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AN EQUAL OPPORTUNITY EMPLOYER
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DEPARTMENT OF PUBLIC WORKS
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LIHU'E, KAUA'I, HAWAII 96766

August 14, 2000

REC. OF ENVIRONMENTAL
QUALITY CONTROL

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RECEIVED

Ms. Genevieve Salmonson, Director
State of Hawaii
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Salmonson:

RE: FINDING NO SIGNIFICANT IMPACT (FONSI) FOR THE
VIDINHA STADIUM COMPLEX EXPANSION
LIHUE, KAUA'I, HAWAII (TMK: 3-6-02: 16 & 18)

The County of Kauai, Department of Public Works has reviewed the comments received during the 30-day public comment period which began on March 23, 2000. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the September 3, 2000 OEQC Environmental Notice.

We have enclosed a completed OEQC Publication Form and four copies of the final EA. Please call Wallace Kudo at 241-6620 if you have any questions.

Very truly yours,


CESAR C. PORTUGAL
County Engineer

WK

Enclosure

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FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT

For the
* **VIDINHA STADIUM COMPLEX EXPANSION** *
Lihue, Kauai, Hawaii
TMK: (4) 3-6-02: 16 & 18

PROPOSING AGENCY:

County of Kauai
Department of Public Works
4444 Rice Street
Lihue, Kauai, Hawaii 96766

Responsible Official: 
Cesar C. Portugal, County Engineer

AUG 15 2000
Date

PREPARED BY:

Akinaka & Associates, Ltd.
Consulting Engineers
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

DEPT. OF ENVIRONMENT/
QUALITY CONTROL

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AUGUST 2000

This Environmental Document Was Prepared Pursuant to Chapter 343, Hawaii Revised Statutes

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I. INTRODUCTION

A. PROJECT DESCRIPTION

The Vidinha Stadium Complex Expansion (the "Project") will develop the vacant ten (10) acre parcel which is immediately north of the existing stadium facility. The parcel is owned by the County of Kauai and was purchased for the stadium complex expansion. Although previously overgrown with volunteer cane, grasses and shrubbery, the parcel was regraded by the County in 1995 so that it could be used as a temporary fairground, overflow parking area, soccer field, and other activities.

Minimum requirements for the expansion include a swimming pool and tennis courts. The project will also include field lighting for the existing baseball field located adjacent to the football stadium. Depending on the availability of funding, a gymnasium complex and additional vehicular parking is also proposed. A "Facilities Planning Report" has been developed to determine size, features and layout of the facilities within the expansion area. The report not only includes infrastructure analysis but also contains input from a Citizens Advisory Committee and addresses concerns received during a public informational meeting.

B. PROJECT LOCATION

The Project will be located in the town of Lihue, the County seat (See **EXHIBIT 1: LOCATION MAP**). The existing stadium is situated immediately north of Lihue Industrial Park, Unit 1. Sugar cane is cultivated in the fields west of the Project and the recently completed Veterans Center is immediately north. Kapule Highway borders the east boundary of the Project with the Kiele Golf Course located across the stadium, on the makai side of the highway (See **EXHIBIT 2: VICINITY MAP**).

Access to the complex is via Hoolako Street to the west and Kapule Highway to the east, with Ahukini Road and Rice Street serving as feeder roads (see **EXHIBIT 3: SITE PLAN**). There are three entrances to the complex. One is at the northeast corner of the existing complex site, intersecting Kapule Highway. The other two are at the western corners of the complex, intersecting Hoolako Street.

II. DESCRIPTION OF PROPOSED PROJECT

A. BACKGROUND AND EXISTING CONDITIONS

Expansion of the existing complex was initiated in 1969 when a master plan was developed. Subsequently, the 10 acre site was acquired but other facilities were previously considered for the site, including a senior center complex, fairgrounds and athletic fields. The recently completed Facilities Planning Report with input from the Citizens Advisory Committee confirmed the development of the site for swimming, tennis, a gymnasium and supporting facilities.

