

January 30, 1979

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

Dear Mr. Bremner:

Subject: Environmental Impact Statement - Kealahou Regional
Sports Complex

Based upon the recommendation of the Office of Environmental Quality Control, I am pleased to accept the subject document as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes, the EIS Rules and Regulations and the Executive Order of August 23, 1971.

My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws, and does not constitute an endorsement of the proposed action. When the decision regarding the proposed action is made, I expect the decision-makers to weigh carefully the question of whether the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement, and, together with comments made by reviewers, should provide a useful analysis of the proposed action and its alternatives.

With warm personal regards, I remain,

Yours very truly,


George R. Ariyoshi

cc: Mr. Milton T. Hakoda, Director
Department of Parks and Recreation
Hawaii County

bcc: ✓ Mr. Richard L. O'Connell

REVISED EIS

KEALAKEHE REGIONAL
SPORTS COMPLEX

Department of Parks & Recreation
County of Hawaii

November 30, 1978

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Office of Environmental Quality Control
Office of the Governor
550 Halekiauila Street
Tani Office Building, Third Floor
Honolulu, Hawaii 96813

REVISED
ENVIRONMENTAL IMPACT STATEMENT
FOR
KEALAKEHE REGIONAL SPORTS COMPLEX
KEALAKEHE, HAWAII

Prepared For:
DEPARTMENT OF PARKS AND RECREATION
COUNTY OF HAWAII

Prepared By:
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November 30, 1978

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SECTION I

SUMMARY

The preparation of the development plan for the Kealakehe Regional Sports Complex was the result of long and persistent requests by the Kona residents for such a facility. The plan is the first step toward fulfillment of this need by providing a recreational complex to serve the west section of the Island of Hawaii (see Plate 1).

The development plan Kealakehe Regional Sports Complex, County of Hawaii, 1976, describes the various sports facilities proposed, together with development schedules and priority assignments, estimated capital improvement costs, estimated operation and maintenance expenses and probable revenues to be generated. The site at Kealakehe is well suited for this use in terms of location, topography, availability, and impacts upon the environment. Approximately 100 acres of land area is required to adequately accommodate all of the proposed facilities.

The provisional development schedule is divided into three major phases:

<u>Phase I, FY 1976-80</u>	<u>Phase II, FY 1981-85</u>	<u>Phase III, FY 1986-91</u>
Football-Track Stadium	Gymnasium Swimming Pool	Concert Hall Arts and Crafts
Baseball-Regulation	Tennis Courts	Exhibit Hall
Baseball-Little League	Roadway	Soccer
Utilities	Martial Arts	Equestrian Ring
Roadway Improvement	Parking Area	Archery
Parking Area		Drainage System Parking Area Roadway

High initial capital improvement expenditures are expected before the first sport facility can be opened for use. The annual operation and maintenance expenditures will increase incrementally with the completion of each subsequent facility. Revenues derived from rentals, concessions, and parking may vary widely depending on the policies to be adopted by the County; hence, low and high estimates are presented. It is expected that initial revenues will be modest and will increase in subsequent years with increased activities and attendance.

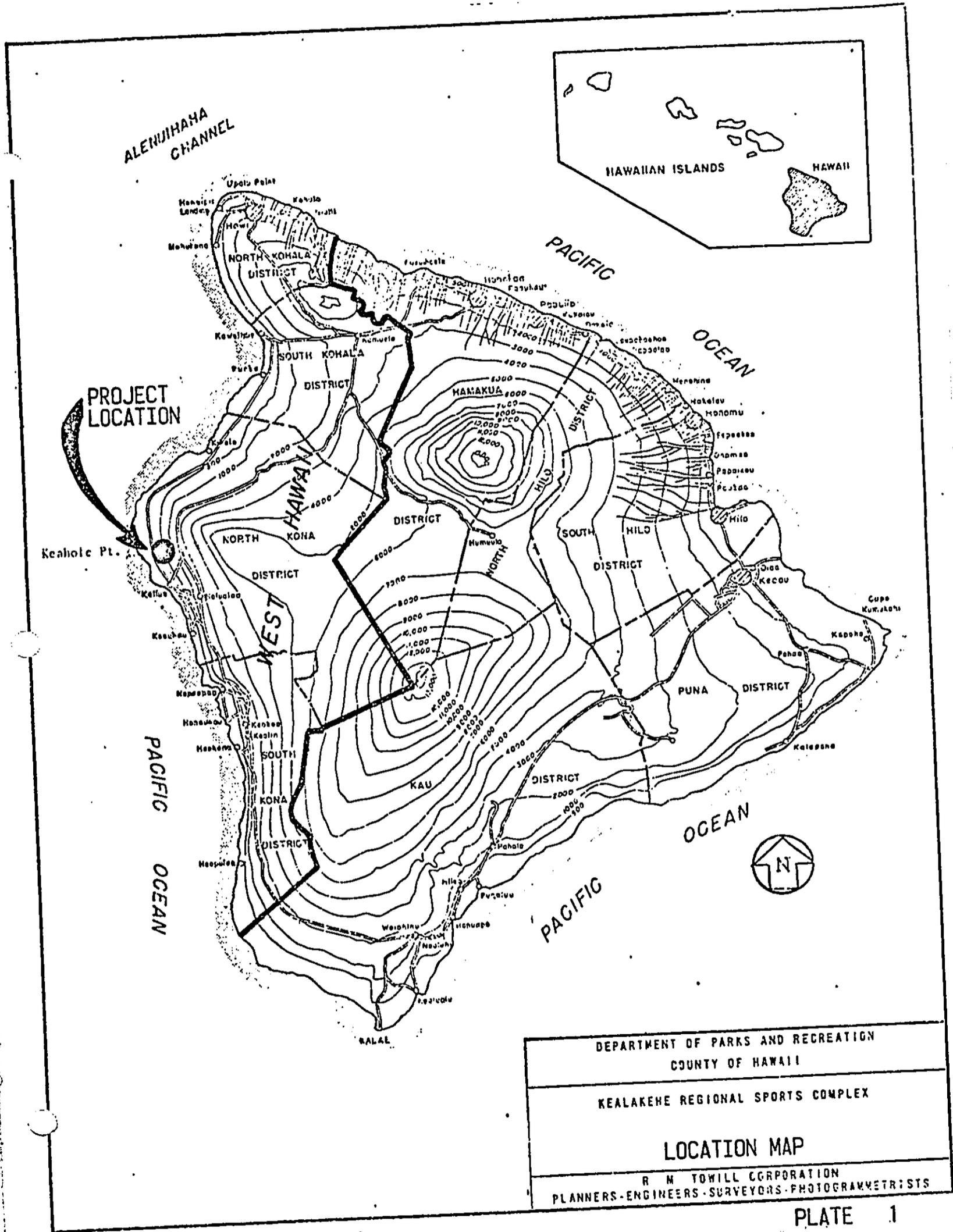
	<u>Phase I</u> <u>(FY1976-80)</u>	<u>Phase II</u> <u>(FY1981-85)</u>	<u>Phase III</u> <u>(FY1986-91)</u>
Capital Improvement Cost for Each Phase	\$5,788,000	\$8,393,000	\$11,495,000
Annual Operation and Maintenance Costs	83,500	179,500	270,000
Annual Revenues*	17,000/37,000	26,000/56,000	65,000/118,000

*Figures shown are the low/high range of estimated annual revenue.

The purpose of this Environmental Impact Statement (EIS) is to identify and evaluate the potential environmental impacts of the proposed Kealakehe Regional Sports Complex which is expected to be funded jointly by the County of Hawaii and State of Hawaii.

The proposed site is presently in its natural state except for the existing two-lane road connecting to Queen Kaahumanu Highway. The site is composed of undeveloped lava fields. The adverse effects upon the environment are believed to be of a minor nature. The impact of greatest significance will be the change in character of the land use, from unused or natural to developed land, resulting in minor losses of wildlife habitats and vegetation. The proposed development will add needed stimulus to the Kona construction industry and will have little effect on tourism and agriculture.

The State of Hawaii presently owns the proposed site in Kealakehe. It is administered by the Department of Land and Natural Resources. A regional Sports Complex development is in keeping with the General Development Plan of Kealakehe as laid out in the Department of Land and Natural Resources report titled, Kealakehe Development Plan, North Kona, Hawaii.



SECTION II

PROJECT DESCRIPTION

The proposed project site of the Kealakehe Regional Sports Complex is presented on Plate 2. It will serve West Hawaii as a regional sports facility under the County's Department of Parks and Recreation, in a manner similar to that of Hoolulu Park in Hilo. The site master plan is shown on Plate 3. The proposed Sports Complex is to be used primarily for major sporting events, which can be expected to attract large numbers of spectators. The site of the proposed complex is presently owned by the State of Hawaii. Land acquisition will be initiated by the County of Hawaii. A County request will be made to the State's Department of Land and Natural Resources for about 100 acres of land needed to accommodate the facilities planned for the complex. Transfer of these lands to the County will be by Executive Order of the Governor.

It is planned that the State and County levels of government will jointly and equally share the cost of constructing the proposed sports complex. The complex is planned in three phases as shown on Plate 4.

A. PHASE I

Phase I is to be initiated in either fiscal year 1977 or 1978, and will include football/track and baseball facilities and the major site improvements such as the collector road, access roads, grading, water transmission main, cesspools, underground electric and telephone ducts and drainage facilities.

Prior to completion of Phase I facilities, improvements to the Queen Kaahumanu Highway will be required to provide safe turning movements into the Kealakehe sports complex collector road and will consist of

deceleration, storage and acceleration lanes. Patrons from the populated areas of North and South Kona will probably travel by way of Palani Road and Kuakini Highway to get onto Queen Kaahumanu Highway and, at Kealakehe, make a right turn onto the collector road to the complex. Patrons from Kohala and Waimea areas will travel southward along Queen Kaahumanu Highway to Kealakehe then make a left turn onto the collector road.

The existing roadway now serving the adjacent warehouse, dog kennel, and County sanitary landfill site provides a substandard two-lane pavement. It has an 80-foot right-of-way which will be the alignment for the future collector road; however, a slight adjustment of the alignment as it intersects the highway may be necessary to provide a better geometric design of the intersection. The location of the existing intersection is presently the only access point from the highway to serve the mauka Kealakehe area.

During the initial development phases of the Sports Complex, traffic flow to and from the complex will be by way of Queen Kaahumanu Highway to get to the collector road and access road. The entire length of the collector road which, under the County's General Plan is to provide a connection from Palani Road in the vicinity of Kealakehe Elementary School to Queen Kaahumanu Highway, probably will not be completed until the later phases of the complex.

During the first phase (1977-1981), Queen Kaahumanu Highway will be the only access route and the probable attendance is estimated to be one-half of the 1991 projection of 6,500 persons. Therefore, during this period, the traffic to the sports complex will be greater than the highway design capacity. Hence, a deceleration lane for right turns onto the collector road is recommended.

It is imperative that vehicles making left turns from the highway be channeled into a separate storage lane for safety reasons. Likewise, vehicles entering the highway should be provided with an acceleration lane. Since the present length of the present collector road is only 350 feet, the overall capacity of the access road and the collector road is dependent on the Queen Kaahumanu Highway intersection capacity. Two outbound lanes will be required to take care of the estimated traffic volume of 660 to 980 vehicles per hour during the early phase of development.

<u>Year</u>	<u>Sports Attendance*</u>	<u>Vehicles</u>	
		<u>3 persons/car</u>	<u>5 persons/car</u>
1977	2,000	677	400
1981	3,300	1,100	660
1986	4,900	1,633	980
1991	6,500	2,167	1,300

*The estimated (average) attendance for sporting events in 1977 at existing facilities in North and South Kona is 2,000. The estimated attendance at the sports complex in 1991 is 6,500. By interpolation, the estimated attendance and vehicular traffic volume for any period may be obtained.

One inbound lane along the access road is sufficient to accommodate the inbound traffic which can be expected to be spread over a wider time span. The inbound peak volume before a game will be much less than the outbound peak volume after a game. Although one lane will suffice, two inbound lanes along the collector road are recommended. The extra lane will serve as a safety feature to avoid the possibility of slow or stalled vehicles creating backup onto Queen Kaahumanu Highway. Further, when the future collector road is connected to Palani Road, a through lane and a left turn lane (to access road) for inbound traffic will be the minimum required.

The proposed roadway improvements will consist of the following:

1. Queen Kaahumanu Highway improvements at the Sports Complex collector road intersection includes the following: deceleration lane, acceleration lane, left turn storage lane, offset through lane, taper section, striping and traffic signs and street lighting system.
2. Collector road improvements include the following: two-lanes each way from the highway to the access road, median striping and traffic signs, street lighting system, water main, drainage system and landscaping.
3. Access road improvements include the following: three-lane asphaltic concrete pavement, water main, drainage system, striping, traffic signs and street lighting system.

The site will be graded in Phases I, II and III, with excavation and embankment quantities balanced to eliminate borrow and dump sites. Approximately 64,000 cubic yards of mass excavation and fill will be required.

Water demands for irrigation and human needs in the initial development will be met by connecting a 12-inch water main to the existing 16-inch water line on Queen Kaahumanu Highway. Later, after the proposed wastewater treatment facility is completed makai of Queen Kaahumanu Highway, irrigation water (136,000 gpd) is planned to be supplied by pumping the secondary treated effluent uphill to the proposed Sports Complex. The football-track and baseball field sprinkler system will retain the dual capability of utilizing either the potable water system or the treated effluent.

The wastewater treatment plant should be designed to prevent odor nuisances in contiguous areas such as the master planned resort golf course and hotels, in compliance with Public Health Regulations, Chapter 43, Air Pollution Control. The County of Hawaii is planning to acquire

the necessary land for a wastewater treatment plant makai of Queen Kaahumanu Highway. Aerobic treatment systems satisfying Public Health Regulations, Chapter 38, Sewage Treatment and Disposal Systems and cesspools will be constructed during Phase I to handle sewage generated at the Sports Complex.

Surface runoff from on-site drainage areas will be discharged by infiltration into the ground, using sumps and drywells. The site master plan allocates areas for drainage channels and a silting basin. These areas will be improved when the lands mauka of the proposed complex site are altered by urban development and overland flooding becomes a problem.

Depending on the availability of funds, the football-track and baseball stadium may be constructed in the following incremental stages:

1. Field and Utilities;
2. Locker and Change Areas;
3. Grandstand and Enclosed Facilities, and
4. Night Lighting.

The construction cost estimates of Phases I, II and III are based on 1976 costs and are presented in Tables 1, 2 and 3 extracted from, Kealakehe Regional Sports Complex, 1976, County of Hawaii, Department of Parks and Recreation. Construction of Phase I will not start in 1976, as shown on Table 1, but will probably begin some time in late 1977 or the early part of 1978.

B. PHASE II

Phase II facilities are planned to be initiated in fiscal year 1981. The gymnasium, swimming pool, martial arts annex and tennis courts comprise the major sport facilities under Phase II. Supporting utilities include underground electrical lines, water, sewer and drainage systems

with additional parking areas and roadways to be provided. The gymnasium (highest priority item in this grouping) may be constructed concurrently with or after the construction of site improvements. The swimming pool and the martial arts annex may be constructed jointly or separately. Initially, four tennis courts are to be constructed, with bleachers for approximately 200 spectators. Space will be set aside for an additional four courts when the demand warrants such expansion. The construction cost estimates of Phase II facilities based on 1976 costs are presented in Table 2.

C. PHASE III

Phase III facilities are expected to be initiated in fiscal year 1986. The concert hall, arts and craft, soccer field, equestrian ring and exhibit hall are the major sports facilities assigned for Phase III. Since this phase of improvements is scheduled in the more distant future, the order of priority of the facilities has not been established. Site improvements include underground utilities, paved parking area and access road extension. The proposed silting basin at the center of the parking core and proposed drainage channels for the complex will be constructed during this phase. The construction cost estimates of Phase III facilities are based on 1976 costs and are presented in Table 3.

TABLE 1
 KEALAKEHE REGIONAL SPORTS COMPLEX
 PHASE I - CONSTRUCTION SCHEDULES AND COSTS (DOLLARS)

Facilities	1976	1977	1978	1979	1980
1. Collector Road	15,000	135,000			
2. Access Road	15,000	135,000	118,000		
3. Mass Grading	15,000	135,000	100,000		
4. Water	5,000	55,000	20,000	22,000	125,000
5. Drainage			43,000	40,000	
6. Sewer			59,000		
7. Site Work - Baseball	18,000	168,000			
8. Site Work - Football	27,000	273,000	50,000		
9. Parking			200,000	200,000	
10. Electrical, Telephone, Lighting	5,000	45,000	150,000	55,000	
11. Structures					
a. Football			355,000	300,000	
b. Baseball			186,000	400,000	
c. Concourse					257,000
12. Night Lighting					
a. Little League					125,000
b. Official Baseball					250,000
c. Football					255,000
13. Queen Kaahumanu Highway					150,000
14. Service Road				25,000	
15. Landscaping		67,000	200,000	200,000	200,000
Subtotal	\$100,000	\$1,013,000	\$1,481,000	\$1,242,000	\$1,362,000
Inflation @ 7% Per Year			104,000	180,000	306,000
TOTAL	\$100,000	\$1,013,000	\$1,585,000	\$1,422,000	\$1,668,000

SOURCE: Kealakehe Regional Sports Complex, 1976, County of Hawaii, Department of Parks and Recreation.

