipads at Sites A and B had been evaluated by FAA and that "Site A would be more desirable from a noise abatement standpoint," but that airway/highway clearance appeared to be inadequate. FAA recommended that the helipad be moved further away from the highway to attain the necessary clearance, "as well as to clear the existing overhead power lines."

The EIS does not show where Sites A and B were, or whether the site shown in Plate 4 meets FAA requirements. The EIS does not indicate the presence of the overhead power lines referred to in the FAA letter.

12. Trees

The EIS (p. 28) lists various types of trees presently found on the proposed site. There is no indication as to whether any of the trees are worth saving or whether any of them can or will be integrated into the plans for development of the complex.

Sincerely,

ROBERT R. WAY
Chief Planning Officer

RRW:fmt

Response

7. Comment

Site Topography: A topographic map of the site should be included in the EIS. Topographic maps of the area with 2-foot contour intervals are probably available at the Department of Public Works; if not, the Department of Land Utilization may have aerial photo contour maps with 5-foot contour intervals.

The EIS indicates: "A small hill (slope 5% and greater) is situated immediately south of the site." (P. 26) It is not until considerably later (P. 30) that the significance of this becomes clear: ". . . runoff from the hill at the rear during heavy rainfall causes ponding." The EIS, however, does not indicate how much of the site would be flooded during a normal heavy rain.

Response

We have included an available topographic map of the area (Plate No. 4), with contours at 10-foot intervals.

Surface runoff from the hill and the site itself creates some ponding on the site in the sump areas. However, no flooding problems are anticipated. Drainage can be handled adequately on the site itself, possibly through the use of a drywell, culverts, or minor swale work. More specific details will be provided during the design phase when a drainage study will be made.

8. Comment

Site Drainage: It is indicated that the site "will be raised by means of earth fill to develop usable area for the proposed facilities and prevent possible flooding . . ." (P. 34) This is in direct conflict with the statement: "The City and County General Plan DLUM of the site does not indicate any unbuildable flood plains." (P. 30)

Response

It should be pointed out that the DLUM was never intended to provide flood data for specific sites. Even the more recent map of flood prone areas (Plate No. 5) in the EIS was not intended to provide site-specific data.

The EIS should indicate the ultimate fate of drainage from the site after filling, particularly since no drainage system exists in the area. Will drainage be channelled into the highway right-of-way? How much? Will adjacent properties be affected? Also, how much fill will be required?

Response

Our statement regarding "will be raised by means of earth fill to develop usable area for the proposed facilities and prevent possible flooding . . ." has been clarified in the revised EIS. Please refer to the corrections on page 32. The sump areas of the site will be filled with earth to eliminate the ponding problems.

Also, we note your concern that the DLUM was never intended to provide flood data for specific sites. More detailed studies of drainage and flooding will be conducted during the design stage of this project.

We feel that the drainage can be handled on the site itself. Again, the necessary specifics will be obtained during a detailed design study.

9. Comment

Soils: Soil types on the site are indicated, but the characteristics of the soils are not fully described. These are available in the Soil Conservation Service report (pp. 162-163 and 188-189). There are some adverse characteristics--moderate to low shrink-swell potential, poor compaction characteristics, erodible, poorly-drained--for some uses.

Response

Please refer to pages 26 and 27 in the revised EIS.

10. Comment

Roadway Relocation: Plate No. 4 shows an existing dirt road cutting across the site, with the indication that this will be relocated along the boundary of the site. The EIS should indicate where this dirt road goes, how much traffic it carries, and who will have jurisdiction over the new dirt road, i.e., will it be a private road? Dust from the dirt road may have an adverse impact on activities on the proposed site.

Response

The coral road leads to several residences, farm lands and the lands of Campbell Estate on which are located a nursery and water pump. The traffic count obtained from Campbell Estate is 1360 cars per month.

The dust from the road will not have an adverse impact on the proposed site because of the infrequent use by cars.