The expansion site is presently vacant. The existing Vidinha Stadium Complex includes:

1. Baseball Field

There is a baseball field with bleachers and a practice area within the complex. The available seating is currently provided by portable bleachers. The field does not have floodlighting for night games.

2. Football Field

The football and track stadium has concrete bleachers with seating for 5000 spectators. These bleachers also house team locker rooms, concession stands, public restrooms radio and press facilities, and floodlighting.

3. Parking Facilities

Currently, there are approximately 748 parking stalls within the complex. There is also an area reserved for parking buses which transport people to and from the stadium. There is also space for overflow parking of 355 additional cars in the outfield area of the baseball field.

B. PROPOSED IMPROVEMENTS

The initial improvements of the proposed project include the addition of a swimming pool, tennis courts, and floodlighting for the existing baseball field. Depending on the availability of funding, additional improvements would include a gymnasium and additional vehicular parking. These improvements were

agreed upon by the citizen's advisory committee. The anticipated construction schedule for these facilities is as follows:

- Phase I - Swimming Pool
- Phase II - Tennis Courts
- Phase III - Gymnasium and Parking Lot

1. Swimming Pool

A swimming pool is a facility which is desired by the community and which conforms to the state legislative funding requirements. This pool should be 50 meters in length by 25 yards in width to accommodate competitive swimming events. Locker rooms, showers, restrooms, storage, and a small office should be located adjacent to the pool. Open type bleachers with seating capacities of 500 should be located on each side of the length of the pool, providing 1000 seats for spectators. Overhead lighting of the pool should be provided in order to hold events at night.

2. Tennis Courts

A bank of 11 tennis courts is proposed for the west end of the expansion site. The courts should be of regulation size and dimension, constructed of an asphalt concrete with a color coating surface. The type of surfacing to be used will be compatible for tennis and roller blading activities. A 10' high chain link fence should enclose the court area.

Ideally, all courts should be lighted and equipped with timers in order to allow for night play if desired. Portable type bleachers and a small open pavilion with restroom facilities are planned adjacent to one of the courts for exhibition matches. Drinking fountains would also be provided nearby.

3. Baseball Field Lights

The proposed project will also equip the existing baseball field with floodlighting for night games. The field lights will be designed to conform with the requirements for a semi-professional facility with 5,000 spectators or less. Flood lighting will be mounted on a total of eight galvanized steel poles, approximately 90 feet in height. The lights will be strategically placed around the perimeter of the existing field to provide optimum illumination levels for night time use.

4. Gymnasium

The primary use of the gymnasium would be for basketball games, though many other activities could be accommodated as well. It would also be an ideal site in which to hold events such as volleyball games, wrestling matches, concerts, exhibits, and large meetings.

The spectator seating will be provided by four sets of telescoping bleachers surrounding the court. The bleachers can be folded back against the wall when not in use, providing greater flexibility in seating arrangements. This type of bleacher system would also allow for much more practice space when the seats are folded.

Locker rooms with showers, public restrooms, storage space, and a small office are also part of the plan. Sufficient lighting, a public address system, and an electric scoreboard would be provided in this facility.

Air conditioning, while seeming to be an unjustifiable luxury, is in fact necessary to mitigate the high noise levels from nearby Lihue Airport. An acoustic study by Y. Ebisu & Associates, dated July 1995 addresses the noise concerns (See Appendix A).

5. Parking Facilities

The proposed parking lot would add an additional 393 parking spaces to the complex. With the additional spaces, the total number of spaces will be 1141. The baseball field would still be available for overflow parking for 355 vehicles. Parking stalls are not planned within the Kapule Highway right-of-way.