TABLE 2

KEALAKEHE REGIONAL SPORTS COMPLEX
PHASE II - CONSTRUCTION SCHEDULES AND COSTS (DOLLARS)

Facilities	1981	1982	1983	1984	1985
1. Access Road	62,000				
2. Mass Grading	200,000				
3. Water	82,000				
4. Drainage	62,000				
5. Sewer	51,000				
6. Parking	200,000			148,000	
7. Electrical, Telephone, Lighting	100,000			93,000	
8. Gymnasium		1,500,000	530,000		
9. Swimming Pool			850,000	1,000,000	
10. Martial Arts				95,000	
11. Tennis					120,000
12. Archery Range					10,000
13. Footbridge	10,000				
14. Landscaping	36,000	100,000	100,000	100,000	200,000
Subtotal	803,000	1,600,000	1,480,000	1,436,000	330,000
Inflation @ 7% Per Year	250,000	645,000	742,000	870,000	237,000
TOTAL	\$1,053,000	\$2,245,000	\$2,222,000	\$2,306,000	\$567,000

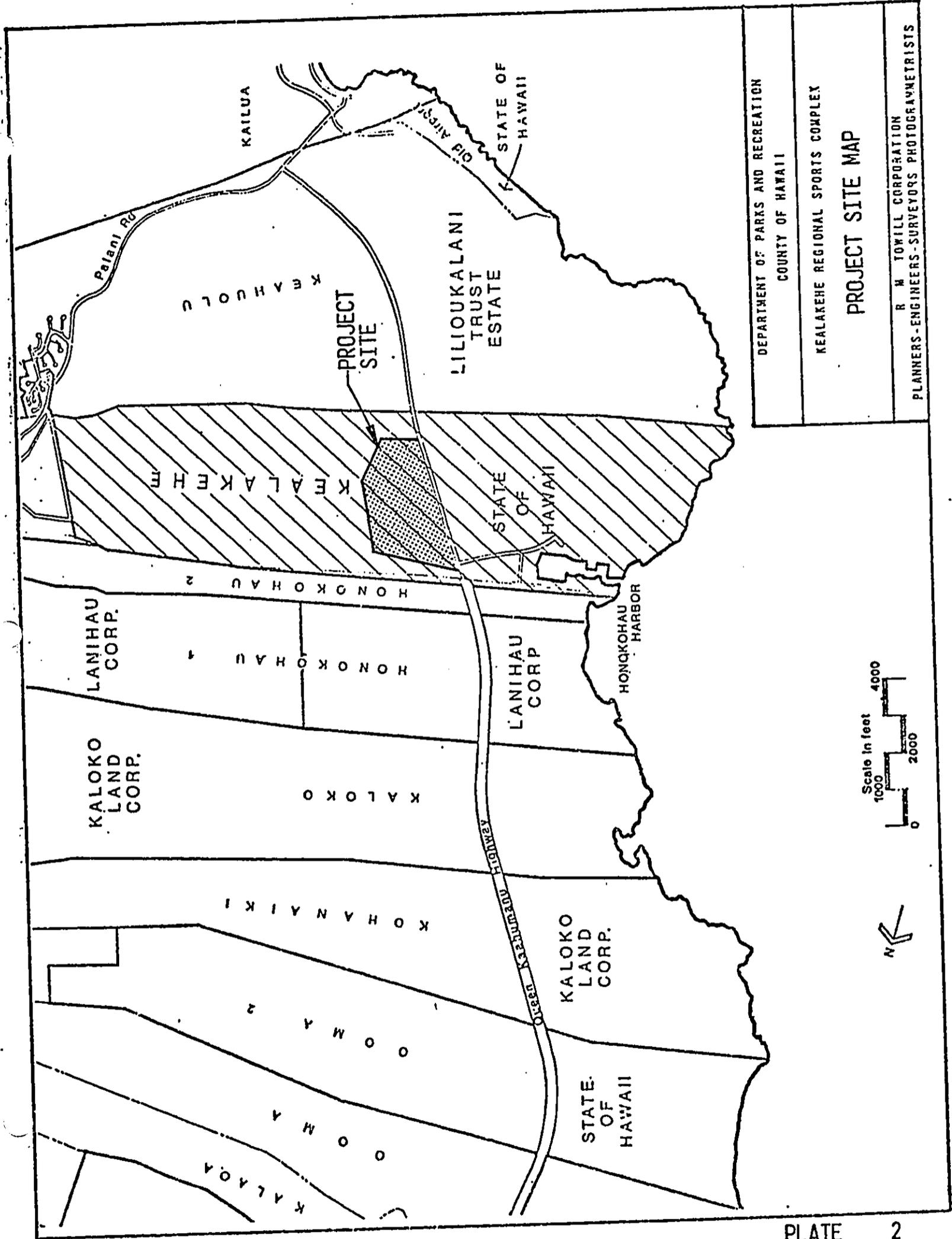
SOURCE: Kealakehe Regional Sports Complex, 1976, County of Hawaii, Department of Parks and Recreation.

TABLE 3

KEALAKEHE REGIONAL SPORTS COMPLEX
PHASE III - CONSTRUCTION SCHEDULES AND COSTS (DOLLARS)

Facilities	1986	1987	1988	1989	1990	1991
1. Access Road	138,000					124,000
2. Mass Grading	250,000					
3. Water	40,000	23,000				
4. Drainage		20,000	35,000			
5. Sewer		52,000				
6. Parking	50,000	100,000		42,000		
7. Electrical, Telephone, Lighting	20,000	60,000		40,000		
8. Concert Hall	500,000	630,000				
9. Exhibit Hall					600,000	
10. Arts and Crafts			400,000			
11. Soccer				68,000		
12. Equestrian Ring					77,000	
13. Play Fields				153,000		
14. Concrete Lined Channel				105,000		
15. Unlined Channel and Basin				216,000		
16. Landscaping	200,000	200,000	200,000	200,000	200,000	594,000
Subtotal	\$1,198,000	\$1,085,000	\$ 635,000	\$ 824,000	\$ 877,000	\$ 718,000
Inflation @ 7% Per Yr.	1,004,000	1,049,000	702,000	1,032,000	1,237,000	1,134,000
TOTAL	\$2,202,000	\$2,134,000	\$1,337,000	\$1,856,000	\$2,114,000	\$1,852,000

SOURCE: Kealakehe Regional Sports Complex, 1976, County of Hawaii, Department of Parks and Recreation.

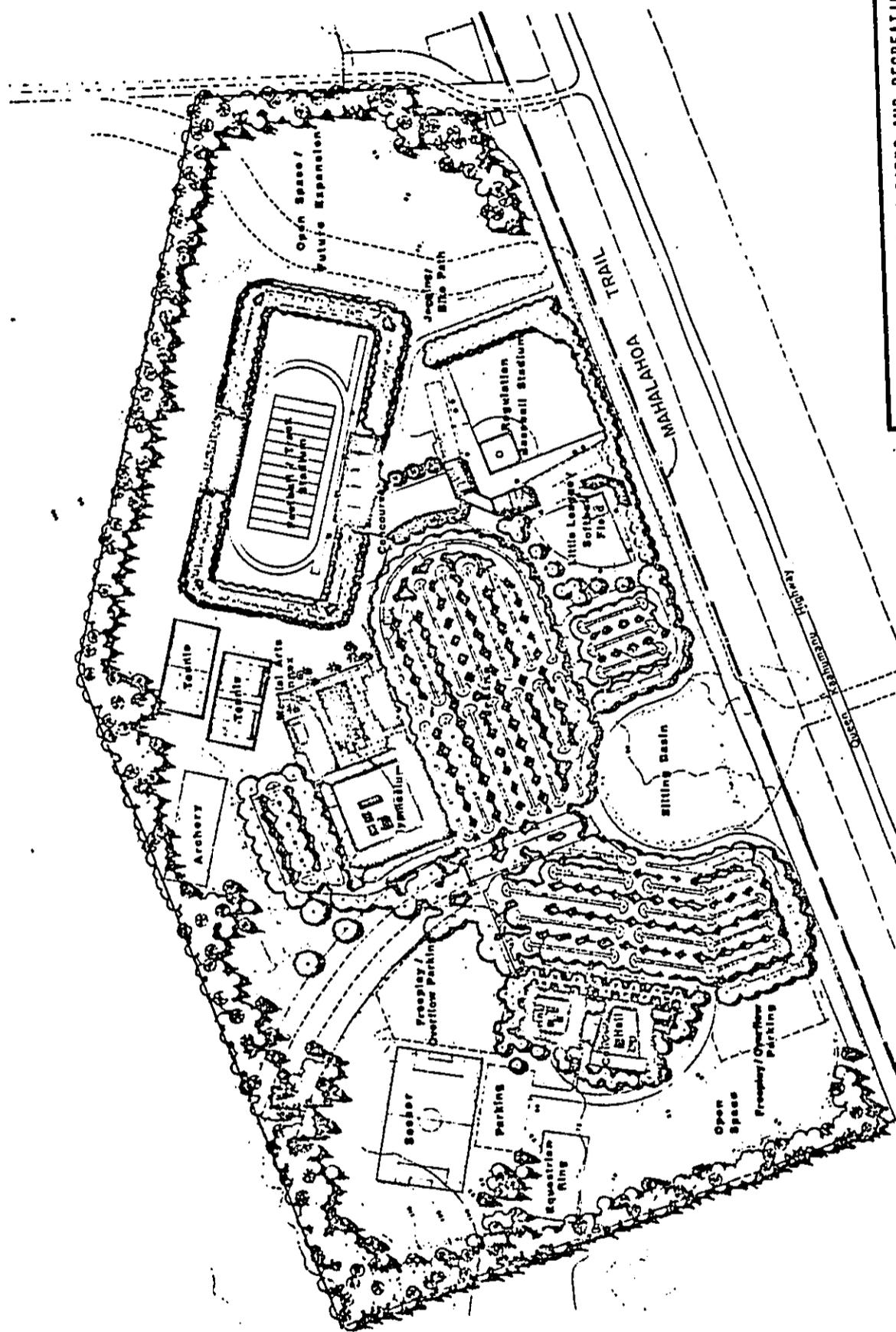


DEPARTMENT OF PARKS AND RECREATION
 COUNTY OF HAWAII

KEALAKEHE REGIONAL SPORTS COMPLEX

PROJECT SITE MAP

R. M. TOWILL CORPORATION
 PLANNERS-ENGINEERS-SURVEYORS-PHOTOGRAMMETRISTS



DEPARTMENT OF PARKS AND RECREATION
COUNTY OF HAWAII

KEALAHOE REGIONAL SPORTS COMPLEX

SITE MASTER PLAN

R. M. TOMILL CORPORATION
PLANNERS-ENGINEERS-SURVEYORS-PHOTOGRAMMETRISTS



SECTION III

DESCRIPTION OF THE ENVIRONMENTAL SETTING

A. PHYSICAL ENVIRONMENT

The proposed site for the Kealakehe Regional Sports Complex is a portion of the Ahupuaa of Kealakehe. The Kealakehe Development Plan, North Kona, Hawaii, 1968, DLNR proposes use of the site as a recreational area. Present land uses in the immediate vicinity of the site include the County's sanitary landfill and dog pound and some commercial warehousing adjacent to the south border of the Sports Complex. The site is bordered on the west by the Queen Kaahumanu Highway. The lands between Queen Kaahumanu Highway and the Honokohau Small Boat Harbor are presently unused but scheduled for urban development as part of the State's development plan for the Kealakehe lands. Phase II expansion of the boat harbor is presently under way with a third phase ultimately completing the harbor facilities. 650 acres of land makai of Queen Kaahumanu Highway (northwest of the proposed site) have been selected for the proposed Kaloko-Honokohau National Park. A quarry operation is located to the north of the project site.

1. Climate

The climate within the North Kona District is extremely mild. The average annual rainfall varies from 20 inches along the coast to more than 100 inches on the mountain slopes above the agricultural areas. Further up the slopes, the rainfall decreases to as little as 15 inches in the "saddle" area and the mountain peaks. Temperatures normally run from 67°F to 83°F with an annual average of 75°F at sea level.

The Kona coast is known for its 90-mile stretch of calm waters from Upolu Point to South Point. Due to the adjacent high mountain masses,

tradewinds are deflected, resulting in dominant sea to land or "onshore" breezes during the daytime. Offshore breezes normally occur during nighttime hours.

The Kealakehe site is sufficiently distant from convective storms to be affected by the frequent rains of the upper areas. It is relatively dry as compared to other recreational facilities in Kona. Enclosed facilities proposed under the project can be planned to take advantage of the moderate sea to land breezes as part of energy saving considerations. The sun's orientation in the morning and late afternoon hours vary from 20 degrees north to 20 degrees south of the east-west latitude line. Proper orientation of the exposed sports facilities (football field, baseball fields, tennis courts) have been considered to minimize the adverse effect of the sun on participants of the respective sports activities.

2. Topography and Geology

The North Kona District is on land formed by flows from three of the Hawaiian Islands' volcanic systems; the Hualalai Volcano, the Mauna Kea Volcano, and the Mauna Loa Volcano. The younger lava flows occurred after 1801. Most of the land north of Palani Road and makai of Mamalahoa Highway is barren lava, consisting of aa and pahoehoe lava flows. Pahoehoe lava flows have a smooth ropey surface and aa lava flows are a mass of clinkery, hard, sharp, lava fragments.

The physical makeup of Kealakehe and of the surrounding lands is predominantly prehistoric lava flows (occurring prior to 1801). These lava flows extend from the shoreline inland to a distance 1,500 feet mauka of Queen Kaahumanu Highway. The remaining land eastward (mauka) to Hualalai summit consists mainly of fragmented aa and pahoehoe

with depths less than 10 inches. The ground slope is fairly flat (varies from 0 to 5 percent) from the shoreline to a point 1,500 feet east of Queen Kaahumanu Highway. From this point to the vicinity of Palani Road at Kealakehe School, the ground slope varies from 5 to 20 percent with an average of 8.5 percent.

3. Location and Access

The Kealakehe site is located approximately 4 miles north of Kailua-Kona, the urban center of North and South Kona. It is anticipated that land development trends of this region will shift population growth in a northerly direction beyond Kealakehe. This will eventually result in Kealakehe being the centrally located major recreation area in the West Hawaii Region.

Accessibility and transportation are probably more important than a central location due to the influence these elements exert on attendance, thereby affecting the attendance and economic well-being of the Sports Complex.

Time-distance is not a major problem for residents in the region. Estimated travel times for trips from South Kona and North Kohala, the most distant districts, fall within a 1-hour to 1-1/4-hour travel time range. Long drives from as far away as Hilo are estimated to be slightly over 2 hours by way of Waimea. A new highway between Waimea and Kawaihae with the alignment approximately paralleling the existing narrow winding Waimea-Kawaihae Road will start construction some time in 1977. This new highway will provide for faster and safer driving conditions and hence add inducement for people in Kawaihae and Waimea to travel to Kealakehe. The majority of residents in the Kona area should be able to drive to the facility within a time period of 30 minutes.

Access to the site is presently provided by Queen Kaahumanu Highway. Entrance to the site from the highway is currently through an existing roadway which serves the Kailua sanitary landfill, Smythco Warehousing, HELCO substation and the dog pound. Since the Queen Kaahumanu Highway is not a Federally funded highway, additional access roads to service the sports complex may be negotiated with the State Department of Transportation. There is also a tentative proposal for a collector road connecting Queen Kaahumanu Highway with Palani Road in the vicinity of Kealakehe Elementary School. This roadway would provide direct access to the Sports Complex for persons using Mamalahoa Highway and Palani Road.

Presently people driving from South Kona will probably pass through the Palani Road/Kuakini Highway and Palani Road/Queen Kaahumanu Highway intersection. A realignment of Kuakini Highway is planned to connect to Palani Road at the Palani Road/Queen Kaahumanu Highway intersection. Construction of the realignment will begin in the early 1980's. This realignment will permit a more direct route with patrons passing straight through the Palani Road/Queen Kaahumanu intersection to the proposed Sports Complex.

Transportation in the West Hawaii area is generally limited to private automobiles. There are two County-supported bus lines in Kona. One is the Hilo-Honaunau bus line via Waimea. This line provides both inter-district and intra-island service. It has been estimated that 80 percent of all patrons on this line travel between Captain Cook and the Kailua Post Office. The second bus system, the Kona Koaster, operates within the Kona area. The Koaster primarily serves the workers as a commuter link between the subdivisions and the hotel area. Both lines have a low level of patronage.

Public transit to and from events and activities will initially be very limited, regardless of the location of the sports complex. Consequently, transportation to the complex by private automobiles will be the mode generally used.

4. Drainage

There are no defined drainageways and no record of overland flooding exists at the proposed site. The land consists predominantly of very permeable aa and pahoehoe lava flows. Although there is no evidence now of any overland flooding within Kealakehe, nor likelihood of any in the immediate future because of its geological makeup, drainageways are planned to accommodate runoff from future development of the area mauka of the proposed site. In the future when the land is altered by urban development, storm water runoff may necessitate construction of a drainage system.

5. Water

Water service for the North Kona area has a present capacity of approximately 4.0 mgd. The Kahaluu Shaft Development Project is presently under construction and when completed in 1977 will provide 6.0 mgd more to the North Kona Water System. Water service to the Kealakehe Sports Complex can be provided without overtaxing the existing 16-inch and 12-inch water transmission line along Queen Kaahumanu Highway.

6. Sewerage

A sewerage master plan for the Kailua-North Kona area is now being completed. The first phase of the proposed sewerage master plan provides for a wastewater treatment plant to be located on Kealakehe lands makai of Queen Kaahumanu Highway. The first phase will primarily serve Kailua-Kona and could service the proposed Sports Complex.

The time schedule for the initiation of Phase I of the sewerage plan has not been finalized; however, the earliest possible construction start date is in 1978.

At a later time, a second wastewater treatment plant is to be located south of Ke-ahole Airport with a collector trunk line along Queen Kaahumanu Highway.

7. Power

There is a Hawaii Electric Light Company substation immediately north of the present access road serving the Kailua Landfill. Electric power can be provided from this substation.

Gas can be made readily available at points of utilization by individual tanks, or through an underground distribution system fed from a central tank location.

8. Flora and Fauna

The proposed site is fairly typical of the leeward side of most major islands in terms of flora and fauna except that relatively recent lava flows have resulted in a less complex biota. Vegetation on the latest flows is sparse and wildlife species few. A recent flora and fauna reconnaissance survey of the site has been completed by Walker 1977.

The general topography consists of a slope area interspersed with rough aa and pahoehoe substrates. The major existing vegetation consists of exotics, dominated by koa haole (*Leucaena glauca*) and kiawe (*Prosopis pallida*), including some wilelaiki (*Schinus terebinthifolius*) and klu (*Acacia farnesiana*). The new native plants observed were noni (*Morinda citrifolia*) and kukui (*Aleurites molucana*).

Although sub-zones are of one ecological type, the study area can be divided as follows:

a. New Lava Zone

This area dominates the northwestern portion and is characterized by a fairly open aa flow, interspersed with pockets of pahoehoe and collapsed lava tubes. Vegetative growth is scattered and exists where soil has formed beneath the surface and water collects and stores. Predominant plants include caper, fountain grass, Christmas berry, and noni.

b. Old Lava Zone

Although similar to the previous zone in substrate, this type has a more extensive plant cover, primarily koa haole, with a mixture of blue morning glory, passion vine and hialoa. Fountain grass forms continuous stands. It is located in the extreme northern corner and southwestern portion of the project site.

c. Mixed Lava/Open Forest Zone

The eastern mauka portion is characterized by increased numbers of large shrubs (koa haole, alahee, Christmas berry) and trees (naio, lama) interspersed among lava ridges and outcroppings, Alahee, especially, dominates and perhaps other native species exist as well.