11. Comment

Helicopter Operations: The results of noise tests from helicopter operations are not integrated into the EIS. The consultant indicates that "take-off noise will remain in the unacceptable level for residents living within 400 feet on either side of the take-off line, until the helicopter attains an elevation of 500 feet." (Appendix A, p. 13) The consultant also

Response

provides a table showing predicted noise levels (Table 3) and four levels of classification: Clearly Unacceptable, Normally Unacceptable, Conditionally Acceptable, and Normally Acceptable.

These zones should be plotted on a suitable map of the area, and estimates should be made of the number of housing units in the Unacceptable categories. The EIS should also indicate what percent of the community would be so affected.

The EIS indicates that to reduce the impact of noise, "Helicopter approaches and take-offs will normally be made only over the unpopulated areas." (P. 35) From what is shown on Plates 2 and 5, the proposed site is in the heart of the existing development, and the options for flying over unpopulated areas will be limited. The EIS indicates that "Due to clearance regulations for helicopter landing and take-off from the helipad, surrounding land uses will be restricted." (P. 36) The EIS does not show what areas will be affected; neither are the proposed restrictions described.

The appendix includes a letter from the Federal Aviation Administration (FAA) to the Building Superintendent, dated July 9, 1976, indicating that proposed helipads at Sites A and B had been evaluated by FAA and that "Site A would be more desirable from a noise abatement standpoint," but that airway/highway clearance appeared to be inadequate. FAA recommended that the helipad be moved further away from the highway to attain the necessary clearance, "as well as to clear the existing overhead power lines."

The EIS does not show where Sites A and B were, or whether the site shown in Plate 4 meets FAA requirements. The EIS does not indicate the presence of the overhead power lines referred to in the FAA letter.

Response

The flight path of the helicopter sets obstruction clearance planes which define vertical and transitional clearance requirements above the ground surface. There are two obstruction clearance planes delineated, one for approach and one for departure, each of which consists of an approach-departure clearance surface and two transitional planes. The approach-departure clearance surfaces are at a 8:1 slope, extending upward and outward from the edge of the landing area. The width of the surface at the edge of the landing area coincides with the width of the landing area itself (60 feet), then flares uniformly to a width of 500 feet at a lateral distance of 4000 feet from the landing area. In addition, transitional planes ("Side slopes") extend outward and upward from the edges of the approach-departure surfaces at a slope of 2:1 to a total width of 500 feet. Thus, the total width of the obstruction-clearance planes is 500 feet. Please refer to Plate No. 5 for the delineation of the obstruction-clearance planes.

Although the planes are defined for a distance of 4000 feet, the flight path may curve in any direction at a lateral distance of 300 feet from the landing area. Thus, the only section that is rigidly set is the first 300 feet from the landing area, at which the height of the plane is 37+ feet. For our project, a lateral distance of 300 feet will bring the helicopter to just about the boundary of the project site.

The lands beyond the boundary of the project site are presently zoned for agricultural and residential uses. Both zones limit building heights to 25 feet. Thus, the zoning restriction easily limits the building heights so that the flight path clearance requirements are fulfilled.

Response

The approach-departure paths delineated are over unpopulated areas. Although the options for these paths were limited, we managed to select paths that conformed to helicopter flight requirements and were still over unpopulated areas (refer also to Section III - B. 3f. Noise, pp. 32-38). Sites A and B as referred to in Appendix C, are Sites D and B-2, respectively, in the Site Selection Study. Refer to Plate No. 11 for the location of the alternate sites. Design of the selected site reflected the FAA recommendations to attain the necessary clearance and thus meets FAA requirements. The overhead power lines are shown on the topo map, Plate No. 4.

12. Comment

Trees: The EIS (p. 28) lists various types of trees presently found on the proposed site. There is no indication as to whether any of the trees are worth saving or whether any of them can or will be integrated into the plans for development of the complex.

Response

The only trees that will be saved are the two False Kamani or Tropical Almond Trees (Terminalis catappa). These two trees are integrated in the project development plan.

Thank you for your comments and interest in our project.