Using the Land Use Ordinance of the City and County of Honolulu as a reference, a sports facility should provide 1 space of off-street parking for every 5 fixed seats. Thus, the following numbers of stalls would be required for the various facilities within the complex:

<u>Facility</u>	<u>Number of Required Parking Stalls</u>
Football Stadium	1000
Baseball Stadium	800
Swimming Pool	200
Tennis Courts	33
Gymnasium	800

It is assumed that only one of the facilities will be fully occupied at any given time. Therefore, the minimum number of stalls required will be equal to the number of spaces required for the facility with the greatest seating capacity. Thus, the minimum number of stalls for the complex is 1000. With the addition of the proposed parking lot, this requirement will be exceeded.

On-street parking is also available along Hoolako Street for overflow vehicles.

C. COST ESTIMATES

Cost estimates were prepared for each of the proposed improvements. These estimates include preliminary construction costs as well as annual operational expenses. As shown on the following table, the total construction cost of the proposed project is estimated to be approximately \$18.9 million. The annual operational expenses are estimated to be about \$370,000.

ORDER-OF-MAGNITUDE ESTIMATE

1. CAPITAL IMPROVEMENTS COST

a.	SWIMMING POOL (50M X 25Y)	\$ 6,876,900
b.	TENNIS COURTS (11 COURTS)	1,651,000
c.	GYMNASIUM (5,000 CAPACITY)	9,526,000
d.	BASEBALL FIELD LIGHTS.....	<u>800,000</u>
	TOTAL	\$18,856,900

2. ANNUAL OPERATIONAL EXPENSES

a.	SWIMMING POOL (50M X 25Y)	\$ 84,300
b.	TENNIS COURTS (11 COURTS)	33,200
c.	GYMNASIUM (5,000 CAPACITY)	230,300
d.	BASEBALL FIELD LIGHTS.....	<u>20,790</u>
	TOTAL	\$ 368,590

D. LIST OF POTENTIAL PERMITS AND APPROVALS

1. Federal Government

- U.S. Department of Transportation, Federal Aviation Administration
- Notice of Proposed Construction or Alteration

2. State of Hawaii

Department of Transportation

- Construction Plan Approval for Work Within the Right-of-Way

Department of Health

- Construction Plan Approval
- NPDES Permit for Discharges of Stormwater Associated with Construction Activity (Clean Water Branch)
- Construction Plan Approval (Commission on Persons with Disabilities)
- Community Noise Permit for Construction Activities (Noise, Radiation, and Indoor Air Quality Branch)
- Public Swimming Pool Permit

3. County of Kauai

Planning Department

- Special Permit
- Use Permit
- Class IV Zoning Permit

Department of Water

- Construction Plan Approval

Department of Public Works

- Construction Plan Approval

III. ENVIRONMENTAL SETTING

A. TOPOGRAPHY

The ten acre site is approximately rectangular with dimensions of 400' x 1,150' with north-south gradient of 3%±. Due to extensive sugar cane cultivation, the terrain is level. Additionally, the County recently graded the site for use as a fairground, overflow parking, soccer field, and other activities.

Elevation at the site varies between 162 and 174 feet above sea level. Topographic information of the area is available in the Lihue Quadrangle Map published by the U.S. Geological Survey.

B. GEOLOGY / SOILS

The Island of Kauai is the oldest of the major islands in the Hawaiian chain. The Kauai Volcanic shield built itself off the ocean floor approximately two to four million years ago. Rock formations belonging to this original shield are part of the Waimea Canyon Volcanic Series, a major portion of which are the thin lava flows of the Napili formation which later covered the shield mass.

The Geological and Topographical Map of the Island of Kauai which is a supplement to Bulletin 13 "Geology and Ground-water Resources of the Island of Kauai," by G.A. MacDonald, D.A. Davis and D.C. Cox shows that the project site is underlain with basalt from lava flows of the Koloa Volcanic series. Lavas of the Koloa Volcanic series are for the most part poorly to moderately permeable. Basal water occurs in the rocks where they extend below sea level.