Most of the animals found in the study areas are common exotic species usually found in semi-arid areas or where humans have supplied a ready food supply. The introduced bird species present at the proposed site are common throughout Hawaii. They include the mynah, house finch, house sparrow, cardinal, lace-necked dove, barred dove, white-eye, and rice-bird.

Additional, more detailed, flora and fauna surveys are recommended before the actual start of construction. At this time, however, there do not appear to be any significant or unique flora and/or fauna at the site.

CORRECTION

THE PRECEDING DOCUMENT(S) HAS
BEEN REPHOTOGRAPHED TO ASSURE
LEGIBILITY
SEE FRAME(S)
IMMEDIATELY FOLLOWING

The time schedule for the initiation of Phase I of the sewerage plan has not been finalized; however, the earliest possible construction start date is in 1978.

At a later time, a second wastewater treatment plant is to be located south of Ke-ahole Airport with a collector trunk line along Queen Kaahumanu Highway.

7. Power

There is a Hawaii Electric Light Company substation immediately north of the present access road serving the Kailua Landfill. Electric power can be provided from this substation.

Gas can be made readily available at points of utilization by individual tanks, or through an underground distribution system fed from a central tank location.

8. Flora and Fauna

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9. Archaeological and/or Historical Sites

Two significant archaeological features, the Mamalahoa Trail and the Kona Field System, are in the vicinity of the proposed Sports Complex (see Plate 4). The Mamalahoa Trail is an old coastal Hawaiian trail. The sector of the trail between the proposed site and Queen Kaahumanu Highway is not pre-historic and has little historic significance.

The Kona Field System is a prehistoric modification of the land by the ancient Hawaiians for the purpose of farming. It lies primarily east of the Queen Kaahumanu Highway and will not be affected by the proposed complex. Many significant archaeological sites exist along the shoreline near Honokohau Harbor.

Three minor historic sites were located during the recent archaeological reconnaissance survey of the proposed site by the Bishop Museum. None had been recorded previously. Bishop Museum and State site numbers have been assigned.

A small collapsed lava-tube shelter is located near the northern corner of the proposed site. The opening measures approximately 2.0 meters in diameter and there is a low 0.30-meter overhang. No midden or deposit was present. Another small, collapsed lava-tube shelter is located near the above shelter. The opening measures approximately 3.0 meters in diameter, and there is a 0.4-meter overhang. Some midden and a minimal deposit (5 cm deep) were observed. These two sites are of marginal archaeological significance. Monitoring during Phase III construction activities is recommended. There is no construction planned for the specific shelter locations.

A third site, another collapsed lava-tube shelter with a blocked opening, was located about 30 meters west of the north corner

survey marker and outside of the proposed site boundary. This site would be affected only if construction activities occur beyond the boundaries indicated on the map. This site occurs outside the project area and would not be affected by construction activities.

B. SOCIAL ENVIRONMENT

1. Community Character

West Hawaii has been characterized as a place of gentle, contrasting beauty; a place for peaceful relaxation. The dry, warm coastline areas of the village settlements and beach areas contrast with the cool, wet upland areas of ranching and orchard regions. The volcanic lava flows and the colors of deep offshore water provide a further contrast for a quiet and restful atmosphere.

However, North and South Kona can now be characterized as a peaceful agricultural area undergoing a rapid transition toward urbanization. Although still basically "rural" in atmosphere, the area is experiencing a major redirection from an agricultural to a tourism economy. These changes are most evident in the immediate vicinity of the town of Kailua-Kona.

The major changes in Kona can be seen by examining the population trends. As the region rapidly developed, the major employment shifted to construction and tourism activities, and a major new population segment developed to meet the needs. Young Caucasians from the mainland have moved into Kona in large numbers. Having a large turnover rate, these recent arrivals have social attitudes and life-styles in sharp contrast to the long-term residents from the area. This segment has greatly influenced the demographic factors for the area. The result

has been an out-migration of local residents. The percentage of Caucasians in Kona has risen from 12 percent to 44 percent between the 1960 and 1970 censuses. The future trends for Kona are expected to be similar, with a decreasing rate of Caucasian in-migration. By 1990, the total population for Kona is expected to reach 18,000 persons.

Three identifiable social groups in the Kona area are the elderly, the young transients, and the low income families. Among the elderly subgroups are long-time residents, recently retired and more affluent residents, and the elderly poor. Young transients in their late teens, twenties and early thirties are drawn to the Kona area by the rural atmosphere, favorable climate and their short-time commitments to the Kona life-style. Low income families are most numerous in the rural, agricultural-based portion of the population, with a significant number of welfare recipients.

The basic community services (sewers, water, roads, schools, recreation, etc.) are supplied by the County and State governments in response to demand. Government agencies responsible for providing services to satisfy shortages in utilities (e.g., water), services (e.g., schooling, garbage collection), or facilities (e.g., public parks) are planning improvements to meet anticipated future demands.

2. Housing

Housing problems in the West Hawaii Region are typical of the entire State. There is a large surplus of high-cost land, houses and apartments. Low cost housing is in generally poor condition and short supply. Although a decrease in the construction of high cost subdivisions and housing units is expected (due to an existing oversupply), low cost housing will continue to be scarce.

The housing subdivisions around the town of Kailua-Kona have a median family average income in constant 1969 dollars of \$12,121. The remainder of North Kona's population has an income average of \$8,663 per family. A major observation is: "people living in the newer subdivision areas have higher incomes than those in more rural areas, reflecting the need to have greater amounts of money to afford the new housing."

3. Recreation

The West Hawaii area (Plate 1) includes the four districts of North Kohala, South Kohala, North Kona, and South Kona. The socio-economic structure of the area as previously mentioned has evolved from one that was primarily agricultural to one that is now principally oriented towards tourism and urbanization. As this evolution occurs, the demand and need for recreation facilities have become more acute.

The recreational acreage required to support community sports is directly related to the area's population. Projections of future populations in West Hawaii have been developed for the County of Hawaii's Recreation Plan and the Kona Community Development Plan.

The County of Hawaii's Recreation Plan defines Group II parks as consisting of regional, beach and shoreline, and general use type parks. A Regional class park is described as "A major recreation area, serving several districts and providing indoor and outdoor activities for all age groups, may include features of historic, geological and horticultural interests and serves as a major center for spectator sports and cultural activities."

Group I and Group III are other types of parks. Group I is comprised of district, community, neighborhood, playlots, facilities and school playground type parks. Group III contains of Federal and State parks.

Table 4 presents a tabulated summary of population projections by district for the West Hawaii area and the recreational acreage required for Group II type parks. The existing Group II parks total approximately 70 acres. The required need, based on the standard requirement of 10 acres per 1,000 people, is 174.8 acres for the 1975 population. This is, therefore, a present deficiency of more than 107.7 acres and, unless additional facilities are provided, this deficiency will increase to 334.4 acres by 1990.

Residents of North and South Kona are expected to use the proposed facilities on a daily basis whereas people living in the outlying sectors of the West Hawaii area will utilize the sports complex for major sports and cultural events.

Sports in the Kona area are strongly supported by an active, sports-minded community. The community's organizational structure for sports leagues is of interest. All non-school leagues in Kona are organized, with seven (7) athletic clubs as the core. The following athletic clubs sponsor teams of different age groups participating in baseball, football, basketball, and volleyball:

- Central
- Holualoa
- Honaunau
- KAC (Kailua)
- KHK (Keauhou-Honolo-Kainaliu)
- Kona Keys
- Pirates (Captain Cook)

Two additional clubs involved in sport activities are the Kona Racquet Club and the Kai-o-Pua Canoe Club.

The following is a summary of sports activity in North and South Kona during the 1974-1975 fiscal year. As indicated, the list is impressive for the modest Kona population.

<u>LEAGUE</u>	<u>NO. OF TEAMS</u>	<u>NO. OF GAMES</u>
Baseball:		
T-Ball for Boys and Girls	6	30
P/R Minor for Boys and Girls	5	22
P/R Major for Boys and Girls	5	22
Softball:		
Elementary - Girls	4	6
Intermediate - Girls	4	6
Makule	6	32
Class "B" - Men	8	58
Class "B" - Women	5	22
Basketball:		
10-year - Boys and Girls	5	13
12-year - Boys and Girls	6	18
14-year - Boys and Girls	7	31
Students - Boys	6	18
Class "B" - Men	8	32
Volleyball:		
Women League	8	32
Men League	7	25

Tournaments and other activities include the following:

T-Ball/All County Tournament

Major League - All County Baseball Tournament

Class "B" Men Softball - Northern Divisional Tournament for Men
and Women

Volleyball - Northern Divisional Tournament for Men and Women

Divisional Age-Group Basketball Tournament

All-County Basketball Tournament

Divisional Student's Basketball Tournament

All-County Elementary and Intermediate Girls Softball Tournament

Divisional Exponent Track and Field Meet

Divisional Age-Group Track and Field Meet

All-County Age-Group Track and Field Meet

Porta Pool Program - 5 Kona Schools and Kona Kraft

District PPK Contest (Punt-Pass-Kick)

All-County PPK Contest (Punt-Pass-Kick)

All-County Free-Throw Basketball Contest

The following is a summary of the needs for additional recreation facilities to support West Hawaii sport activities:

1. Baseball/Softball

The most obvious problem appears to be the lack of adequate baseball/softball facilities. According to the Department of Parks and Recreation's Annual Report for 1974-1975, there was a total of 198 games played by 43 teams in 8 assorted participating leagues, including the 10 games Konawaena High School hosts annually. Baseball games were held at Greenwell Field, Holualoa School, former Keauhou School field, Konawaena High School, and Hillcrest Park. Additional ballfields (2) have been provided at the recently completed Kailua Park and an additional ballfield is under construction at Keauhou Park.

While a number of fields appear to be available, scheduling and climate problems hamper their use. Konawaena High School field is primarily used for its own teams; consequently, community teams must relinquish game times in deference to the high school schedule. Greenwell Park and Holualoa Field are the only fields equipped with lights for night games; however, due to their high elevation, night and late afternoon games are occasionally rained out or played in a drizzle. This poses a special problem to the Makule and businessmen leagues whose players can participate only in the evenings.

2. Basketball

There are five basketball leagues in Kona with a total of 32 teams who played 112 games last year. All games are played at Konawaena gymnasium and are subject to schedules that are structured to times when the high school is not using the facility. Konawaena High School annually hosts 10-12 games, depending on preseason scheduling. There is also a problem of practice space with a limited number of basketball courts available at Kailua Playground, Greenwell Park and Holualoa School.

3. Football and Track

There are two Pop Warner teams in Kona in addition to the Konawaena High School football teams. Including the junior varsity team, there are approximately 10 home games played annually at Konawaena. Approximately 5 Pop Warner games are also held annually. Konawaena High School has the only football/track field in the Kona area. Seating capacity is limited and access is congested when prime sports activities are held at the school.

4. Volleyball

There are two volleyball leagues in Kona with 15 teams that played 77 games in the 1974 season. Teams from Konawaena High School

(boys and girls) played a combined total of 16 games. All games were played at Konawaena High School. The need for additional volleyball facilities is expected to increase with increased population. Facilities will therefore be provided in the Phase II construction.

5. Tennis

Organized tennis in Kona centers around the Kona Racquet Club. There are approximately 50 members in the Club and their activities are held at the Kona Surf Hotel.

There are three public tennis courts in Kona, one each at the following locations: Greenwell Park, Kailua Playground, and Konawaena High School. There are six new tennis courts planned for Kona; four at Kailua Park and one each at Keauhou Park and Holualoa Community Center. Additional courts are available at the resort hotels (Keauhou Beach Hotel, Kona Lagoon Hotel and Kona Surf) where court fees are charged. Additional facilities are planned for the Phase II and III construction.

C. ECONOMIC ENVIRONMENT

1. West Hawaii Industries

West Hawaii presently has three basic industries--tourism, construction, and agriculture.

a. Tourism

Tourism is presently the dominant industry in West Hawaii and has the greatest potential for the future. The construction and retailing industries are closely linked to tourism. Expenditures by visitors are a substantial sum annually. For example, of the estimated 1,332,000 County visitors expected in 1975, approximately 746,000 (56%) were expected to visit Kona. The estimated expenditure in the State of Hawaii was approximately \$384 per visitor in 1974. Based on the previously

mentioned figures, Kona's revenue from this single source amounted to about 286 million dollars in 1975. This revenue is projected to rise to about 369 million dollars in 1990 using the same expenditure per visitor. These figures are only the expenditures by visitors and not the related revenue resulting from the supporting construction and other employment. The number of hotel employees in Kona is expected to increase from 1,220 in 1975 to 1,835 in 1990. Construction will also be affected. Hotel units are expected to increase from 2,070 in 1975 to 2,520 in 1980 and to 3,400 in 1990, despite a current excess supply. Although the visitor count in the County of Hawaii was up 2.8 percent over the first nine months of the year 1975 - to 587,000 versus 581,000 in the same 1974 period - and the average length of stay rose fractionally, the hotel occupancy was a low 60.8 percent (60.5 percent in Hilo, and 61 percent in Kona). Seventy percent is estimated as a rough break-even point for an established hotel. The drop in occupancy was a result of a large room surplus, brought about by a heavy building program, especially in Kona, over the past several years.

Major tourism facilities are not located in North Kohala, although the area does contain many natural and historical attractions conducive to the development of tourist related facilities. There are many residents of this district who work in the adjoining district of South Kohala. There are several sites in this district with the potential of becoming small resort areas. The Mahukona and Kohala mountain areas have been identified in the 1963 Kohala-Hamakua Plan as possible resort areas.

The Mauna Kea Beach Hotel, which began operations in 1965, opened the door to the resort development of South Kohala. The

areas which surround proposed developments have attractions for tourists and residents alike. Hunting on the slopes of Mauna Kea and the Kohala mountains, deep sea fishing, hiking trails, historic sites, sandy beaches and a diversity of climate are some of these attractions. There is a considerable amount of investor interest in South Kohala. Rockefeller's resort plans call for the eventual construction of some 2,000 hotel rooms. Further south along the coast, Boise Cascade has begun site work on another large resort-residential development. There are several factors, however, which constrain growth. One of the most critical is labor supply. Existing developments have virtually exhausted the labor supply in the surrounding areas. Within the district housing has been extremely scarce.

Kawaihae Harbor is the only deep water port on the West Coast of the island. The Kawaihae small boat harbor, when completed, will add to the inventory of amenities in the district. This facility will enhance recreational and commercial sport fishing. Inter-island jets land at the Waimea-Kohala Airport in Waimea and at Ke-ahole Airport, north of Kealahou.

b. Agriculture

West Hawaii's agricultural efforts cover a wide variety of crops due to the unique climatic conditions, elevations, and soils of the district. Despite Kona's favorable conditions, factors such as Hawaii's relatively small population, distance from markets, and the cost of production, including labor, have made many agricultural crops unprofitable. Of 8,500 acres of land available for cultivation, only 4,000 are being used. Local consumption offers a limited market. The most important crop, coffee, produces \$1,545,000 annually, 48 percent of the total revenue produced by Kona's agriculture. The coffee

industry has been on a continuing decline since 1957-58 when a peak of 18,496,000 pounds valued at \$6,548,000 was produced. The forecasts indicate a continued long-term decline. However, the international economic situation has recently made the coffee industry much more promising. In fact, this season's coffee production and earnings are expected to be the highest recorded for a long time. Other promising crops are macadamia nuts and avocados. Macadamia nut production rose 14 percent in fiscal year 1975. By 1985 macadamia production in Kona is forecasted to be worth about 12.5 million dollars. In 1973, \$3,201,000 of income was acquired through agriculture in Kona. By 1980, this figure is expected to rise to about 8.6 million dollars and by 1985 to 18.4 million dollars--keeping in mind the possibility of drastic revisions, upward or downward, as international market conditions change.

Sugar, cattle, and macadamia nuts are the major agricultural products in North Kohala. Truck crops are grown on small acreages. The Kohala Sugar Company was the major source of income and employment for this district. During 1968, this firm had 564 employees and an annual payroll of \$3.9 million. Prior to the mergers of C. Brewer's plantations on the Hamakua coast which formed the Mauna Kea Sugar Company and the Pepeekeo Sugar Company, the Kohala Sugar Company was the largest sugar planter and producer on the Big Island. The Kohala Sugar Company has phased out its sugar operations. Slightly over 500 employees were directly affected by this action. Support services both within and outside the North Kohala district were affected. Kohala Sugar Company officials, people of the district, and governmental agencies have begun studying alternative forms of economic activity.

The cattle industry which utilizes the bulk of the land area is the second most important source of income for the area. The

largest tracts of grazing land extend from the top of the Kohala mountains to the seashore.

There are several hundred acres of macadamia nuts in the area. Most of the acreage is owned by Castle and Cooke which transports the nuts to their own plant in Keaau for processing.

In South Kohala the cattle ranching industry utilizes most of the land area, and pastures are found from the higher slopes of the mountains down to the seashore. Parker Ranch, one of the largest privately owned ranches in the world, has its headquarters in Waimea. In its entirety, this ranch has a total of 227,000 acres, which includes acreage in the districts of Hamakua and North Kohala. As of January 1970, the ranch had 48,523 head of cattle. Other ranches located in this district vary in size of herds and land areas. The cattle industry utilizes feed lot operations. This technique opens the door for the expansion of the cattle industry and feed crops. Tracts of corn and sorghum are now being grown for silage.