Ernest T. Yuasa

ERNEST T. YUASA
Director and Building Superintendent

AP:ww
cc: J. Harada

Comment

DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

WALLACE MIYAHIRA
DIRECTOR AND CHIEF ENGINEER

PLEASE RETURN FOR FILING

MAR 28 11 07 AM '77
REFERRED TO

ENV 77-157

March 23, 1977

MEMORANDUM

TO : MR. ERNEST T. YUASA, DIRECTOR AND BUILDING SUPERINTENDENT
BUILDING DEPARTMENT

FROM : WALLACE MIYAHIRA, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT FOR KAHUKU AMBULANCE, FIRE AND POLICE STATION, KAHUKU, OAHU

We have reviewed the subject EIS and have the following comments.

1. Grading and drainage plans for the proposed facility should be coordinated with the Division of Engineering.
2. Cesspools should be located in an area where they can be serviced readily by the Division of Sewers' cesspool trucks in the event of cesspool's failure.
3. For planning purpose, the number of personnel manning the proposed facility should be given.
4. The size of solid waste pick-up container will be dependent on the size of the staff. Probably a 3-4 cubic feet steel container will suffice. The loading site should be accessible to meet the turning requirements of the Division of Refuse's front end loader.

WALLACE MIYAHIRA
Director and Chief Engineer

cc: Div. of Engineering
Div. of Sewers
Div. of Refuse

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-498

August 2, 1977

TO: MR. WALLACE MIYAHIRA, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

FROM: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

1., 2., 3., and 4. Comments

Grading and drainage plans for the proposed facility should be coordinated with the Division of Engineering.

Cesspools should be located in an area where they can be serviced readily by the Division of Sewers' cesspool trucks in the event of cesspool's failure.

For planning purpose, the number of personnel manning the proposed facility should be given.

The size of solid waste pick-up container will be dependent on the size of the staff. Probably a 3-4 cubic feet steel container will suffice. The loading site should be accessible to meet the turning requirements of the Division of Refuse's front end loader.

Response

Response

We have noted your concerns and will include them in the design stage of the project.

Please refer to Page 10 of the revised EIS for the estimated number of personnel needed to man the new facility.

Thank you for your comments and interest in our project.

Ernest T. Yuasa

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET,
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

GEORGE S. MORIGUCHI
DIRECTOR

LU3/77-1084(GN)

April 1, 1977

Mr. Donald Bremner, Acting Chairman
Environmental Quality Commission
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii

Dear Mr. Bremner:

Environmental Impact Statement
Kahuku Ambulance, Fire and Police Station

We have reviewed the above and are in agreement with the objectives of the action proposed. Overall, we feel that the statement submitted provides adequate information on the affected environment.

We do note, however, that it would be most beneficial to the reviewer to include excerpts of the site selection study as part of this EIS. This is an area of significant importance that should be identified.

We appreciate the opportunity to review and comment on this statement.

Very truly yours,

GEORGE S. MORIGUCHI
Director of Land Utilization

GSM:ey

cc: Dept. of General Planning
Building Department

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-500

July 26, 1977

TO: MR. GEORGE S. MORIGUCHI, DIRECTOR
DEPARTMENT OF LAND UTILIZATION

FROM: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

Comment

We do note, however, that it would be most beneficial to the reviewer to include excerpts of the site selection study as part of this EIS. This is an area of significant importance that should be identified.

Response

A map of the ten alternative sites (see Alternate Site Locations - Plate No. 11) and a matrix summarizing (see Evaluation Table - Plate No. 12) the relative disadvantages and advantages of each will be included in the revised EIS.

Thank you for your comments and interest in our project.

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

Kazu Hayashida
DIRECTOR

TE3/77-786

April 11, 1977

Environmental Quality Commission
550 Halekauwila St., Rm. 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
Kahuku Ambulance, Fire and Police
Stations, Kahuku, Oahu

We believe that there will be some traffic impact on Kamehameha Highway during construction of the facilities.

We recommend that the contractor provide, install and maintain all necessary signs and protective facilities in conformance with the "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Highway Safety Coordinator, and Part VI - "Traffic Control for Highway Construction and Maintenance Operations" of the Federal Highway Administrations's "Manual on Uniform Traffic Control Devices for Streets and Highways".

Very truly yours,

for KAZU HAYASHIDA
Director

cc: Dept. of General Planning
Building Department

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-497

July 26, 1977

TO: MR. KAZU HAYASHIDA, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

We have reviewed your comments and made the appropriate changes in the text of the revised Environmental Impact Statement.