Soils at the project site are classified as Lihue Silty Clay (LhB) and (LIB). Permeability is moderately rapid, runoff is slow and erosion hazard is no more than slight.

C. CLIMATE

The climate of Kauai is comfortably uniform and is characterized by the northeast tradewinds generated by regions of high pressure to the north. These winds keep the average monthly temperature within the range of 69° in February to 77° in August.

The consistent approach of the tradewinds from the Northeast distinguishes the island into windward and leeward sides. Windward Kauai receives larger amounts of rainfall as the result of the condensation of water vapor as it is forced up into the atmosphere by the mountain mass. Mount

Waialeale, for example, has a mean annual rainfall of 466 inches. Wainiha on the windward side of Kauai received 80 to 90 inches per year. The project site, located one and one-half miles from the ocean has an annual rainfall of 50 inches.

D. GROUNDWATER

The principal sources of ground water of the island of Kauai are from rocks of the Waimea Canyon volcanic series. These rocks are typically highly permeable and yield water readily to wells. The Koloa Volcanic series, in contrast, tend to be poorly to moderately permeable and offer limited yield. In the Lihue area, which is within the Koloa Volcanic series, water is obtained primarily from wells which tap basal aquifers.

E. BIOLOGY

The site was once cultivated for sugar cane by the Lihue Plantation Company. Natural vegetation at the site has been replaced by sugar cane and later by weeds, grass and shrubbery. The site was recently regraded (early 1995) so that it could be used as a temporary fairgrounds, soccer field, overflow parking area, and other activities.

No threatened or endangered birds are known to inhabit the area. Common urban birds, such as mynahs, doves, cardinals, and sparrows were observed at the project site. Wildlife inhabiting the area include stray cats, and rats and wild chickens which are common in open areas next to residential areas.

F. AIR QUALITY

Although no information on air quality at the project site was obtained, it is generally observed that the air is relatively clear and low in pollution. This is because low density of vehicular traffic and the consistent tradewinds at the site.

Although vehicular emissions will increase during periods of project activities, these emissions are not considered significant. Fugitive dust emissions during clearing and grading will be localized and temporary. Use of water trucks and irrigation systems will mitigate the fugitive dust concerns.

G. NOISE

Noise emanating from the project will be compatible with that from the existing facility. Meets at the swimming pool will produce the highest level noise from the project. The noise level will be much less than that of the football stadium or baseball field. Appendix A discusses noise that may affect the use of the project generated from beyond the property line.

H. ARCHAEOLOGY

There are no identified historic or archaeologically significant locations at the site or immediate vicinity. The nearest identified site is along the coast about a half-mile away. However, should any unanticipated sites, artifacts or remains, such as shell, bone or charcoal deposits, be discovered during construction, the work would be halted and mitigating measures will be discussed with the State Historic Preservation Office prior to commencing construction activity.

The project area has been under cane cultivation for many years. The ground has been completely disturbed by heavy equipment used for planting and harvesting. Items of historical value that may have existed previously on the site have been destroyed by the heavy equipment.

I. FLOOD HAZARD

The project site is included within Flood Insurance Rate Map, Panel 150002 0202C. It is classified as Zone X which designates areas determined to be outside the 500-year flood plain.

Flood flows generated by the westerly residential areas are either directed away from the project or collected in an existing ditch system on the southerly border of the existing complex. The project will include local drainage improvements.

J. UTILITIES

Domestic flow is adequate based on scheduling only one major event at either the football stadium or gymnasium. The existing meter and distribution system would be maintained. For fire flow, a 12-inch main is available on Kapule Highway and a separate meter will be requested.

Upgrading of the facilities' sewer collection system will be insignificant. The County's Lihue Sewage Treatment Plant is approximately a quarter of a mile away and has the capacity to treat flows from the expanded facility. Additional electrical service will be required for the project. Another KECO metered service from Kapule Highway will be requested. The facilities within the project will be

connected by an underground duct system. The existing electrical system would remain intact and service only the existing stadium complex.