Waimea is one of the most productive areas for vegetable crops on the Big Island. Cabbages, celery, lettuce, daikon (turnip), peppers, broccoli and carrots are grown here. Experiments are being conducted on different crops as well as on the improvement of those presently grown. The agricultural industry, especially truck farms, has the potential for further expansion. This industry, faced with competition for resources from tourism and other urban forces, is receiving governmental assistance.

c. Construction

The construction industry is strongly interrelated with tourism and other businesses. It is difficult to put a monetary value

on construction in terms of the amount of non-construction jobs it provides and the amount of tourists it attracts. Hotel, housing, road and off-site construction are continuously in progress to keep up with the increasing demands exerted by tourists and residents. As noted above, hotel units in Kona are expected to increase from the 2,070 in 1975 to 2,520 in 1980 to 3,400 in 1990. Office floor space in the district is projected to increase from 65,000 square feet in 1975 to 93,000 square feet in 1980 to 121,500 square feet in 1990. Housing demands are expected to increase as the population increases. Multi-unit housing is expected to increase by 240-270 units from 1975-1980, by 300-350 units from 1980-1985, and by 170 units from 1985-1990. Single family units are expected to increase by 790-880 units from 1975-1980, by 875-1,025 units from 1980-1985, and by 510 units from 1985-1990. The jobs generated through construction and their effects on the varying retailing businesses will definitely be significant. More people in Kona were related to the construction industry than any other industry in 1970 and their average annual income received was also the highest. In 1970, earnings by employees of the construction industry totaled approximately \$9,000,000. The current surplus of hotel rooms and condominiums has limited further construction until occupancy rates increase substantially. According to building permit figures, the first three quarters of 1975 produced private projects worth \$26 million, down 50 percent from \$52 million logged at the same time the previous year. State and County funded projects increased 92.4 percent, to \$16.5 million, from the first three quarters of 1974 to the same time in 1975. Nevertheless, total building permit valuations for 1975's first nine months still dropped 30 percent from \$60.7 million to \$42.6 million from the same time in 1974.

d. Retailing and Personal Services

The level of retail and personal services in Kailua-Kona is rapidly expanding and is expected to continue to be in excess of demand. In 1975, 530,000 square feet of retail floor space were available. By 1990, this is expected to increase to 1,200,000 square feet. The level of restaurant, retail and personal services available in the Kona area is very high in relationship to the resident population. These services are maintained by the tourism industry at a level which a normal non-tourism community could not support.

2. Work Force Characteristics

The West Hawaii economy relies on the three industries discussed above: tourism, agriculture, and construction. All other occupations are directly or indirectly related to these industries. Recent employment trends are:

- a. A decrease in agriculture and farm work paralleling the long-term decline of the local coffee industry.
- b. An increase in construction industry employment from 1960 to 1970, but a significant decrease over the past year.
- c. A work force increase in North Kona by 25 percent in 1970 over 1960.

TABLE 4

DISTRICT POPULATION PROJECTIONS AND RECREATIONAL ACREAGE
FOR THE WEST HAWAII REGION

1. Population

<u>Districts</u>	<u>Population</u>				
	<u>1972</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
North Kohala	3,326	3,350	3,400	3,600	3,780
South Kohala	2,310	3,500	6,940	9,500	13,900
North Kona	4,832	6,400	9,800	13,150	17,200
South Kona	<u>4,004</u>	<u>4,230</u>	<u>4,600</u>	<u>5,150</u>	<u>5,700</u>
TOTAL	14,472	17,480	24,740	31,400	40,580

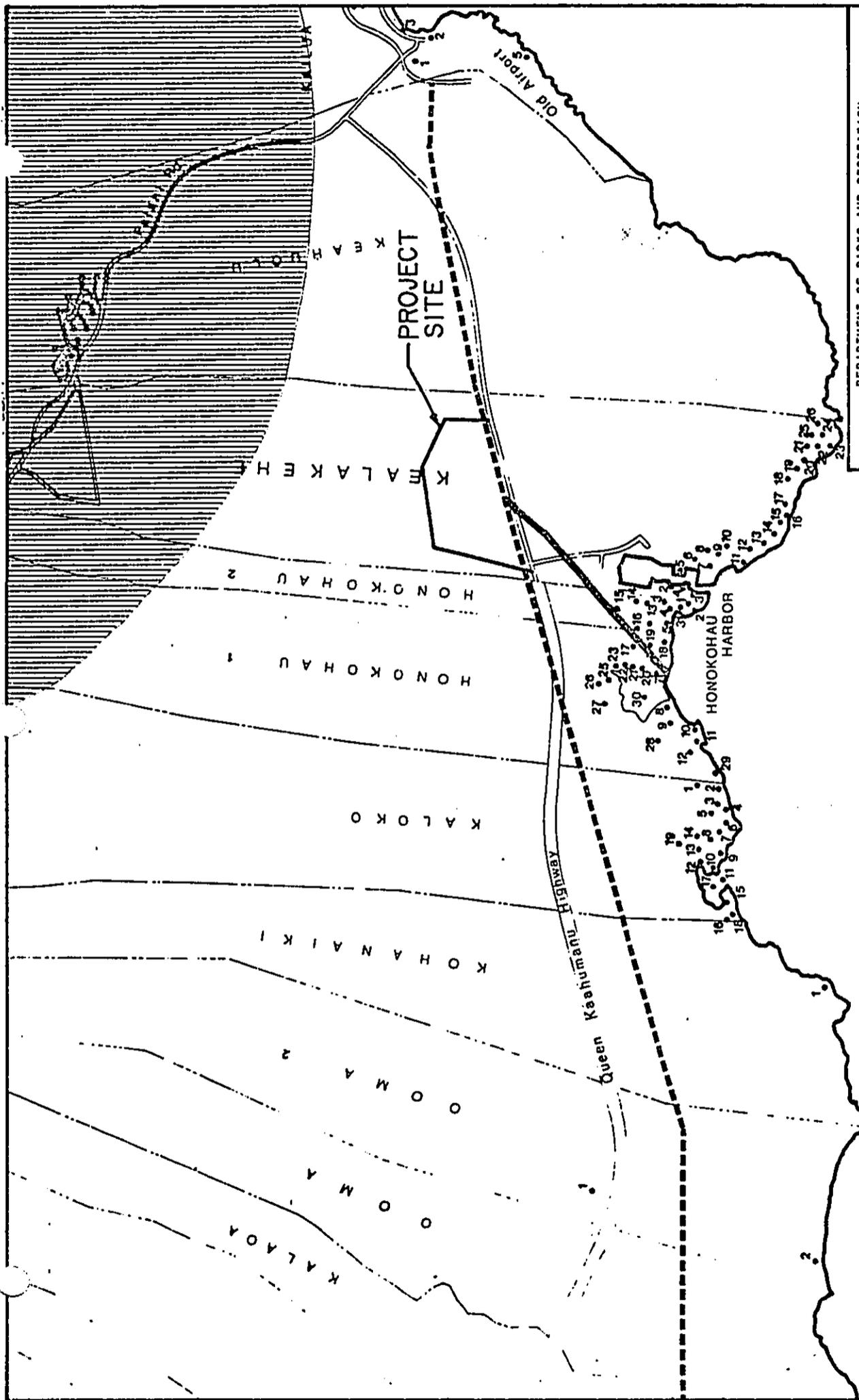
2. Total Acreage Required to Support Recreational Needs

<u>Districts</u>	<u>Projected Acreage Needs</u>				
	<u>1972</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
Group II (10AC/ 1000)					
N. Kohala	33.3	33.5	34.0	36.0	37.8
S. Kohala	23.1	35.0	69.4	95.0	139.0
N. Kona	48.3	64.0	98.0	131.5	172.0
S. Kona	<u>40.0</u>	<u>42.3</u>	<u>46.0</u>	<u>51.5</u>	<u>57.0</u>
TOTAL	144.7	174.8	247.4	314.0	405.8

3. Additional Acreage Required Over that Existing

<u>Districts</u>	<u>Additional Acreage Required</u>				
	<u>1972</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>
Group II (10AC/ 1000)					
N. Kohala	--	--	--	--	--
S. Kohala	9.7	21.6	56.0	81.6	125.6
N. Kona	38.6	54.4	88.4	122.0	162.4
S. Kona	<u>29.4</u>	<u>31.7</u>	<u>35.4</u>	<u>41.0</u>	<u>46.4</u>
TOTAL	77.7	107.7	179.8	424.4	334.4

SOURCE OF DATA: County of Hawaii: Recreation Plan



DEPARTMENT OF PARKS AND RECREATION
 COUNTY OF HAWAII

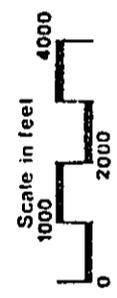
KEALAKEHE REGIONAL SPORTS COMPLEX

ARCHAEOLOGICAL MAP

R. W. TOWILL CORPORATION
 PLANNERS ENGINEERS SURVEYORS PHOTOGRAMMETRISTS

Legend

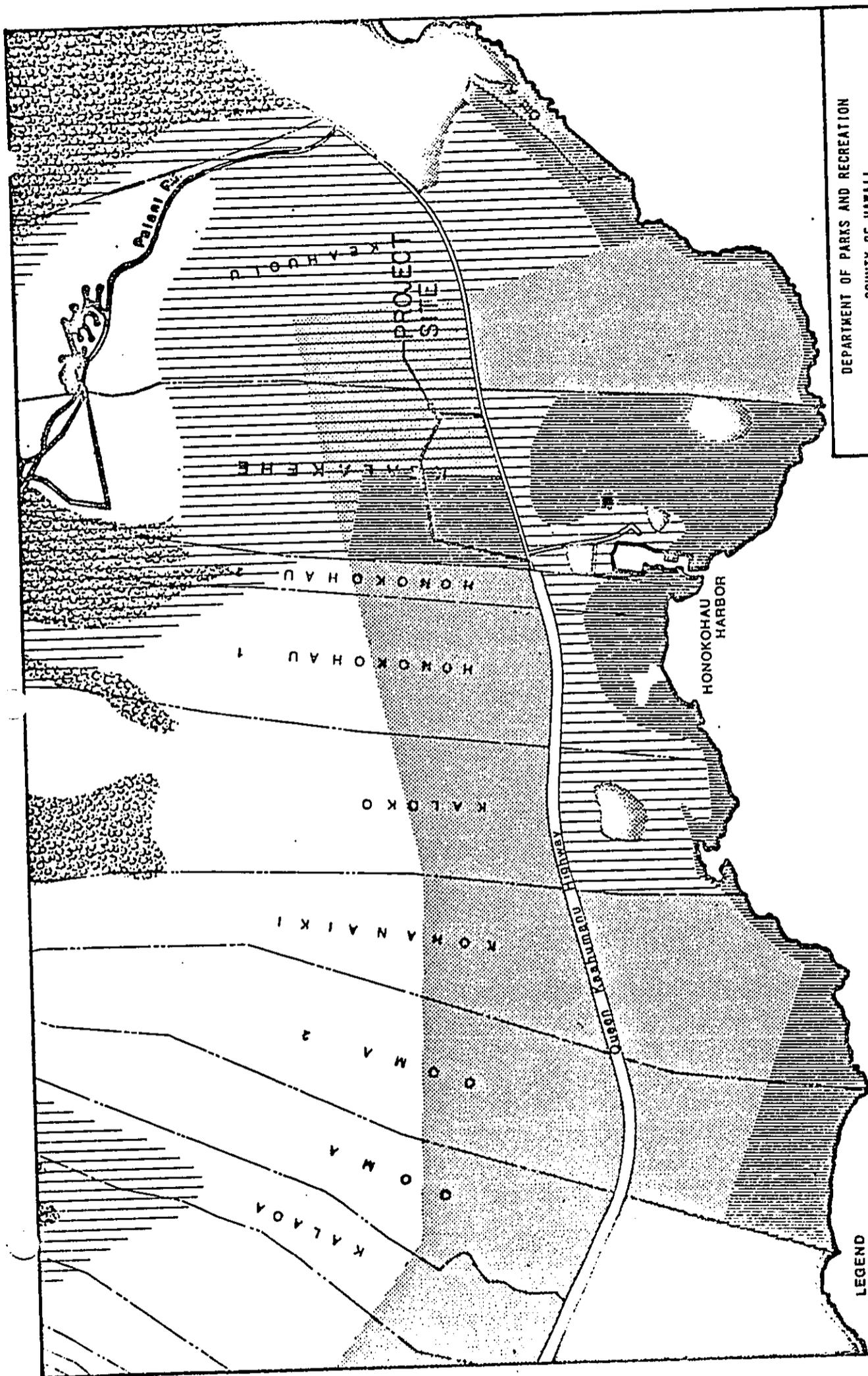
- Kona Field System
- Mamalahoa Trail
- Trail



SECTION IV

RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS FOR THE AFFECTED AREA

The State-owned Kealakehe lands are presently conservation-zoned and under the administration of the State's Department of Land and Natural Resources. Use of lands in conservation districts must conform to Regulation 4 which sets the policies and guidelines for such districts. The County of Hawaii's General Plan's Land Use Designation for the Kealakehe site is Open Area, Conservation, and Alternate Urban Expansion (see Plate 6). The proposed Sports Complex conforms to the present zoning and land use plans at the proposed site.



DEPARTMENT OF PARKS AND RECREATION
COUNTY OF HAWAII

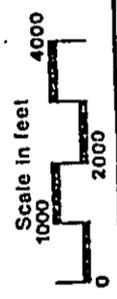
KEALEHE REGIONAL SPORTS COMPLEX

GENERAL LAND USE MAP

R. M. TOWILL CORPORATION
PLANNERS ENGINEERS SURVEYORS PHOTOGRAMMETRISTS

LEGEND

- Industrial
- Resort
- Orchards
- Open Area
- Conservation
- Extensive Agriculture
- Medium Density Residential
- Low Density Residential
- Alternate Urban Expansion



SECTION V

PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

A. PRIMARY IMPACTS

1. Impacts on Physical Environment

a. Traffic

Until the proposed collector road connecting Queen Kaahumanu Highway with Palani Road is constructed, the only access to the proposed site will be from the two-lane Queen Kaahumanu Highway. Queen Kaahumanu intersects Palani Road southwest of the proposed site. Traffic destined for the Sports Complex along Palani Road will require a 90 degree turn at the Palani Road/Queen Kaahumanu intersection.

Patrons travelling north on Palani Road towards the Palani Road/Queen Kaahumanu intersection must pass through the stretch of Palani Road servicing a shopping center and bank, and the Palani Road/Kuakini Highway intersection. It is reported by the Hawaii County Traffic Engineer that some traffic congestion exists between the Palani Road/Kuakini intersection to the Palani Road/Queen Kaahumanu intersection.

The two-lane Queen Kaahumanu Highway is planned for future widening although no time schedule is presently available. Improvements at the intersection of the proposed collector road and Queen Kaahumanu Highway include a deceleration lane, acceleration lane, left turn storage lane, offset through lane and taper section. These proposed improvements are anticipated to lessen the impact of congestion due to turning movements into the collector road servicing the proposed Sports Complex.

The proposed Kuakini Highway Realignment is planned for construction some time in the early 1980's and will connect to Palani Road at the Palani Road/Queen Kaahumanu intersection. This realignment of

Kuakini Highway is expected to alleviate much of the problem on Palani Road by providing a means for through traffic to by-pass the stretch of Palani Road fronting the existing shopping center.

The Sports Complex, which will probably be under construction in late 1977 or early 1978, is not expected to generate traffic volume that would add excessively to the traffic on Palani Road since major sporting events will be conducted during off-peak traffic hours. Although there are events planned for afternoon play, traffic is expected to be heaviest after the completion of the events since patrons will tend to leave the proposed complex within a relatively shorter span of time and this will probably occur again after peak traffic hours.

b. Drainage

As previously stated, there are no records of overland flow at the proposed project site, but, as the area mauka of the site is developed, it is anticipated that a drainage system will be constructed, discharging flood waters onto the proposed sports complex site. If and when this condition occurs, portions of the site are master planned to convey these flows through the project site, concentrating the flow and passing the flood waters under Queen Kaahumanu Highway to the area makai of the highway. This concentrated discharge, unless channelized to the ocean, will present a problem downstream from the highway.

c. Water

The proposed Sports Complex will first use the potable water system along Queen Kaahumanu Highway, but, after the wastewater treatment plant is completed, effluent water from the plant will be used for irrigation.

The now Kahaluu shaft wells are expected to be completed around mid 1977. With this additional water source there will be no problem supplying the Sports Complex with necessary water until connections can eventually be made to the proposed aerated lagoon.

The proposed wastewater treatment plant makai of the Sports Complex will include secondary type treatment facilities. The capability of switching from the plant effluent to the potable water system will be maintained.

d. Sewers

The proposed use of aerobic treatment systems and cesspools for the interim period until the collector sewer main is installed on Queen Kaahumanu Highway has been approved by the State Health Department. No adverse impact upon the environment is expected.

e. Flora and Fauna

A certain small amount of natural vegetation will be destroyed, however, the environmental effects are expected to be minimal. Possible bird nesting areas will be reduced and some animal habitats will be lost due to site development, but this will have a minimal impact due to the small number of birds of each species known to be present in this zone and the availability of other open land nearby.

f. Archaeology

The archaeological impact of the construction of the proposed Sports Complex upon the Mamalahoa trail is believed insignificant. Widening the existing collector road will affect the trail but, since it is discontinuous at this point, the impact will be negligible. The Mamalahoa Trail which runs parallel and between Queen Kaahumanu Highway and the site boundary line (see Plate 3) will maintain its existing continuity (see p. XIII-1).

All other archaeological sites located within or close to the boundaries of the proposed development will not be affected by construction or operation of the complex. This includes the proposed 650-acre Kaloko Honokohau National Park that is to be located makai of Queen Kaahumanu Highway and northwest of the proposed project site.

g. Air Quality

Construction activities are expected to have some local and temporary adverse effects on air quality. Dust may be generated by construction activities, however, due to the lack of any nearby residential or commercial areas and the requirements of the contractor to suppress dust generation, it should not be a problem. Exhaust fumes from construction equipment should not create any significant problem.

Facility operations after completion of construction will have negligible effects on ambient air quality. Also, auto emissions from cars of patrons using the Sports Complex will have little effect on air quality.

In order to evaluate whether auto emissions will be a problem, carbon monoxide (CO) concentrations for the year 1991 were predicted at two locations where air pollution might be a problem. The method used for estimating carbon monoxide concentrations is outlined in Guidelines For Air Quality Maintenance Planning and Analysis Volume 9: Evaluating Indirect Sources, EPA 450/4-75-001, Jan. 1975, and was used for two receptor sites. One of them was 60 meters east of Queen Kaahumanu Highway and the other 15 meters north of the proposed collector road near the collector road/Queen Kaahumanu intersection. Estimated CO concentrations for each receptor site were predicted to be 90 percent and 75 percent, respectively, below the National Ambient Air Quality Standards for 1-hour CO concentration (40 mg/m^3), when the entire complex is completed and peak traffic occurs. The estimated CO

concentration at 60 meters east of Queen Kaahumanu Highway is 60 percent below the Hawaii 1 hour standard of 10 mg/m^3 . At 15 meters north of the proposed collector road, the estimate suggests that the Hawaii standard will be approached under worst case meteorology.

h. Noise

Sources of noise emissions resulting directly from this project will be due to construction operations and sporting events.