Comment

We believe that there will be some traffic impact on Kamehameha Highway during construction of the facilities.

We recommend that the contractor provide, install and maintain all necessary signs and protective facilities in conformance with the "Rules and Regulations Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Highway Safety Coordinator, and Part VI - "Traffic Control for Highway Construction and Maintenance Operations" of the Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways."

Response

We have included the suggestions for the contractor to lessen traffic impact on Kamehameha Highway.

Thank you for your comments and interest in our project.

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

Comment

PLEASE RETURN FOR FILING

University of Hawaii at Manoa

Environmental Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 948-7361

Office of the Director

RE:0219

RECEIVED BUILDING DEPT. C&C OF HONOLULU APR 25 5 13 PM '77 REFERRED TO

April 22, 1977

TO: Dept. of General Planning, City and County of Honolulu

FROM: Doak C. Cox

RE: Kahuku Ambulance, Fire and Police Station
Draft Environmental Impact Statement (DEIS)

The Environmental Center's review of the above cited DEIS has been prepared with the assistance of Michael Chun (Public Health) and Rashi Ahmad, Jacquelin Miller and Clare Shinsato (Environmental Center). The following comments are submitted for your consideration.

Page 2. 4E. and Page 35.f-Noise.

"Due to clearance regulations...future use of surrounding lands could be restricted." What effect will the flight path requirements over non-populated areas, whether legal or defacto, have on land use over the subject areas as well as on the owners of the property? What areas and how many acres are affected? How many property owners are affected? What mitigating measures will be taken? The social-economic impacts due to the restricted land use should be fully discussed in the final EIS.

Page 7-Ambulance Service.

Will the City and County continue to contract private ambulance services once the proposed facilities are operational? If contracts to private services are terminated, the EIS should address the impact on the private ambulance services.

Page 11 and 20-Sewage.

The use of cesspools is planned for the proposed project because no sewer system exists in the Kahuku area. Development plans for Koolauloa Housing project is currently in progress and includes provisions for sewage facilities. The City and County's projected construction date for the proposed sewer system is June 1978. Consideration should be given to tie into the Koolauloa sewer system and fully discussed in the final EIS. Contact should be made with the City and County Public Works division regarding this possibility.

Page 12-Phasing and Timing and Page 32-Noise.

Confining noise producing activities to working hours only does not alleviate the noise problem at Kahuku School and should be evaluated more fully. What noise levels are expected in the classrooms and for how many months?

Response

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

ERNEST T. YUASA
DIRECTOR AND BUILDING SUPERINTENDENT

PB 77-503

July 26, 1977

Mr. Doak C. Cox
Environmental Center
University of Hawaii at Manoa
Crawford 317
2550 Campus Road
Honolulu, Hawaii 96822

Dear Mr. Cox:

Subject: Kahuku Ambulance, Fire and Police Station
Environmental Impact Statement

We have reviewed your comments and have made the appropriate changes in the text of the revised Environmental Impact Statement.

1. Comment

Page 2. 4E. and Page 35.f-Noise.

"Due to clearance regulations...future use of surrounding lands could be restricted." What effect will the flight path requirements over non-populated areas, whether legal or defacto, have on land use over the subject areas as well as on the owners of the property? What areas and how many acres are affected? How many property owners are affected? What mitigating measures will be taken? The social-economic impacts due to the restricted land use should be fully discussed in the final EIS.

Comment

What mitigating measures can and will be taken? Consideration should be given to scheduling construction activities such as grading, etc., during the summer months rather than in October.

Page 36.IV.-Adverse Impacts

Vehicular traffic attracted to the proposed facilities would occur during non-peak traffic hours and would appear to have very little adverse impact if any.

Alternative Sites. No description and discussion is found on alternative site A which is referred to in letters by several agencies in Appendices B and C. The final EIS should include the location of the site as well as the rational for selection of Site B over Site A.

NOISE IMPACT STUDY

Helicoptor Noise. "Little can be done to alleviate this situation except through careful use of noise barriers and well planned takeoff angle and speed."

The EIS should address the use of noise barriers, the location, type, and effect of air circulation to the school facilities as well as aesthetic considerations.

With the projected population increase, use of helicoptor services would also be expected to increase. The final EIS should include projected increase of helicoptor services and the impact on the community and school.

We appreciate the opportunity to review this draft Environmental Impact Statement.

cc: Building Dept., C & C of Honolulu
Reviewers
OEQC

Response

Response

The flight path of the helicopter sets obstruction clearance planes which define vertical and transitional clearance requirements above the ground surface. There are two obstruction clearance planes delineated, one for approach and one for departure, each of which consists of an approach-departure clearance surface and two transitional planes. The approach-departure clearance surfaces are at a 8:1 slope, extending upward and outward from the edge of the landing area. The width of the surface at the edge of the landing area coincides with the width of the landing area itself (60 feet), then flares uniformly to a width of 500 feet at a lateral distance of 4000 feet from the landing area. In addition, transitional planes ("side slopes") extend outward and upward from the edges of the approach-departure surfaces at a slope of 2:1 to a total width of 500 feet. Thus, the total width of the obstruction-clearance planes is 500 feet. Please refer to Plate No. 5 for the delineation of the obstruction-clearance planes.

Although the planes are defined for a distance of 4000 feet, the flight path may curve in any direction at a lateral distance of 300 feet from the landing area. Thus, the only section that is rigidly set is the first 300 feet from the landing area, at which the height of the plane is 37+ feet. For our project, a lateral distance of 300 feet will bring the helicopter to just about the boundary of the project site.

The lands beyond the boundary of the project site are presently zoned for agricultural and residential uses. Both zones limit building heights to 25 feet. Thus, the zoning restriction easily limits the building heights so that the flight path clearance requirements are fulfilled. There may be restrictions in the future should a change in zoning allow construction of a building that would obstruct the flight path. In that case, construction of a building that may obstruct

Response

helicopter flight would require FAA approval (see Federal Aviation Regulations, Part 77, Objects Affecting Navigable Airspace, Department of Transportation, Federal Aviation Administration, January, 1975).

Since the facilities are being built to satisfy the operational needs of the police and since Campbell Estate does not have positive plans to develop the area, the social and economic impacts cannot be ascertained at this time.

(Refer also to Section III - B. 3f. Noise, pp. 32-38).

2. Comment

Page 7 - Ambulance Service.

Will the City and County continue to contract private ambulance services once the proposed facilities are operational? If contracts to private services are terminated, the EIS should address the impact on the private ambulance services.

Response

The City and County will operate the proposed ambulance facility. The private ambulance service will be terminated and City and County employees provided.

3. Comment

Page 11 and 20 - Sewage.

The use of cesspools is planned for the proposed project because no sewer system exists in the Kahuku area. Development plans for Koolauloa Housing project is currently in progress and includes provisions for sewage facilities. The City and County's projected construction date for the proposed sewer system is June 1978. Consideration should be given to tie into the Koolauloa sewer system and fully discussed in the final EIS. Contact should be made with the City and County Public Works division regarding this possibility.

Response

The completion date for the sewer system which is part of the Koolauloa Housing project is presently set for September 1979. It appears possible that our project will be able to tie into the Koolauloa sewer system. Coordination with the appropriate agencies will be conducted when design plans become more definite.

4. Comment

Page 12 - Phasing and Timing and Page 32 - Noise.

Confining noise producing activities to working hours only does not alleviate the noise problem at Kahuku School and should be evaluated more fully. What noise levels are expected in the classrooms and for how many months? What mitigating measures can and will be taken? Consideration should be given to scheduling construction activities such as grading, etc., during the summer months rather than in October.

Response

We have noted your comment on noise, please refer to Section III - A.5. Noise Pollution, page 28.

5. Comment

Page 36.IV. - Adverse Impacts.

Vehicular traffic attracted to the proposed facilities would occur during non-peak traffic hours and would appear to have very little adverse impact if any.

Alternative Sites. No description and discussion is found on alternative Site A which is referred to in letters by several agencies in Appendices B and C. The final EIS should include the location of the site as well as the rationale for selection of Site B over Site A.