Construction noises will be unavoidable but temporary. Inconveniences will be minimized by scheduling heavy construction during daylight hours. Conventional construction equipment will be used.

Spectator noises are not expected to create a problem due to planned buffer zones between the athletic facilities and the proposed site boundaries.

i. Aesthetics

The Sports Complex structures will be visually intrusive compared to the existing conditions on the site. This aesthetic impact will be controlled by low profile structures and extensive landscaping.

2. Social Impacts

The design of this project is in keeping with the recommendations of the Kona Community Development Plan. No adverse social impacts are foreseen. The proposed facilities will provide the means for recreation and many positive social interactions for the patrons using the Sports Complex in passive and active pursuits.

3. Economic Impacts

Economic impact on the community is not expected to be significant except for the construction related industries. Tourism, agriculture, and the retail sectors of the economy will experience only minor

beneficial effects from the proposed complex. Possible impacts on various industries are discussed in more detail below.

a. Tourism

Tourism, presently Kona's largest economic industry, will benefit to some degree from the proposed Sports Complex. After completion, the complex is expected to attract tourists visiting West Hawaii. Many of the hotels have self-contained recreational facilities but it is believed that major sporting events at the complex will attract tourist spectators.

b. Agriculture

The economic impact on agriculture will be negligible since the zoning of the proposed site is presently open area, and the nature of the proposed development will have no impact upon present or future agricultural production.

c. Retail

Retail sales volume is expected to increase for goods related to construction, sports and cultural activities.

d. Construction

Development of the proposed sports complex will provide local contractors and workers with additional employment opportunities and construction material suppliers should experience increased sales during the extended building period.

e. Employment

Once completed, the Sports Complex will require operations and maintenance personnel. The percentage of workers employed at the Sports Complex will be small in relation to the total work force of West Hawaii, but steady employment will be available for the few jobs created.

f. Operation and Maintenance

The total development and maintenance costs will be considerably beyond the present financial capability of the County. The total estimated cost of construction of improvements for the entire sports complex to year 1991 is \$25.6 million, based on 1976 construction costs. The annual operation and maintenance expenses are estimated to be approximately \$83,300 in Phase I, \$179,500 in Phase II and \$270,000 in Phase III.

The projected population for the West Hawaii region does not indicate an attendance level that will produce sufficient revenues to offset maintenance costs; therefore, monies need to be included in the County's operating budget to offset this cost. The estimated total income derived from building rentals, concessions, parking and equipment rental range from \$65,000 to \$118,000 for the complete (Phase I, II, & III) complex. The amounts needed from the County operating budget would vary between \$205,000 to \$160,000 per year.

B. SECONDARY IMPACTS

The major objective for the proposed Kealahou Sports Complex is to provide West Hawaii with recreational facilities for the present and future residents of the area. The resulting added employment opportunities of the proposed development will indirectly stimulate some minor growth in the population in West Hawaii. The proposed complex will have little secondary effect upon the resource base, utilities, land use and public services.

SECTION VI

UNAVOIDABLE ADVERSE EFFECTS AND MITIGATION MEASURES TO MINIMIZE SUCH IMPACTS

Since the proposed Kealakehe Regional Sports Complex site is presently in a natural state and untouched by development, an unavoidable visual impact will result. Cuts and fills, roads, parking lots, and structures may detract from the naturally scenic quality of the countryside, but any adverse impacts from these improvements can be mitigated by compensating consideration of aesthetic factors in design and in the landscaping of the site. Planned mitigation measures to enhance the visual and aesthetic impacts include:

1. Construction of color-coordinated structures with continuity of design.
2. Landscaping around structures, parking lots and access roads.
3. Underground utilities to avoid a cluttered appearance.

Dust resulting from construction activity may also be a problem. However, this problem will be minimized by dust suppressive methods. Specific control methods include, where applicable, sprinkling, limiting areas of operation, and even restricting construction activity during extremely dry or windy weather conditions. These and other appropriate methods of dust control will be detailed in the construction specifications. The requirements relating to fugitive dust controls in Chapter 43, Air Pollution Control, Public Health Regulations, Department of Health, State of Hawaii, will be satisfied. Traffic problems at the Queen Kaahumanu intersection will require special attention initially, by police control during peak traffic periods.

SECTION VII

ALTERNATIVES TO THE PROPOSED ACTION

A. NO ACTION

A regional Sports Complex for West Hawaii will help alleviate the deficiency and growing demand in Group II recreational facilities. The present inventory of parks and playgrounds is insufficient to satisfy current demand. The County of Hawaii's General Plan and Recreation Plan and the Kona Community Development Plan propose development of new parks and expanding and improving current facilities. Should the Sports Complex not be built, the recreational facilities recommended in the above plans, would not be provided and the number of recreational facilities would remain inadequate to meet the planned needs of the local residents.

B. ALTERNATIVE SITE TO THE PROPOSED KEALAKEHE SITE

The County of Hawaii has conducted an in-house site plan study and has determined that the proposed Kealakehe site best fits the requirements for a regional Sports Complex. A primary consideration is that candidate sites be government-owned and available to Hawaii County, to eliminate costly land acquisition expenditure. Other desired features of possible sites include the following:

1. Central location to future development of West Hawaii.
2. Accessible by adequate highways.
3. Good topography.
4. Adequate size.
5. Dry climate, mild winds.
6. Available utilities.

The old Kona Airport (Kailua Park) has been studied as a possible alternative to Kealakehe for the proposed regional Sports Complex site.

This site is government-owned but presently planned for development as a State park. Hawaii County temporarily leases 14 acres of the site and has constructed baseball, tennis, picnic, camping and indoor recreation facilities. Salient characteristics, relative to locating a Sports Complex at the site are as follows:

1. The site will not be available to the County in the near future because of the planned State park.
2. The site is centrally located.
3. Access to the old Airport site is limited from Palani Road (2 lanes) and Kaiwi Street (2 lanes), which is on a temporary permit from the State Highways Division.
4. The topography is low and flat requiring fill to construct structures above possible tsunami wave inundation.
5. The acreage (119 acres) is adequate but the configuration is long and narrow and not conducive to the functions of a major sports complex.
6. The climate is relatively dry.
7. The activities of a Sports Complex are not compatible with the wide variety of ocean-oriented activities and proposed resort developments of the area. The structures would intrude upon the natural shoreline environment.

Environmental impacts resulting from development of a Sports Complex at the old Kailua Airport will differ from those previously discussed for the proposed Kealakehe site. Siting problems peculiar to such a shoreline location include:

1. Early development of a more expensive sewerage system since cesspools would degrade the quality of the Class AA shoreline waters.

2. Consideration of the tsunami hazards in designs to protect users of the complex.

3. Construction of a new connecting road to the Queen Kaahumanu Highway to handle the increased traffic demand.

C. ALTERNATIVES TO THE PROPOSED PHASING

Priorities for all of the proposed facilities were established by considering the recommendations of the Citizen's Advisory Committee, monetary availability and planning/engineering grouping concepts. For example, the gymnasium, martial arts annex, swimming pool and tennis courts in Phase II have lower priority than those facilities selected for construction in Phase I. Limited funding has forced the phased construction throughout the period to the year 1991.

SECTION VIII

THE RELATIONSHIP BETWEEN SHORT-TERM USES OF THE ENVIRONMENT
AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Development of the proposed Kealahou Regional Sports Complex will incur negligible short-term environmental losses compared with the potential long-term gains. One of the short-term losses includes some loss of wildlife habitats and vegetation. This loss of natural environment is offset by the long-term enhancement of the physical health and recreation of present and future generations of West Hawaii residents. The proposed sports complex will also offer leisure time opportunities contributing to the physical and psychological vitalization, and educational edification of the people of West Hawaii.

SECTION IX

IRREVERSIBLE AND IRRETRIEVABLE
COMMITMENTS OF RESOURCES

Construction of the proposed Kealakehe Regional Sports Complex will irreversibly commit 100+ acres of undisturbed land to the development. This action also commits the necessary resources of manpower, energy, materials and monies essential to the completion of the complex.

SECTION X

INTERESTS AND CONSIDERATIONS OF GOVERNMENTAL POLICIES OFFSETTING THE ADVERSE EFFECTS OF THE PROPOSED ACTION

The socio-economic and recreational well-being of the West Hawaii region has been of much concern to all levels of community and government agencies. This concern has been evident in the many studies and proposals devoted to this area of the County. The County of Hawaii has prepared several key policy documents which affect the West Hawaii area. They are discussed briefly below.

A. THE COUNTY OF HAWAII GENERAL PLAN

The General Plan for the County of Hawaii is the policy document for the long-range comprehensive development of the Island of Hawaii. The General Plan was adopted by the County Council in 1971 as Ordinance Number 439. As a policy document, the General Plan provides the legal basis for subdivision, zoning and related ordinances. It also provides the legal basis for the initiation and authorization for all public improvements and projects. The General Plan's planning process is broken down into twelve study elements, each with Goals, Policies and Standards Sections, and specified courses of action for each district in the County. Under the Courses of Action for North Kona, the General Plan recommends the development of the old Kona Airport or Honokohau as a major regional park.

B. THE COUNTY OF HAWAII RECREATION PLAN

The County's Recreation Plan, prepared in 1974, basically conforms to the policies of the County's General Plan and the recommendations of the "State Comprehensive Outdoor Recreation Plan" of 1971.

The Recreation Plan defines the recreation demands of each district in the County and lists them by priority. The priority listing is to be

used as a guideline in the development of the Capital Improvement Program budget.

Additionally, the Recreation Plan analyzed the adequacy of current parks, and notes that there is a deficiency of parks in both North and South Kona. It states, "... presently, there is a deficiency in recreation parks acreage, and that additional parks and/or playgrounds need to be developed, thus supporting the community's demand for more."

Accordingly, the County's Recreation Plan has determined the following for the West Hawaii districts of North and South Kona.

1. North Kona

"The demand preferences for recreational development in North Kona as indicated by the types of proposals generated from various community inputs are as follows:

- a. Incrementally develop immediate facility and park needs for both inland and shoreline areas, to include both passive and active pursuits.
- b. Establish shoreline reserves, historic preservation areas, natural area reserves and public rights-of-ways to recreation areas.
- c. Provide additional structured recreation programs with supporting personnel.
- d. Provide improvements to existing parks and facilities.
- e. Initiate program analysis of potential future recreation areas to determine feasibility of acquisition and development.

The Recreation Plan states that total acreage for active recreation is inadequate for the district; a fact which has been reflected by projected needs determined from standards as well as from expressions of the community.

2. South Kona

Proposals for the South Kona recreational development were limited to immediate neighborhood needs. Passive recreation developments were also covered and were oriented mainly towards shoreline areas. The trend of preferred development expressed by proposals generated by the community are as follows:

"a. Implement major new development proposals to satisfy immediate demands.

b. Expand existing parks to include additional facilities to meet local demand.

c. Provide improvements to existing parks and facilities.

d. Investigate feasibility of establishing and acquiring designated sites for recreation use or preservation purposes."

The following comments were made in the plan concerning the regional recreation complex.

"a. Group I park (active park under County jurisdiction).

b. Regional classification.

c. Plans and incremental development of a multi-use athletic complex to include ballfields, track and football arena, recreation building/gymnasium and olympic size swimming pool, with adequate parking and supporting facilities.

d. Origin (of project proposal) ... community need, general plan proposal, growth projections, existing C.I.P.'s.

e. High priority.

f. Incremental development with ballfields to be developed first. Recreation building should be designed to double as a civic auditorium."

C. KONA COMMUNITY DEVELOPMENT PLAN

The 1975 Kona Community Development Plan, prepared for the Planning Department, County of Hawaii, includes a regional recreation center in Kealakehe. The report, as yet unreleased by the County, states that the Center "should have highest financial priority. It is of top priority because the area presently lacks any recreational area and is presently, and will continue to be, the fastest growing area in Kona." The development plan also provides for a collector road between Queen Kaahumanu Highway and Palani Road.

Both the County Recreation Plan and the Kona Community Development Plan provide for a high school to be located in Kealakehe. There has been no indication by the Department of Education concerning this site; however, several factors would favor this location for such a choice.

1. Location close to a sports facility would be highly favorable for high school joint use.
2. An elementary school is also located in Kealakehe.
3. The State of Hawaii owns Kealakehe lands.
4. Kealakehe appears to be centrally located in terms of West Hawaii's future growth pattern.
5. The terrain close to the proposed sports complex is favorable.
6. Queen Kaahumanu-Palani collector road proposals are favorable.

SECTION XI

AGENCIES CONSULTED IN THE PREPARATION OF
THE ENVIRONMENTAL IMPACT STATEMENT

The agencies consulted in the preparation of the Environmental
Impact Statement are as follows:

A. FEDERAL

Agricultural Stabilization and Conservation Service,
U. S. Department of Agriculture

Soil Conservation Service,
U. S. Department of Agriculture

Forest Service,
U. S. Department of Agriculture

Director, Office of Environmental Project Review,
U. S. Department of the Interior

Department of Housing and Urban Development

Department of Health, Education and Welfare

Environmental Protection Agency

Advisory Council on Historic Preservation
Attn: Mr. Robert Garvey, Executive Director

Department of Commerce
Attn: Dr. Sydney R. Galler, Deputy Assistant

U. S. Army Corps of Engineers

B. STATE OF HAWAII

Department of Agriculture

Department of Accounting and General Services

Department of Defense

Department of Education

Department of Health

Department of Land and Natural Resources

Department of Planning and Economic Development

Department of Social Services and Housing

Environmental Quality Commission
Office of Environmental Quality Control
Department of Budget & Finance
Department of Transportation
Transportation Advisory Commission
Attn: Mr. Kazuto Takayama

C. COUNTY OF HAWAII

County Council
County of Hawaii

Department of Planning
Attn: Mr. Raymond Suefuji

Department of Public Works
Attn: Mr. Edward Harada

Department of Parks and Recreation
Attn: Mr. Milton Hakoda

Department of Water Supply
Attn: Mr. Akira Fujimoto

Department of Research and Development
Attn: Mr. Clarence Garcia

D. PUBLIC UTILITIES

Hawaiian Telephone Company

Hawaii Electric Light Co., Inc.

Gasco, Inc., Hawaii Division

E. PRIVATE

Kona Outdoor Circle
President - Peal Rein
c/o Ron Burla & Associates
P. O. Box 1148
Kailua-Kona, Hawaii 96740

Kona Civic Club
c/o Rufus Spalding
Kailua-Kona, Hawaii 96740

Ms. Clara Kahumoku
Hawaiian Civic Club
RR #1, Box 201B
Kailua-Kona, Hawaii 96740

Mr. Claude Onizuko
Kona Jaycees
c/o Kona Credit Union
Kailua-Kona, Hawaii 96740

Mr. Jim Potter
West Hawaii Committee
P. O. Box 1761
Kailua-Kona, Hawaii 96740

Mr. Pete L'Orange, Chairman
Kona Soil and Water Conservation District
RR #1, Box 519
Capt. Cook, Hawaii 96704

Ms. Virginia Isbell
Kona Citizens Planning Council
Box 926
Kealahou, Hawaii 96750

Mr. W. J. Paris, Jr.
Cattlemen's Association
Kealahou, Hawaii 96750

Ms. Jenny Paris
Life of the Land
General Delivery
Pahoa, Hawaii 96778

Mr. Joe Tassil
Organizations Kona
RR #1, Box 249-B
Holualoa, Hawaii 96725

Mr. Dave Walker
Kona Board of Realtors
c/o McCormack Realty
P. O. Box 1360
Kailua-Kona, Hawaii 96740

Mr. Ken Michael, President
Kona Chamber of Commerce
P. O. Box 635
Kailua-Kona, Hawaii 96740

Mr. Fred Honda, President
Kona Hotel Managers Association
Keauhou Beach Hotel
Keauhou, Kona, Hawaii 96740

Kona Traffic Committee
c/o Joseph Bottero
Kailua-Kona, Hawaii 96740

William Hale
Kona Conservation Group
RR #1, Box 125
Captain Cook, Hawaii 96704

William Thompson
Hawaii Leeward Planning Conference
P. O. Box 635
Kailua-Kona Hawaii 96740

SECTION XII

COMMENTS AND RESPONSES MADE DURING THE
CONSULTATION PROCESS

The letters included in this Section are the comments and subsequent responses pertaining to the EIS Preparation Notice and the EIS. Those letters dated March 4, 1977 and earlier are comments and responses pertinent to the Preparation Notice. The letters in the second half of the section, dated after March 4, 1977, are those relating to the EIS.



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

P. O. BOX 1020

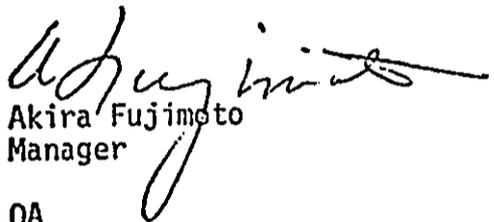
HILO, HAWAII 96720

25 AUPUNI STREET

January 4, 1977

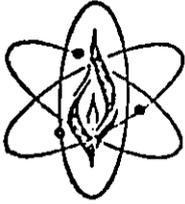
TO: Department of Parks and Recreation
FROM: Department of Water Supply
SUBJECT: KEALAKEHE REGIONAL SPORTS COMPLEX
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

We have no adverse comments or objections to the Environmental Impact Statement Preparation Notice for the subject project. However, it should be noted that water service will be available on a limited scale until such time that the Kahaluu Shaft project is completed.


Akira Fujimoto
Manager

QA

... Water brings progress...



GASCO, INC.

A PACIFIC RESOURCE, INC. COMPANY
HAWAII DIVISION / P.O. BOX 1397
HILO, HAWAII 96720

EDWARD Y. HASHIMOTO
BRANCH MANAGER, HAWAII

January 4, 1977

Mr. Milton Hakoda, Director
Dept of Parks and Recreation
County of Hawaii
Hilo, Hawaii

Subject: Kealahou Regional Sports Complex
EIS preparation Notice

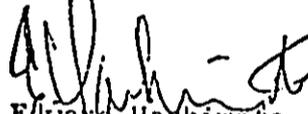
Dear Mr. Hakoda:

Section III, Summary Description of the Affected Environ-
ment, fails to mention that GAS can be made readily available
at points of utilization by individual tanks, or through an
underground distribution system fed from a central tank location.