Response

We note your comment that vehicular traffic attracted to the proposed facilities would occur during non-peak traffic hours and thus would have very little adverse impact. We are of the opinion that regardless of when the increase in traffic would occur, there would still result additional impacts due to the increased noise and pollution brought about by the increased traffic.

Alternate Sites - Please refer to the discussion on page 40 and Plate Nos. 11 and 12. Sites A and B which are referred to in Appendix C are Sites D and B-2, respectively, in the Site Selection Study.

6. Comment

Noise Impact Study.

Helicoptor Noise. "Little can be done to alleviate this situation except through careful use of noise barriers and well planned takeoff angle and speed."

The EIS should address the use of noise barriers, the location, type, and effect of air circulation to the school facilities as well as aesthetic considerations.

With the projected population increase, use of helicopter services would also be expected to increase. The final EIS should include projected increase of helicopter services and the impact on the community and school.

Response

We have noted your comment, please refer to Section III - B. 3f. Noise, pp. 31 - 35.

Thank you for your comments and interest in our project.

Very truly yours,

Ernest T. Yuasa

ERNEST T. YUASA
Director and Building Superintendent

AF:ww
cc: J. Harada

2. Letters Requiring No Response

a. Federal

Department of the Army (Corps of Engineers)

Department of the Army

Department of the Interior, Fish and Wildlife Service

Department of the Navy

Department of Agriculture, Soil Conservation Service

Department of the Air Force

b. State

Department of Defense, Office of the Adjutant General

Department of Planning and Economic Development

Department of Agriculture

Department of Land and Natural Resources

Department of Social Services and Housing

c. City & County of Honolulu

Board of Water Supply

Department of Housing and Community Development

d. University of Hawaii

Water Resources Research Center

DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, CORPS OF ENGINEERS
BLDG. 230, FT. SHAFTER
APO SAN FRANCISCO 96558

PODED-PV

24 March 1977

Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Sirs:

In compliance with your request of 18 March 1977, we have reviewed the Environmental Impact Statement for the proposed Kahuku Ambulance, Fire and Police Station. We have no comments to make at this time, but appreciate the opportunity to review the statement.

Sincerely yours,

KISUK CHEUNG
Chief, Engineering Division

CF:

Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

PLEASE RETURN
FOR FILING

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
Mar 23 4 14 PM '77

REFERRED TO
28 MAR 1977

AFZV-FE-EE

Environmental Quality Commission
550 Halekauwila Street Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement (EIS) for Kahuku Ambulance, Fire and Police Station dated February 1977 has been reviewed and we have no comments.

The EIS is returned in accordance with your request.

Thank you for the opportunity to review this document.

Sincerely yours,

CARL P. RODOLPH
Colonel, CE
Director of Facilities Engineering

CF:
Building Dept
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SUPPORT COMMAND, HAWAII
APO SAN FRANCISCO 96558

APZV-FE-EE

28 MAR 1977

Environmental Quality Commission
550 Halekauwila Street Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement (EIS) for Kahuku Ambulance, Fire and Police Station dated February 1977 has been reviewed and we have no comments.

The EIS is returned in accordance with your request.

Thank you for the opportunity to review this document.

Sincerely yours,

CARL P. RODOLPH
Colonel, CE
Director of Facilities Engineering

1 Incl
as

CF:
Building Dept
City & County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
821 Mililani Street
Honolulu, Hawaii 96813

Reference: ES

March 29, 1977

Environmental Quality Commission
550 Halekauwila St., Room 301
Honolulu, Hawaii 96813

Dear Sir:

We have no additional comments to offer on the EIS entitled Kahuku Ambulance, Fire and Police Station.

We are returning the copy as requested.

Sincerely,

M. Taylor per
Maurice H. Taylor
Field Supervisor

cc: Henry A. Hansen
Hawaii Administrator

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

6

HEADQUARTERS
FOURTEENTH NAVAL DISTRICT
BOX 110
FPO SAN FRANCISCO 96610

IN REPLY REFER TO:
48A:AMN:amn
Ser 623

30 MAR 1977

Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement
Kahuku Ambulance, Fire and Police Station

The Navy has no comments on the Kahuku Ambulance, Fire and Police Station Environmental Impact Statement forwarded by your letter of 18 March 1977. As requested, the EIS is returned. Thank you for the opportunity to review the EIS.

Sincerely,

R. P. NYSTEDT
CAPTAIN, CEC, USN
DISTRICT CIVIL ENGINEER
BY DIRECTION OF THE COMMANDANT

Encl

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
440 Alexander Young Building, Honolulu, HI 96813

April 11, 1977

Mr. Donald Bremner
Environmental Quality Commission
550 Halekauwila St., Rm. 301
Honolulu, HI 96813

Dear Mr. Bremner:

Subject: Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu

We have reviewed the above environmental impact statement and have no comments to offer.

Thank you for the opportunity to review this document.

Sincerely,

Donald A Simons, acting

Jack P. Kanalz
State Conservationist

Enclosure: EIS

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 15th AIR BASE WING (PACAF)
APO SAN FRANCISCO 96553

REPLY TO ATTN OF: DEEE (Mr. Nakashima, 4492158) 15 APR 1977

SUBJECT: Environmental Impact Statements

TO: Environmental Quality Commission
550 Halekauwila St., Room 301
Honolulu, Hawaii 96813

1. This headquarters has no comment to render relative to the following environmental impact statements:

Kahuku Ambulance, Fire and Police Station
Kahuku, Oahu

Wahiawa Civic Center Expansion
Wahiawa, Oahu

2. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your development projects throughout the State and the opportunity to review the subject statements.

THOMAS L. HEDGE, Colonel, USAF
Director of Civil Engineering

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
FORT RUGER, HONOLULU, HAWAII 96816

VALENTINE A. SIEFERMANN
MAJOR GENERAL
ADJUTANT GENERAL

22 MAR 1977

HIENG

Dr. Albert Tom, Chairman
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Tom:

Kahuku Ambulance, Fire and Police Station

Thank you for sending us a copy of the "Kahuku Ambulance, Fire and Police Station" Environmental Impact Statement. We have received the publication and have no comments to offer.

Yours truly,

WAYNE R. TOMOYASU
Captain, CE, HARNG
Contr & Engr Officer

Enclosure

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

Kamamalu Building, 250 South King St., Honolulu, Hawaii • Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

GEORGE R. ARIYOSHI
Governor
HIDETO KONO
Director
FRANK SKRIVANEK
Deputy Director

March 28, 1977

Ref. No. 3237

PLEASE RETURN FOR FILING

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
MAR 31 4 10 PM '77
REFERRED TO

Mr. Ernest Yuasa, Director
Building Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Yuasa:

Subject: Environmental Impact Statement, Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu

Our agency has reviewed the subject E.I.S. and has determined that, in general, it has adequately addressed the major environmental impacts which can be anticipated as a result of the proposed project.

Thank you for the opportunity to review this statement.

Sincerely,

HIDETO KONO

3-30-77

4/1/77

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

March 28, 1977

JOHN FARIAS, JR.
CHAIRMAN, BOARD OF AGRICULTURE

YUKIO KITAGAWA
DEPUTY TO THE CHAIRMAN

BOARD MEMBERS:

IRWIN M. HIGASHI
MEMBER - AT - LARGE

ERNEST F. MORGADO
MEMBER - AT - LARGE

KALFRED K. YEE
MEMBER - AT - LARGE

SHIZUTO KADOTA
HAWAII MEMBER

STEPHEN D. L. AU
KAUAI MEMBER

FRED M. OGASAWARA
MAUI MEMBER

MEMORANDUM

To: Environmental Quality Commission

Subject: Kahuku Ambulance, Fire and Police Station
TMK: 5-6-06:(por.), 16 (por.)

The Department of Agriculture has no comments regarding the above proposed project.

Thank you for the opportunity to comment.

JOHN FARIAS, JR.
Chairman, Board of Agriculture

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

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

April 14, 1977

CHRISTOPHER COBB, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMABU
DEPUTY TO THE CHAIRMAN

DIVISIONS:
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

Environmental Quality Commission
550 Halekauwila St.
Honolulu, HI 96813

Gentlemen:

We have nothing to add to our January 3, 1977 comments on the EIS for the Kahuku emergency services station.