Thank you for allowing us the opportunity to review the
EIS preparation statement.

Very truly yours,

GASCO INC.


Edward Hashimoto
Manager

March 4, 1977

Mr. Edward Hashimoto
Manager
GASCO, Inc.
Hawaii Division
P. O. Box 1397
Hilo, Hawaii 86720.

Dear Mr. Hashimoto:

SUBJECT: Response to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/4/77

Regarding your comments concerning the EIS Notice of Preparation,
the availability of GAS has now been included in the Environmental Impact
Statement.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/52

MEMORANDUM:

PLANNING DEPARTMENT — County of Hawaii, Hilo, Hawaii 96720

To: Director, Parks & Recreation

Date: January 5, 1977

From: Planning Director

Subject: Kealahou Regional Sports Complex
EIS Preparation Notice

Thank you for the opportunity to review the latest draft of the above. Some of our earlier comments (memo of September 28, 1976) have been incorporated; however, others have not. We would like to reiterate first those which appear to have been overlooked.

1. The feasibility of temporary cesspools should be confirmed with the Department of Health and the County Bureau of Sewers and Sanitation. Should such use be deemed acceptable, the impact on ground and coastal waters must also be assessed. The volume of sewage effluent which will be required for on-site irrigation should also be addressed.
2. Only one alternative -- the old Kailua Airport site -- is discussed. It is dismissed, however, with only negative aspects being presented. The EIS should present an objective overview; the positive aspects should also be discussed. As stated in our earlier memo, the reduction and/or combination of facilities should be discussed as alternatives.

In addition, we have the following comments:

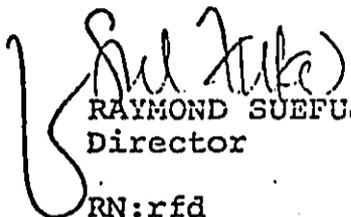
1. Prior to obtaining an Executive Order (EO), the site must be subdivided.
2. Drainage structures are being proposed by the designation of a drainage easement. Should the land be transferred by EO, such a designation is not necessary. More detailed analogies should be presented to establish the size of drainage structural requirements.
3. An archaeological/historic survey should be conducted to establish firmly the status of sites on the desired parcel.
4. Traffic data should be presented and analyzed. In addition to the potential bottleneck at the Queen Kaahumanu intersection at the site, the potential congestions at the Palani Road/Queen Kaahumanu Highway and the Palani Road/Kuakini Highway intersections should also be addressed. Traffic engineers at both the County and State levels should be consulted.
5. In discussing the potential growth of the area, it may be appropriate to include maps illustrating current zoning and the County's General Plan designations.

Director, Parks & Recreation

Page 2

January 5, 1977.

6. "Approximately 64,000 cubic yards of mass excavation and fill will be required." Discussion of burrow sites as well as where excavated material will be deposited should be included in the EIS. Also, the EIS should mention the necessity for obtaining a grading permit.


RAYMOND SUEFUJI
Director

RN:rfd

March 4, 1977

Mr. Raymond Suefuji
Director
Planning Department
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Suefuji:

SUBJECT: Responses to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/5/77

The following responses are addressed to your letter of comments on the EIS Notice of Preparation.

1. A letter has been sent to the Department of Health and approval granted in the use of temporary cesspools. The impact on ground and coastal waters has been assessed and the effect was determined to be negligible. The volume of sewage effluent from the proposed WWTP for irrigation is mentioned in the EIS and is expected to be approximately 136,000 gpd.
2. The old Kailua Airport is discussed more thoroughly in the Environmental Impact Statement. The reduction and/or combination of facilities is not considered as alternatives because the basic concept when developing the site master plan was to plan for maximum development within the allocated space and costs for each facility. The order of construction of these difference facilities is based on priorities determined from public input. The grouping of facilities for Phases I, II and III as presented in the master plan is a provisional construction schedule. The final construction sequence of facilities will ultimately be governed by available funds and population growth demands.
3. A subdivision map has been prepared by R. M. Towill Corporation.
4. A detailed drainage study has been prepared with drainage structural requirements for the proposed site.
5. The Bernice P. Bishop Museum has completed a survey establishing the archaeological/historic status of the proposed site.

March 4, 1977

-2-

Mr. Raymond Suefuji

6. Discussion of traffic has been included in the EIS.
7. A General Land Use Map is now presented in the EIS, but, since all of the proposed site is presently zoned "conservation," mention is made of the site's classification in the body of the EIS.
8. It is not expected that borrow sites will be required. The grading concept will try to balance fills with on-site excavated material.

The requirement for a grading permit is discussed in the EIS.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/53,53A

DEPARTMENT OF PUBLIC WORKS
COUNTY OF HAWAII
HILO, HAWAII

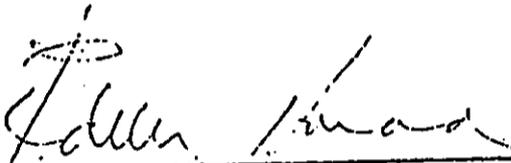
Date January 7, 1977

MEMORANDUM

TO: Parks & Recreation
FROM: Chief Engineer
SUBJECT: Kealahou Regional Sports Complex
Environmental Impact Statement Preparation Notice

Thank you for your December 28, 1976 letter transmitting the subject notice for our review and comments.

We have reviewed the notice and have no comments to offer.



EDWARD HARADA, Chief Engineer



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

10 JAN 1977

HIENG

Milton T. Hakoda, Director
Department of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

SUBJECT: Kealahou Regional Sports Complex, Kona, Hawaii
Environmental Impact Statement Preparation Notice

Thank you for sending us a copy of the Kealahou Regional Sports Complex, Kona, Hawaii Environmental Impact Statement Preparation Notice. We have received the publication and have no comments to offer.

Yours truly,


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

HAWAII ELECTRIC LIGHT COMPANY, INC.
P. O. BOX 1027 HILO, HAWAII-96720



77-12-1C

January 12, 1977

County of Hawaii
Department of Parks & Recreation
25 Aupuni Street
Hilo, Hawaii 96720

Attention: Mr. Milton T. Hakoda
Director

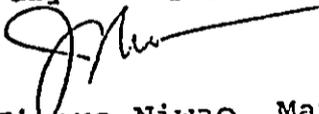
Subject: Kealakehe Regional Sports Complex, Kona, Hawaii
Environmental Impact Statement Preparation Notice

Gentlemen:

Reference is made to your letter of December 28, 1976.

We note that on the plan titled Construction Phasing that our electrical substation is located in the middle of the proposed driveway. We are very concerned because we have pole lines running along the side of the old rubbish dump road and also underground cables from the poles to the substation.

Very truly yours,


Jitsuo Niwao, Manager
Engineering Department

JN:bk

March 4, 1977

Mr. Jitsuo Niwao
Manager
Engineering Department
Hawaii Electric Light Co., Inc.
P. O. Box 1027
Hilo, Hawaii 96720

Dear Mr. Niwao:

SUBJECT: Response to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/12/77

In response to subject letter, the proposed collector road will be located south of your electrical substation. Locations of all existing utilities will be determined during the design phase of the proposed recreational complex for areas affected by the proposed improvement. Necessary steps will be taken to insure that Hawaii Electric Light Company reviews and approves plans of the proposed action.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/57

GEORGE R. ARIYOSHI
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P) 1017.7

JAN 13 1977

Mr. Milton Hakoda
Director
Department of Parks & Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

Subject: Environmental Impact Statement
Preparation Notice
Kealakehe Regional Sports Complex

Thank you for the opportunity to review the subject document. Since the subject notice discusses school facilities, we would like to point out that the Department of Education has proposed additional playground facilities at Kealakehe Elementary and Intermediate School and Konawaena High and Elementary School. In addition, we are currently selecting a new elementary school site in the Kailua-Keauhou vicinity for the Department of Education.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Rikio Nishioka".

RIKIO NISHIOKA
State Public Works Engineer

HS:iy

March 4, 1977

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting
and General Services
Division of Public Works
State of Hawaii
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

SUBJECT: Response to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/13/77

Receipt of your letter regarding the proposed project is
acknowledged. Your comments have been considered in the develop-
ment of the EIS.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/58

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

January 13, 1977

Mr. Milton T. Hakoda
Director, Department of Parks
and Recreation
County of Hawaii
25 Aupuni St.
Hilo, Hawaii 96720

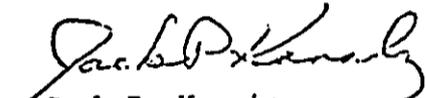
Dear Mr. Hakoda:

Subject: Keelakehe Regional Sports Complex, Kona, Hawaii
Environmental Impact Statement Preparation Notice

We have reviewed the above-mentioned document and have no comments
to offer.

Thank you for the opportunity to review this document.

Sincerely,


Jack P. Kanalz
State Conservationist





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

January 14, 1977

Ref. No. 2758

Mr. Milton T. Hakoda, Director
Department of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

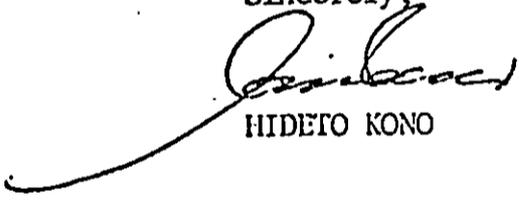
Subject: Kealahoe Regional Sports Complex, Kona, Hawaii
Environmental Impact Statement Preparation Notice

We have reviewed the subject EIS Preparation Notice and wish to offer the following comments, at this time.

1. In general, the document seems to acknowledge the important environmental impacts which could be anticipated to result from the proposed action.
2. In view of the possible impacts of the proposed action upon the two important archaeological features in the vicinity of the site, Mamalahoa Trail and the Kona Field System, we suggest that coordination be established with the State Historical Preservation Officer, Department of Land and Natural Resources.

We appreciate the opportunity to review and comment upon this EIS Preparation Notice.

Sincerely,


HIDETO KONO

March 4, 1977

Mr. Hideto Kono
Department of Planning
and Economic Development
State of Hawaii
P. O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Kono:

SUBJECT: Responses to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/14/77

In response to your letter, coordination has been established with the State Historical Preservation Officer through our subconsultant, the Bernice P. Bishop Museum, to establish status of the archaeological features in the vicinity of the proposed project site. Discussion of the impacts on archaeological sites are discussed in the EIS.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/60

GEORGE R. ARIYOSHI
GOVERNOR



JOHN FARIAS, JR.
CHAIRMAN, BOARD OF AGRICULTURE

YUKIO KITAGAWA
DEPUTY TO THE CHAIRMAN

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

January 14, 1977 .

MEMORANDUM

To: Mr. Milton T. Hakoda, Director
Hawaii County Department of Parks & Recreation

Subject: Kealakehe Regional Sports Complex, Kona, Hawaii
EIS Preparation Notice

The Department of Agriculture has no comments on the
subject notice of preparation.

Thank you for the opportunity to comment.

A handwritten signature in cursive script, appearing to read "John Farias, Jr.".

JOHN FARIAS, JR.
Chairman, Board of Agriculture



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
AREA OFFICE

1000 BISHOP STREET, P.O. BOX 3377
HONOLULU, HAWAII 96813

January 17, 1977

REGION IX
450 Golden Gate Avenue
P.O. Box 36003
San Francisco, California 94102

IN REPLY REFER TO:
9.7F (Johnson/
546-5554)

Mr. Milton T. Hakoda
Director, Department of Parks
and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

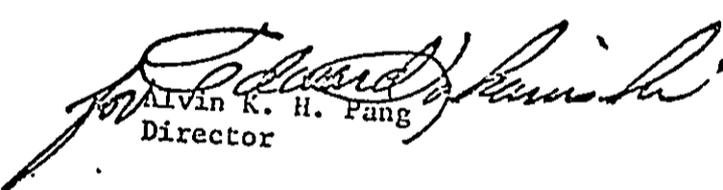
Dear Mr. Hakoda:

Subject: Kealahou Regional Sports Complex
Kona, Hawaii
EIS Preparation Notice

The EIS Preparation Notice for the subject project has been reviewed by this office and found to cover the significant issues associated with a regional sports complex.

The Honolulu Area Office supports the concept of the Regional Sports Complex and looks forward to receiving the Draft and Final EIS.

Sincerely,


Alvin K. H. Pang
Director



DEPARTMENT OF THE ARMY
HONOLULU DISTRICT, CORPS OF ENGINEERS
BLDG. 230, FT. SHAFTER
APO SAN FRANCISCO 96358

PODED-P

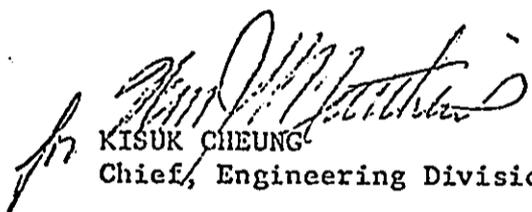
19 January 1977

Mr. Milton T. Hakoda, Director
Department of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

We have reviewed your Environmental Impact Statement Preparation Notice for the proposed Kealakehe Regional Sports Complex, Kona, Hawaii, as requested in your letter of 28 December 1976. We have no comments to make at this time, but wish to thank you for the opportunity to review the notice.

Sincerely yours,


KISUK CHEUNG
Chief, Engineering Division



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 HIGASHIMONNA
DOUGLAS S. SAKAMOTO
CHARLES O. SWANSON

IN REPLY REFER TO:

STP 8.4062

January 20, 1977

Mr. Milton Hakoda, Director
Department of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

SUBJECT: KEALAKEHE REGIONAL SPORTS COMPLEX, KONA, HAWAII
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE

Thank you very much for the opportunity to review the above-captioned statement. In reviewing your document, we made reference to:

Planning Study: "Kealakehe Regional Sports Complex," R. M. Towill Corp., 1976

Master Plan: "County of Hawaii Recreation Plan," Aotani & Associates, 1973

General Conditions and Need

The proposed development is referred to as a "Regional" facility whose size is based upon a standard of 10 acres per 1,000 population. However, our study of above referenced documents indicates that the facility should more properly be classified as a "District Park" in accordance with the standards set forth in the Recreation Plan. Note the following statement from the Towill planning study: "Time-distance travel convenience is a factor affecting the residents of the outlying districts of North and South Kohala. Consequently, the primary patronage of the complex will be from the residents of the Kona area." And this statement from the Notice: "Residents of North and South Kona are expected to use the proposed facility on a daily basis whereas people living in the outlying sectors of the West Hawaii area will utilize the sports complex only for major sports and cultural events." Such usage by residents of Kohala can be expected to be minimal because of travel time and distance involved. Under the "District" classification the area need would be only 5 acres per 1,000 population.

Whether the projected need is based on 5 or 10 acres per 1,000 population, there are serious discrepancies in the EIS notice. On page II-1 of the Notice it states "The existing sports facilities (presumably for the West Hawaii area) total 73.43 acres." The Towill Study, page 17, contains a detail inventory of recreation facilities in North and South Kona which total 186.5 acres, and this

Mr. Milton Hakoda
Page 2
January 20, 1977

STP 8.4062

inventory omits numerous other existing facilities in Kona: the County's Kahaluu Beach park (4.2 ac.), facilities at Kealakehe, Honaunau, Hookena and Alae Schools, the State's Keauhou Bay, Kailua Pier, Honaunau Bay launching ramp, Honokohau Small Boat Harbor, etc.

This glaring discrepancy casts serious doubt over the validity of figures for additional required recreational acreage given on page II-8 of the Notice. If the Towill figure of 186.5 acres of existing facilities is accepted, this is ample acreage to satisfy the needs for North and South Kona through 1985 at 10 acres per 1,000 population, and ample through 1990 at 5 acres per 1,000 population. Detailed analysis of the figures in the second and third table on page II-8 discloses further discrepancies.

Archeological and/or Historical Sites

No mention is made of the Kaloko-Honokohau Complex for which National Park status has been proposed, or of possible impacts on this significant complex.

Alternatives

An alternative which is not discussed is the provision of specific recreational facilities at various different sites throughout the area, rather than trying to centralize all facilities in one massive complex.

Long-Term Environmental Impacts - Economic Environment

The Statement says: "The total development and maintenance cost will be considerably beyond the present financial capability of the County." How then does the County propose to fund the project, and what will be the long-term financial impacts of such funding?

It should be noted that the annual operation and maintenance expenses for each successive phase are additive - i.e., at the completion of Phase II the O & M cost will be \$83,300 + \$95,800 = \$179,100, and at the completion of Phase III the O & M cost will be \$270,100 per year. Further checking these estimated costs in the Towill study shows them to be seriously underestimated. Other costs for construction also appear to be seriously underestimated. For example, the cost to improve and channelize the intersection at the Queen Kaahumanu Highway is given as \$150,000 - our experience is that this cost would be at least double.

Agencies to be Consulted

The Transportation Advisory Commission is listed under County agencies - this should be corrected as this commission is a State agency.

Mr. Milton Hakoda
Page 3
January 20, 1977

STP 8.4062

There should be a discussion of how the proposed complex will fit into the overall development plan for Kealakehe.

Sincerely,

E. Alvey Wright
E. ALVEY WRIGHT
Director

March 4, 1977

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

Dear Mr. Wright:

SUBJECT: Responses to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/20/77

The following responses are addressed to your letter of comments on the EIS Notice of Preparation.

1. The description of a Regional Park as published in the County of Hawaii, Recreation Plan, does not specify usage amounts by outlying area residents in classifying a facility as a regional park.
2. The total acreage given in the Notice of Preparation is of Group II parks. The listing in the Kealakehe Regional Sports Complex study, page 17 is a random inventory of Group I, II and III type parks. Comparisons on Table 1, page II-8 of the Notice of Preparation, are based only on Group II acreages since Kealakehe Regional Sports Complex is under the Group II parks classification.
3. Discussion on Kaloko-Honokohau Complex is now presented in the EIS.
4. A site selection and priority of activity facility study has been conducted by the County of Hawaii with input from public hearings. A Regional Park is determined to be what is needed for the West Hawaii area based on public opinion and the deficiency of Group II acreage.
5. Construction of facilities will be conducted as funds become available to the County of Hawaii from whatever means appropriate. Careful planning is to be incorporated in the expenditure of monies to eliminate overspending and causing a large budgetary deficit. If State funds are used, as the County of Hawaii anticipates, long-term impacts could probably mean higher taxes for the citizens of the State of Hawaii.

Mr. E. Alvey Wright

-2-

March 4, 1977

6. The transportation Advisory Commission is now listed as a State agency in the EIS.
7. Discussion is now included in the EIS on how the proposed Sports Complex fits into the overall Kealakehe development plan, as outlined in Kealakehe Development Plant, North Kona, Hawaii, 1968 DLNR.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/64,65

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809
January 31, 1977

CHRISTOPHER COBB, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

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

Honorable Milton T. Hakoda
Dept. of Parks and Recreation
25 Aupuni St.
Hilo, HI 96720

Dear Sir:

We have reviewed the EIS preparation notice for the Kealakehe Regional Sports Complex.

Section V, Part A should address other feasible measures for avoiding or mitigating disruption of the Mamalohoa Trail. For the larger project area, a reconnaissance survey should be conducted to identify other archaeological resources which may be affected. We can comment more fully on this point upon receipt of the draft EIS.

All in all, the project description is adequate, however, additional details are needed before the full impact of the project on adjoining areas can be assessed.

Mauka of the proposed complex is a large area of State land extending to Kealakehe Elementary on Palani Road. The primary access to this area will eventually be from Kaahumanu Highway rather than Palani Road. This will not only accord well with desired lines of travel; it will also mitigate traffic past Kealakehe Elementary. Over the long term, the Kaahumanu access to this area should be located on the Kohala side of the complex. The connection with Kaahumanu should be directly opposite the parkway to Honokohau boat harbor. No part of this mauka extension of the parkway should be encroached upon by the complex. Nor should the complex serve to prevent design of this street within desirable grades.

As for the access to the complex itself, we think it a good idea that it be a separate one from the "parkway." Sharing the access with industrial uses on the Kona side should pose fewer problems. However, it should be anticipated that other industrial use of the Kona side may some day extend inland.

Honorable Hakoda
Page 2
January 31, 1977

Moreover, it should be expected that this intersection will provide a secondary access to the mauka area. Therefore, it would be appropriate to examine the design of this access point in some detail.

Another point of concern to us is the handling of sewage. The makai side of the highway is planned for resort, golf course and other uses as reflected in the plan prepared for us by Charles Yoon and Associates in 1968. This report represents a substantial investment in public funds, and the plan is a good one. It seems inappropriate that sewage from the sports complex will be channeled to wastewater treatment plant, that does not exist, at a site that has been planned for resort use.

Very truly yours,


GORDON SOH
Program Planning Coordinator

March 4, 1977

Mr. Gordon Soh
Program Planning Coordinator
Department of Land and
Natural Resources
P. O. Box 621
Honolulu, Hawaii 96809

Dear Mr. Soh:

SUBJECT: Responses to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 1/31/77

The following responses are addressed to your letter of comment on the EIS Notice of Preparation.

1. The Bernice P. Bishop Museum has performed an archaeological survey of the proposed project site.
2. The proposed sports complex area will neither encroach upon the mauka extension directly opposite the parkway access on Queen Kaahumanu Highway nor will the grading of the site prevent design of the mauka extension within desirable grades.
3. The "Kona side" access referred to as the collector road in the Kealakehe Regional Sports Complex EIS discusses future access to the mauka area. It is recommended that two inbound lanes be constructed along the collector road to provide a through lane and a left turn lane to avoid the possibility of creating backup onto Queen Kaahumanu Highway, when the future collector road is connected to Palani Road.
4. During the initial phases of development, temporary cesspools are proposed to discharge the limited sewage effluent generated at the Sports Complex. Ultimately, the sewage effluent is expected to be discharged into the future sewage collector line on Queen Kaahumanu Highway. The proposal to connect to the wastewater treatment plant makai of Queen Kaahumanu Highway is a possible future alternative to the aforementioned proposed solution.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/66

HAWAIIAN TELEPHONE COMPANY

P.O. BOX 425 • HILO, HAWAII 96720 • TELEPHONE 935-9411 • CABLE: TELHAWAII

February 2, 1977

Mr. Milton T. Hakoda, Director
Dept. of Parks & Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

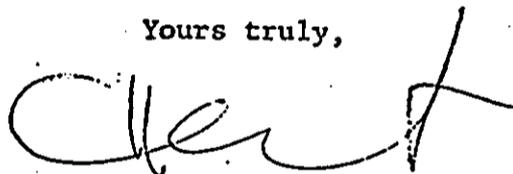
Dear Mr. Hakoda:

Subject: Kealakehe Regional Sports Complex, Kona, Hawaii
Environmental Impact Statement Preparation Notice

This is to acknowledge receipt of the above documents and to inform you that at this time, we have no specific comments to offer on the subject project.

We request the opportunity to review and offer comments on the routing of telephone communications facilities to serve the sports complex during the preliminary planning stages.

Yours truly,



Hisashi Enomoto
Supervising Engineer

HE/111

245 North Kukui Street, Honolulu, Hawaii 96817, Telephone (808) 537-5968

AMERICAN  LUNG ASSOCIATION of Hawaii

1 to 2 WA
EPA/101/1202A

February 2, 1977

Mr. Milton T. Hakoda, Director
Department of Parks & Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Mr. Hakoda:

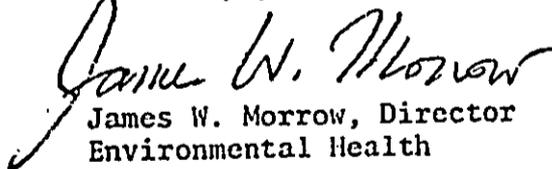
Subject: Kealahou Regional Sports Complex, Kona, Hawaii

It is our customary procedure in the consultation phase to review an EIS Preparation Notice and then make suggestions, if necessary, on how to analyze the air quality impact of a given project. In this particular case, we found that the Preparation Notice did not address the potential long-term impact on air quality of traffic attracted to the proposed sports complex. We, therefore, suggest that a phase by phase analysis of traffic impact on air quality be conducted using the methods described in the following EPA publication or some similar methodology.

Guidelines for Air Quality Maintenance
Planning and Analysis, Volume 9:
Evaluating Indirect Sources,
EPA-450/4-75-001 (January, 1975)

If we can be of any assistance in assessing the air quality impact of the proposed project, please do not hesitate to have members of your staff or consultants contact us.

Sincerely yours,


James W. Morrow, Director
Environmental Health

JWM:ct

cc: Dr. Richard E. Marland

Christmas Seals Fight TB, Asthma, Emphysema, Air Pollution

March 4, 1977

Mr. James W. Morrow
Director, Environmental Health
American Lung Association
245 North Kukui Street
Honolulu, Hawaii 96817

Dear Mr. Morrow:

SUBJECT: Response to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 2/2/77

The impact on air quality as outlined in Guidelines for Air Quality
Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources,
EPA-450/A-75-001 (January 1975) has been analyzed for the ultimate
project development and is presented in the Environmental Impact State-
ment.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/68

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII



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

February 2, 1977

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

Audrey W. Mortz, 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

Mr. Milton T. Hakoda, Director
Department of Parks & Recreation
25 Aupuni St.
Hilo, Hawaii 96720

Dear Mr. Hakoda:

Subject: Request for Comments on Proposed Environmental Impact
Statement (EIS) for Kealahou Regional Sports Complex, Kona,
Hawaii

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

We submit the following concerns for your consideration:

- (1) The Kailua Sanitary Landfill has a chronic fire problem which may create a smoke nuisance.
- (2) The adjacent quarry may create dust nuisance problems.
- (3) The sewage treatment plant proposed in the area may create an odor nuisance problem.

These anticipated nuisances may detract from the enjoyment of the proposed project.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

Sincerely,

A handwritten signature in cursive script, appearing to read "James S. Kumagai".

JAMES S. KUMAGAI, Ph.D.
Deputy Director for
Environmental Health

cc: DHO, Hawaii

March 4, 1977

James S. Kumagai, Ph.D
Deputy Director for Environmental
Health
Department of Health
State of Hawaii
P. O. Box 3378
Honolulu, Hawaii 96801

Dear Dr. Kumagai:

SUBJECT: Responses to Comments Received on EIS
Preparation Notice for the Kealakehe
Regional Sports Complex at Kealakehe,
Hawaii - Your letter of 2/2/77

The following responses are addressed to your letter of comment on the EIS Notice of Preparation.

1. The County of Hawaii is proposing to improve the Kailua Sanitary Landfill with a refuse process and disposal type facility. After the improvement is constructed, there should be no "chronic fire problem."
2. Under Public Health Regulations, Chapter 43, Air Pollution Control, the adjacent quarry operations will not be allowed to create dust nuisance problems to the proposed sports complex.
3. The proposed wastewater treatment plant makai of Queen Kaahumanu is to be designed to eliminate off-site odors.

Very truly yours,

Milton T. Hakoda
Director

GW:W24/69

GEORGE R. ARIYOSHI
GOVERNOR



RICHARD E. MARLAND, PH.D.
DIRECTOR

TELEPHONE NO.
548-6915

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

July 7, 1977

Mr. Milton Hakoda, Director
Department of Parks and
Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

SUBJECT: Environmental Impact Statement for the Kealakehe
Regional Sports Complex, Kona, Hawaii

Dear Mr. Hakoda:

This Office has reviewed the subject Environmental Impact Statement. We wish to offer the following comments:

Plate 1 shows the location of the project above the Mamalahoa Highway. We suggest this plate be changed to show the proper location of the proposed facility.

An important element in siting the facilities on the proposed site is the microclimate of the area. The information presented on P. III-1 and 2 is quite general. We suggest the incorporation and use of the data presented in the Final EIS for the Second Phase of the Honokohau Boat Harbor. The effects of the land/sea breeze system on the orientation of the playfields and on the energy requirements of the gymnasium should be considered and discussed in the EIS.

It is our understanding that there is a quarry operation north of the site. If this is the case, then the statement on page III-1 that the area is presently unused is incorrect and should be changed. Reasons supporting the choice of this site, which appears to lie between a sanitary landfill and a quarry, should be given. The potential environmental health aspects of locating such a facility at that location should be identified. Will users of the site be exposed to dust and smoke from nearby land uses?

The expansion of the Honokohau Boat Harbor and the proposed Kaloko-Honokohau National Cultural Park should be identified in the EIS. Is there a conflict between the expansion of the boat harbor and the siting of the proposed sewage treatment plant?

The air quality model is compared to the Federal standards (p. V-4) but not the State's standards. Such a comparison should be included in the EIS.

There are statements in the EIS that an approval for the use of cesspools will be sought from the Department of Health and also that this approval has been granted. Which is correct? How long a period of time will the temporary cesspools be in use? Will the water quality of the boat harbor be affected by this disposal method?

On page XI-2 the Environmental Quality Commission and the Office of the Environmental Quality Control are listed as being consulted. The Commission should be removed as they did not provide consultation. Did any of the private organizations respond to the receipt of the preparation notice?

As of this date this Office has received 14 comments on the subject EIS as shown on the attached list.

The EIS Regulations allow the accepting authority or his authorized representative to consider responses made by your agency after the fourteen day response period. This Office will exercise the option and will consider responses after the fourteen day period. This Office will exercise the option and will consider responses after the fourteen day period.

Thank you for allowing us to review this EIS. We look forward to receiving the Revised EIS.

Sincerely,


Richard E. Marland
Director

Attachment

List of commentors on the EIS for Kealahou Regional Sports
Complex, Kona, Hawaii (DPR)

<u>State Agencies</u>	<u>Date of Comment</u>
/ *Dept. of Defense	6-3-1977
/ Dept. of Land and Natural Resources	6-20-1977
/ Dept. of Planning and Economic Development	6-15-1977
/ *Dept. of Social Services and Housing	6-27-1977
/ *Dept. of Transportation	6-27-1977
 <u>University of Hawaii</u>	
/ *Water Resources Research Center	6-8-1977
/ *Environmental Center	6-29-1977
 <u>Federal Agencies</u>	
/ *Army - DAFE	6-3-1977
/ Corps of Engineers	6-10-1977
/ *Navy - 14th Naval District	6-13-1977
/ *Coast Guard	6-3-1977
/ *Fish and Wildlife Service	6-1-1977
 <u>County Agencies</u>	
/ *Dept. of Public Works	5-31-1977
/ *Dept. of Water Supply	6-13-1977

* denotes no comments

American Lung Assoc.

7-8-1977



DEPARTMENT OF PARKS & RECREATION

Herbert Matayoshi, Mayor

COUNTY OF HAWAII

Milton Hakoda, Director

December 8, 1978

Mr. Richard L. O'Connell, Director
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Subject: Response to Comments Received on the EIS for the Kealakehe
Regional Sports Complex - Your Letter of 7/7/77

The following responses are addressed to your letter of comment on the EIS:

1. The proper location of the proposed project is above the Queen Kaahumanu Highway and not Mamalahoa Highway as was shown on Plate 1. The map has been corrected as requested.
2. The climate of the Kona coast is extremely mild. As described in the EIS, the site is favorable toward the development of the recreational center as mild weather conditions prevail consistently throughout the year.

The orientation of the various exposed facilities (football field, baseball field, tennis courts, etc.) is dependent on the sun's path during the course of the day. The sun's orientation in the morning and late afternoon hours vary from 20° north to 20° south of the east-west latitude line. To minimize the effects of the sun on participants of the respective sport activities, the facilities should be oriented in the north-south direction. The goal posts of the football field, the home plate and second base of the baseball diamonds, and the length of the tennis courts should be in the north-south direction as indicated on Plate 3.

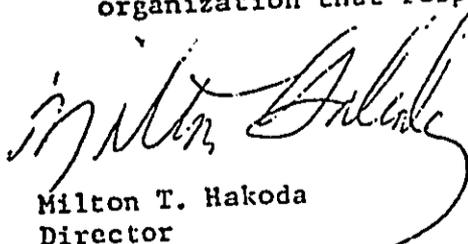
3. The statement on Page III-1 that the area is presently unused is incorrect. The quarry operation north of the site is now described in the text under Section III, Physical Environment. A site plan study conducted by the County of Hawaii has determined that the proposed Kealakehe site best fits the requirements for a Regional Sports Complex. Reasons for selection are now discussed on pages III-1 and III-2 in the EIS.

Environmental health problems created by dust or smoke are not foreseen. Point sources are the quarry operation to the north and the existing

Mr. Richard L. O'Connell
Page 2
December 8, 1978

landfill southeast of the project site. Wind conditions, however, are favorable in the dispersal of dust or smoke away from the sports complex. The prevailing onshore breezes from the southwest are typical during the day along the Kona Coast. Also, as part of future developments in the surrounding area, the existing landfill operation will be moved to a new location north of the Ke-ahole Airport. Fires at the landfill will therefore be eliminated.

4. The expansion of the Honokohau Boat Harbor and the proposed Kaloko-Honokohau National Cultural Park have now been described in the EIS on Page III-1. The expansion of the boat harbor, planned in two separate phases, is not in conflict with the siting of the proposed sewage treatment plant. The harbor boundary line occurs approximately 1,000 feet away (north) of the proposed treatment site.
5. The NAAQS Standards were used because they were referenced in the Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources. In retrospect, the State of Hawaii Standards are more applicable and are now referenced.
6. Approval has been granted by the Department of Health for the use of temporary cesspools. The inconsistency pertaining to the approval has been corrected. As discussed in the phasing of the Sports Complex development, a sewer system will be installed during Phase II construction which was to be initiated in fiscal year 1981. The exact date of initial construction (Phase I) is not certain, however, Phase II is planned approximately 3 years after Phase I. Concentrations of nitrogen and phosphorus, indicators of possible cesspool contamination, have been measured in the Keahole Point area (Water Quality Management for Hawaii Issues and Options, Issue Paper Number 3, County of Hawaii, 1978). The findings are not conclusive, as water quality determinations before the widespread use of cesspools are not available. It is not certain as to the impact of temporary cesspools upon the boat harbor waters at this time but it is not believed to be significant. Considerations in evaluating their potential contribution of contaminants are the existing water quality of the harbor, the circulation of the receiving waters, and the distance from the cesspools to the harbor.
7. The Environmental Quality Commission has been removed from the list of those consulted. The American Lung Association is the only private organization that responded to the receipt of the preparation notice.


Milton T. Hakoda
Director

AMERICAN  LUNG ASSOCIATION of Hawaii

July 8, 1977

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

Dear Dr. Marland:

Subject: EIS for the Proposed Kealahou Sports Complex

We have reviewed the subject EIS and attached comments. Our general reaction was that ambient air quality in the project area will not be seriously degraded but the air quality impact analysis, nevertheless, should have been a bit more extensive and provided greater detail.

Sincerely,

James W. Morrow, Director
Environmental Health

JWM:ct
Att.

cc: Department of Parks and Recreation, County of Hawaii



AMERICAN LUNG ASSOCIATION OF HAWAII

ENVIRONMENTAL IMPACT STATEMENT REVIEW

... an air quality assurance program

Project: Kealakehe Sports Complex

Date: July 8, 1977

All comments pertain to page V-4 of the EIS.

1. Please provide a more precise location of the potential receptor sites (preferably a sketch) and explain the reason for their selection rather than receptor sites closer to the roadways where higher CO concentrations could be expected.
2. Were the CO estimates based on 1-hour or 8-hour averaging periods?
3. Since the State of Hawaii has the most stringent ambient air quality standards applicable in the project area, comparison should have been made with them rather than the NAAQS.
4. The estimates were reported to be 90% and 75% below the NAAQS. If the standard referred to was the 1-hour CO standard of 40 mg/m^3 , this means that the estimates were 4 and 10 mg/m^3 . The Hawaii 1-hour standard is 10 mg/m^3 ; so, the latter estimate suggests that this standard will be approached under worst case meteorology.