Very truly yours,

GORDON SOH
Program Planning Coordinator

cc: DOWALD
Historic Sites

GEORGE R. ARIYOSHI
GOVERNOR

ANDREW I. T. CHANG
DIRECTOR OF SOCIAL SERVICES & HOUSING

PLEASE RETURN FOR FILING

STATE OF HAWAII
DEPARTMENT OF SOCIAL SERVICES AND HOUSING
P. O. BOX 339
Honolulu, Hawaii 96809

RECEIVED
BUILDING DEPT.
C & C OF HONOLULU
APR 25 2 23 PM '77
REFERRED TO

April 15, 1977

MEMORANDUM

TO: Environmental Quality Commission
550 Halekauwila St., Room 301
Honolulu, Hawaii 96813

FROM: Andrew I. T. Chang, Director
Department of Social Services and Housing

SUBJECT: Kahuku Ambulances, Fire, and Police Station Environmental Support Statement

Subject EIS has been reviewed for its effect on our department program areas.

We have no comment to make and we are returning this EIS for your usage.

Thank you for the opportunity to review and comment.

Richard Paglinawan
for DIRECTOR

Attachment
cc: Mayor (Dept. of General Planning, C & C of Honolulu)
Building Dept., C & C of Honolulu

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

COPY

PLEASE RETURN FOR FILING

RECEIVED BUILDING DEPT. C & C OF HONOLULU APR 14 4 53 PM '77 REFERRED TO

April 11, 1977

Honorable Frank F. Fasi
Mayor,
City and County of Honolulu
Honolulu, Hawaii 96813

Dear Mayor Fasi:

SUBJECT: Environmental Impact Statement for Kahuku Ambulance, Fire and Police Station, Kahuku, Oahu

We have no objections to the proposed project. However, we request that the construction plans be coordinated with us.

Please call Mr. Lawrence Whang at 548-5221 if further information is needed.

Very truly yours,

Edward Y. Hirata
Manager and Chief Engineer

cc: Mr. Ernest T. Yuasa
Director and Building Superintendent
Building Department
City and County of Honolulu

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813
PHONE 523-4181

FRANK F. FASI
MAYOR

RICHARD K. SHARPLESS
MANAGING DIRECTOR

WILLIAM BLACKFIELD
DIRECTOR

TYRONE T. KUSAO
DEPUTY DIRECTOR

PLEASE RETURN FOR FILING

RECEIVED BUILDING DEPT. C & C OF HONOLULU APR 12 5 01 PM '77 REFERRED TO

April 11, 1977

TO : HONORABLE FRANK F. FASI, MAYOR

FROM : TYRONE T. KUSAO, ACTING DIRECTOR
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT

SUBJECT: KAHUKU AMBULANCE, FIRE AND POLICE STATION
ENVIRONMENTAL IMPACT STATEMENT

This is to acknowledge receipt of the Environmental Impact Statement on the subject facilities from the Environmental Quality Commission.

In our opinion, if there are any adverse effects upon the environment, they would certainly be negated by the benefits accruing to the present and future residents of the area.

We look forward to seeing the completion of these facilities.

TYRONE T. KUSAO
Acting Director

TTK:mn
cc: Building Department
Environmental Quality Commission

DGP 477-863

University of Hawaii at Manoa

Water Resources Research Center

RECEIVED
DEPT. OF GENERAL PLANNING
C & C OF HONOLULU

April 6, 1977 APR 12 3 18 PM '77

MEMORANDUM

REFERRED TO

Deputy Director
4-14-77

PLEASE RETURN FOR FILING

TO: Dept. of General Planning

FROM: Reginald H. F. Young
Assistant Director, WRRC

SUBJECT: EIS for Kahuku Ambulance, Fire and Police Station

We have reviewed the EIS and have no critical comment. We are retaining the EIS for our future reference.

RHFY/kn

cc: Env. Center
H. Gee
Y. Fok
F. Murabayashi

RECEIVED
'77 APR 12 AM 8:26
DEPT. OF GENERAL PLANNING
C & C HONOLULU