STATE OFFICE
245 N. Kukui St.
Honolulu, Hawaii 96817
Telephone 537-5000

HAWAII COUNTY
Post Office Box 025
Hilo, Hawaii 96720
Telephone 935-1200

KAUAI COUNTY
Post Office Box 991
Lihue, Hawaii 96700
Telephone 245-4142

MAUI COUNTY
Cameron Center
Wailuku, Hawaii 96703
Telephone 244-5110



DEPARTMENT OF PARKS & RECREATION
COUNTY OF HAWAII

Herbert Matayoshi, Mayor
Milton Hakoda, Director

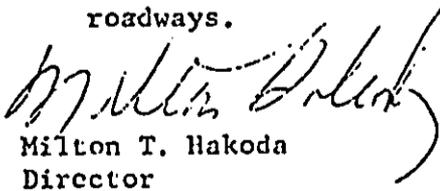
December 8, 1978

Mr. James W. Morrow, Director
Environmental Health
American Lung Association of Hawaii
245 North Kukui Street
Honolulu, Hawaii 96817

Subject: Response to Comments Received on the EIS for the Kealahou
Regional Sports Complex - Your Letter of 7/8/77

The following responses are addressed to your letter of comments on the EIS:

1. As mentioned in the EIS for the project, the Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources, EPA 450/4-75-001 Jan 1975, was used to estimate carbon monoxide concentration. After calculating certain parameters, and choosing the appropriate graph for the road and/or intersection conditions involved, the CO concentrations can be estimated for a point 10 meters from the edge of the roadway. The CO concentrations at 10 meters are then used as a standard yardstick and a relative multiplier factor, obtained from other graphs, are then applied to find the CO concentrations at any distance from the roadway. CO concentrations along a line sixty meters offset from the Queen Kaahumanu Highway were calculated because it was considered to be the closest any facilities would be located to the highway. Likewise, CO concentrations along a line 15 meters offset from the access road were calculated as the closest any facilities would be located to the access road. For these reasons, the receptor sites actually represent lines parallel to the appropriate roadway at a given distance from it.
2. The CO estimates were based on a 1-hour averaging period.
3. The NAAQS Standards were used because they were referenced in the Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources. In retrospect, the State of Hawaii standards are more applicable and should have been referenced.
4. Your fourth comment is correct. The one-hour CO concentrations are estimated at approximately 4 and 10 mg/m³ for the given distance from the roadways. Concentrations will continue to disperse with increasing distance from the roadways.


Milton T. Hakoda
Director

GEORGE R ARIYOSHI
GOVERNOR



VALENTINE A SIEFERMANN
MAJOR GENERAL
ADJUTANT GENERAL

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

3 JUN 1977

HIENG

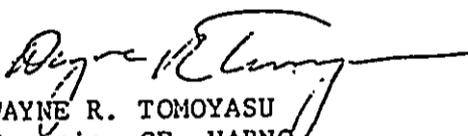
Dr. Albert Tom, Chairman
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Dr. Tom:

Kealakehe Regional Sports Complex
Kalakehe, Hawaii - EIS

Thank you for sending us a copy of the "Kealakehe Regional Sports Complex" 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

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII



CHRISTOPHER COBB, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

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

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

June 20, 1977

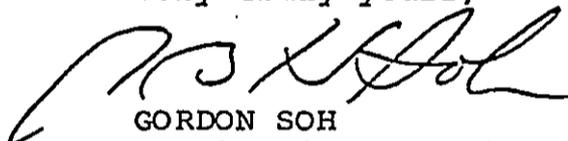
Environmental Quality Commission
550 Halekauwila St. Rm. 301
Honolulu, HI 96813

Gentlemen:

We have reviewed the EIS for the Kealakehe sports complex and have no additional comments to make except that:

- 1) Water service should be closely coordinated with the Department of Water Supply for each of the three project phases.
- 2) Requests for any set asides be in three increments coinciding with the three phases.

Very truly yours,


GORDON SOH
Program Planning Coordinator

cc: Div. of Land Management
DOWALD



DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT

GEORGE R. ARIYOSHI
Governor

HIDETO KONO
Director

FRANK SKRIVANEK
Deputy Director

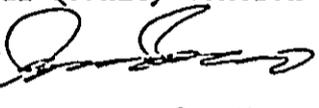
Kamamalu Building, 250 South King St., Honolulu, Hawaii • Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Ref. No. 3822

June 15, 1977

MEMORANDUM

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

FROM: Hideto Kono, Director 

SUBJECT: Environmental Impact Statement for Kealakehe Regional Sports
Complex, Kona, Hawaii

We have reviewed the subject EIS and find that, in general, it has adequately assessed the major environmental impacts which could be anticipated from implementation of this project.

We are pleased to note that our previous comments, made in regard to the EIS preparation notice for this project, were addressed in this document.

Thank you for the opportunity to review this statement.

cc: Mr. Milton Hakoda

GEORGE R. ARIYOSHI
GOVERNOR



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

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

June 27, 1977

MEMORANDUM

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

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

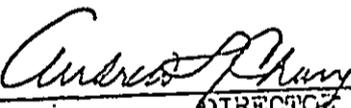
SUBJECT: EIS Kealahou Regional Sports Complex, Kealahou, Hawaii

Subject EIS has been reviewed for affect on departmental programs.

We have no comment to make regarding this sports complex.

We are returning the EIS for your usage.

Thank you for the opportunity to review and comment.



DIRECTOR

Attachment

cc: Office of Environmental Quality Control
Dept. of Parks and Recreation, County of Hawaii

GEORGE R. ARIYOSHI
GOVERNOR



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

June 27, 1977

E. ALVEY WRIGHT
DIRECTOR

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

IN REPLY REFER TO:

STP 8.4319

Office of Environmental
Quality Control
550 Halekauwila St., Rm. 301
Honolulu, Hawaii 96813

Gentleman:

Subject: Environmental Impact Statement for
Kealakehe Regional Sports Complex

Thank you very much for giving us the opportunity to review the
above-captioned document. We have no comments to offer which could
improve the contents of the document.

Sincerely,

E. Alvey Wright
E. ALVEY WRIGHT

University of Hawaii at Manoa

Water Resources Research Center

MEMORANDUM

June 8, 1977

TO: Office of Environmental Quality Control

FROM: Reginald H. F. Young ^{RHY}
Assistant Director, WRC

SUBJECT: EIS for Kealakehe Regional Sports Complex, Kealakehe, Hawaii

We have reviewed the above EIS and have no critical comment. The EIS is being returned to the Environmental Quality Commission.

We appreciate the opportunity to participate in this EIS review.

RHFY:sn



University of Hawaii at Manoa

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

Office of the Director

June 29, 1977

MEMORANDUM

TO: Department of Parks & Recreation, County of Hawaii
✓ Office of Environmental Quality Control

FROM: Doak C. Cox, Director
Environmental Center

RE: EIS for Kealakehe Regional Sports Complex,
Kealakehe, Hawaii

The Environmental Center does not plan to review this EIS due to limitations in time and available staff. We would appreciate receipt of the revised EIS when it becomes available.

DCC/JM/ck

AN EQUAL OPPORTUNITY EMPLOYER



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

'03 JUN 1977

AFZV-FE-EE

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

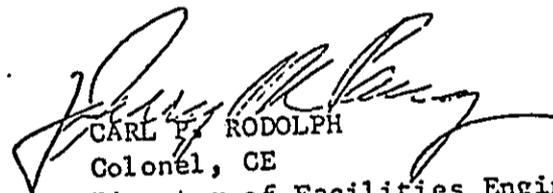
Gentlemen:

Environmental Impact Statement (EIS) for Kealahou Regional Sports Complex, Kealahou, Hawaii, dated 25 May 77 has been reviewed and we have no comments. There are no Army installations in the immediate vicinity of the proposed sports complex.

The EIS is returned in accordance with your request.

Thank you for the opportunity of reviewing the document.

Sincerely yours,



CARL V. RODOLPH
Colonel, CE
Director of Facilities Engineering

1 Incl
As stated

CF:
Dept of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720



DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
BLDG. 230, FT. SHAFTER
APO SAN FRANCISCO 96558

10 June 1977

PODED-P

Director
Department of Parks and Recreation
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

Dear Sir:

This letter is in response to a request and instructions, dated 26 May 1977, by the State of Hawaii Office of Environmental Quality Control to review the Environmental Impact Statement for the Kealahou Regional Sports Complex at Kealahou, Hawaii.

This office has no objections to the project and has no water resource development project that would affect the area other than the completed Honokohau Small-Boat Harbor located on the coast which is now operated by the State. The Kealahou area is not a known flood hazard area and is not located in an area where the Corps has regulatory jurisdiction.

Attached are comments which may be considered during the preparation of the final environmental statement and project plans.

Sincerely yours,

KISUK CHEUNG
Chief, Engineering Division

1 Incl
As stated

Cy Furn:
Office of Environmental Quality
Control, State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813 w incl



ENVIRONMENTAL IMPACT STATEMENT FOR
KEALAKEHE REGIONAL SPORTS COMPLEX
KEALAKEHE, HAWAII

1. The environmental impact statement (EIS) does not address the provision for landscaping the regional sports complex or the need for topsoil or other material suitable for landscaping activities. It is suggested that native vegetation be utilized for landscaping where possible.
2. The EIS does not address climatic conditions - in particular, frequency and occurrence of wind direction which should influence the orientation of playing fields, tennis courts, and other facilities. Other climatic conditions such as temperature may influence the design and orientation of enclosed facilities in order to minimize energy requirements for cooling or maintaining comfortable conditions.



DEPARTMENT OF PARKS & RECREATION
COUNTY OF HAWAII

Herbert Matayoshi, Mayor
Milton Hakoda, Director

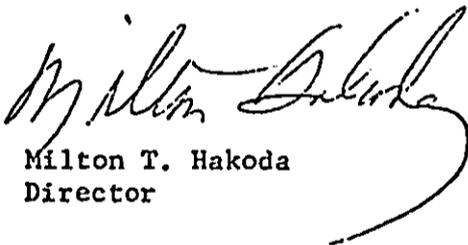
December 8, 1978

Mr. Kisuk Cheung
Chief, Engineering Division
U.S. Army Engineer District, Honolulu
Building 230, Fort Shafter
Department of the Army
APO San Francisco 96558

Subject: Response to Comments Received on the EIS for the
Kealakehe Regional Sports Complex -
Your Letter of 6/10/77

The following responses are addressed to your letter of comments
on the EIS:

1. Extensive landscaping will be provided under the sports complex plan as stated under Section V, part (i) of the EIS. Plantings will be selected to complement the sports facilities as well as the surrounding environment.
2. A discussion on existing climatic conditions has been added to the EIS text. Included in the addition is a discussion on the orientation of the exposed play fields and tennis courts relative to the sun's path.


Milton T. Hakoda
Director

HEADQUARTERS
FOURTEENTH NAVAL DISTRICT
BOX 110
APO SAN FRANCISCO 96610

IN REPLY REFER TO:

48A:AMN:amn
Ser 1196

13 JUN 1977

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

Gentlemen:

Environmental Impact Statement
for
Kealakehe Regional Sports Complex
Kealakehe, Hawaii

The Navy has no comments on the subject EIS forwarded by your letter of 26 May 1977. Per your request the EIS is returned. Thank you for the opportunity to review the EIS.

Sincerely,



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

Encl



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

Address reply to:
COMMANDER (mep)
Fourteenth Coast Guard District
677 Ala Moana
Honolulu, Hawaii 96813

16475
3 JUN 1977

County of Hawaii
Department of Parks and Recreation
25 Aupuni Street
Hilo, Hawaii 96720

Gentlemen:

Staff review of the "Environmental Impact Statement for the Kealakehe Regional Sports Complex, Kealakehe, Hawaii" has been completed, and the Coast Guard has no comments to offer on the project.

The opportunity to review and comment on the EIS is appreciated.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. W. Caffrey".

J. W. CAFFEY
Captain, U. S. Coast Guard
Chief of Staff
Fourteenth Coast Guard District

Copy to:
Commandant (G-WEP-7)
CEQ Washington DC
OEQC Hawaii



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Division of Ecological Services
300 Ala Moana Blvd., Rm. 5302
P. O. Box 50167
Honolulu, Hawaii 96850

June 1, 1977

Dr. Richard Marland, Director
Office of Environmental Quality Control
550 Halekauwila Street, Rm. 301
Honolulu, Hawaii 96813

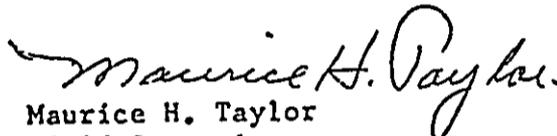
Re: EIS
Kealakehe Regional Sports Complex
Kealakehe, Hawaii

Dear Sir:

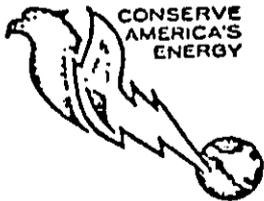
We have reviewed the above referenced Environmental Impact Statement and have no additional comments.

Thank you for the opportunity to comment. We are returning the subject EIS as requested.

Sincerely yours,


Maurice H. Taylor
Field Supervisor

ARD, AE
HA
HDF&G



Save Energy and You Serve America!

HERBERT T. MATAYOSHI
MAYOR

EDWARD K. HARADA
CHIEF ENGINEER



BUREAUS AND DIVISIONS:
AUTOMOTIVE EQUIPMENT & MOTOR POOL
BUILDING CONSTRUCTION & INSPECTION
PLANS AND SURVEYS
ROAD CONSTRUCTION AND MAINTENANCE
SEWERS AND SANITATION
TRAFFIC SAFETY AND CONTROL

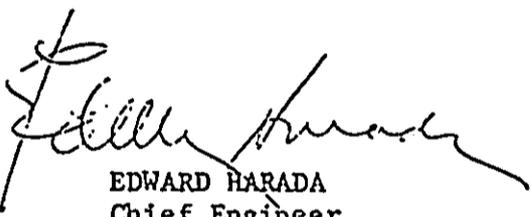
COUNTY OF HAWAII
DEPARTMENT OF PUBLIC WORKS
25 AUPUNI ST.
HILO, HAWAII 96720

May 31, 1977

Office of Environmental Quality
Commission
550 Halekaiwila Street, Room 301
Honolulu, HI 96813

SUBJECT: E.I.S. Kealakehe Regional Sport Complex, Kealakehe, Hawaii

Thank you for the opportunity to review the subject document. We have no comments to offer and will retain the document for our files.


EDWARD HARADA
Chief Engineer

cc: Parks & Recreation
Planning Department



DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII

P. O. BOX 1820

HILO, HAWAII 96720

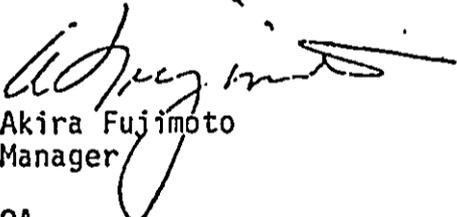
25 AUPUNI STREET

June 13, 1977

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

Re: Environmental Impact Statement
for Kealakehe Regional Sports Complex
Kealakehe, Hawaii

As requested, we are returning the Environmental Impact Statement for the above project since we have no comments to offer.


Akira Fujimoto
Manager

QA

Enc.

... Water brings progress...

SECTION XIII

SUMMARY OF UNRESOLVED ISSUES

The following is a summary of unresolved issues for the proposed Sports Complex.

1. The proposed Sports Complex is located in the Ahupuaa of Kealakehe which is owned by the State of Hawaii. Before the development plan can be implemented, the land must be transferred over to the County by Executive Order of the Governor.
2. The Sports Complex when completed will become the major grouping of civic facilities in the western section of the Island of Hawaii. The total development and maintenance costs will be considerably beyond the present financial capability of the County.
3. The initial Sports Complex facilities will be completed before the 1980 improvement of the main intersection at Queen Kaahumanu Highway. This will create special problems during major sports events and will probably require on-site police control of traffic at the intersection.
4. At the present time it is anticipated that some day an improved drainage system will be constructed crossing Queen Kaahumanu Highway and probably the ancient Mamalahoa Trail. This future construction will cause the trail to become discontinuous at the point where the drainage improvement crosses the trail.

SECTION XIV

LIST OF NECESSARY APPROVALS

The development of the Kealakehe site will require extensive government agency approvals. The government agencies having such jurisdiction over the proposed projects at Kealakehe are listed and discussed below.

A. STATE OF HAWAII

1. Department of Land and Natural Resources (DLNR)

DLNR has the responsibility for administering permits for construction within conservation districts. A Conservation District Use Application (CDUA) must be filed with the DLNR prior to any construction on this site. DLNR must transfer the site to County jurisdiction.

2. Department of Transportation (DOT)

All access and utility connections to the main highway will require the review and approval of the Highways Division, DOT, and the connections will have to meet standard DOT requirements.

3. Department of Health (DOH)

The responsibilities for controlling air and water pollution are handled by the State DOH. In particular, sewage disposal methods for this site will be required to meet the DOH Public Health Regulations.

B. COUNTY OF HAWAII

1. Planning Department

All major developments will require review and approval of the County Planning Department prior to construction. Construction must then meet the requirements of the County Zoning Ordinance. A subdivision map has been prepared of the proposed site and approval

should be granted after the transfer of land ownership is completed through executive order between the present owner (State of Hawaii) and the County of Hawaii.

2. Building Department

All construction must be approved by the Building Department and a Building Permit issued prior to construction. In general, the obtaining of the Building Permit will be the final step necessary in obtaining government approval for any proposed development at this project site.

3. Department of Public Works (DPW)

As required in Ordinance 168, recently passed by the County of Hawaii, all clearing and grubbing, excavation, mass grading or other earthwork will require review and approval by DPW and the issuance of a Grading Permit.

4. Department of Water Supply

All water lines and connection designs to the existing potable water system will be reviewed and approved by the Department of Water Supply.

5. Department of Parks and Recreation

All design plans, specifications and construction will be reviewed and approved by the Department of Parks and Recreation.

6. Hawaii Electric Light Company, Inc.

Proposed electrical connections to the existing lines will require review and approval by Hawaii Electric Light Company, Inc.

7. Hawaiian Telephone Company

Routing of new telephone communications facilities serving the proposed Sports Complex will be reviewed and approved by the Hawaiian Telephone Company.

REFERENCES

1. Donald Wolbrink and Associates, Inc., Kona Community Development Plan, July 1975.
2. Department of Parks and Recreation, County of Hawaii, Kealakehe Regional Sports Complex, 1976.
3. Department of Parks and Recreation and Planning Department, County of Hawaii, Recreation Plan, 1973.
4. Department of Planning, County of Hawaii, General Plan, 1971.
5. Department of Planning and Economic Development, State of Hawaii, State Comprehensive Outdoor Recreation Plan, December 1975.
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