K. TRAFFIC

A traffic impact report was prepared by The Traffic Management Consultant (included as Appendix B). The report evaluated the existing traffic condition and future conditions with and without the project.

It is anticipated that there will be an increase in traffic within the stadium complex. To keep traffic flowing, a drop off area will be included in the plans. To mitigate backup of vehicles exiting to Kapule Highway, a left turn storage lane is proposed.

L. LAND USE

1. State Land Use Plan

The State Land Use Commission designates properties in four categories: Agriculture, Rural, Urban, and Conservation. The proposed project lies within land designated as Agriculture.

Classification of Kauai lands by State Land Use Commission (Jan 1990).

Agriculture	140,595 AC (39.8%)
Rural	1,233 AC (0.3%)
Urban	12,976 AC (3.7%)
Conservation	198,732 AC (56.2%)
TOTAL	353,900 AC (100.0%)

2. County of Kauai General Plan

The General Plan for the County of Kauai, dated March 1970, provides information on the surrounding communities and land use designations. Also provided are generalized statements regarding transportation, sewer and water systems, storm drainage, etc. The General Plan guides the orderly development of the county.

The project conforms to the General Plan as it lies within land designated by the Lihue Map as Urban Mixed Use District. The proposed project is not within the Special Management Area.

M. OTHER PROJECTS IN THE AREA

The County of Kauai is planning to construct the Kauai Police Station and the County Bus Facility on the property abutting the Vidinha Stadium parcel to the north. In addition, the State of Hawaii is planning to construct the Kauai Judiciary Complex in the same area.

IV. SOCIO-ECONOMIC SETTING

A. POPULATION

The population of the County of Kauai in 1990 was 54,099 of which 11,649 or 21.5 percent reside in the Lihue District. Between 1980 and 1990 the Lihue District's population grew from 8,590 persons to 10,663 persons. This growth represented an annual increase of 2.2 percent which compares closely to the annual growth of 2.3 percent between 1970 and 1990, increasing from 6,766 persons in 1970.

Projected population changes for the Lihue District are contained in the Office of State Planning's 1992 State Land Use District Boundary Review for Kauai. The district population is projected to increase from 11,649 in 1990 to 17,171 in 2000 and 24,384 in 2010.

B. ECONOMY

Sugar cultivation is the leading agricultural activity on Kauai. It's position will shrink in scale due to the anticipated closure of McBryde Sugar Co. The anticipated loss in sugar activity may be partially replaced by diversified agriculture such as coffee and ornamental plants.

The County of Kauai should experience economic growth generated by the recovery and expansion of the visitor industry and associated activities. The growth will depend on the return of major hotels to active business, development of new visitor activities and the success of alternative agriculture crops.

Personal income earned in 1989 by Kauai residents totaled \$790 million. Average per capita income was \$15,585 which was 4.9 percent higher than the average 1988 income.

C. PUBLIC CONTACT

In addition to the input directly from the Citizens Advisory Committee, two public informational meetings were convened to receive input and discuss the projects. The first public informational meeting was held on June 29, 1994 at the Kauai War Memorial Hall in Lihue. This meeting was general in nature to elicit community desires. Major items from the public were.

1. Repair and upgrading of the existing facilities (track, baseball and football) were requested to be the initial priority.

2. Temporary use of the expansion area for soccer fields was requested to continue.
3. Additional / new tennis courts desired for the Lihue area to maintain existing skills and sponsor statewide tennis tournaments.

A second public informational meeting was held on November 30, 1995 at the Lihue Neighborhood Center. Dual use of the tennis courts for roller blading was expressed. The need for a regulation length swimming pool was discussed, with the pool depth established for instructional swimming. Private funding of the hard surfaced area (exclusive use for roller blading) and leasing the area to the YMCA were other items proposed at the meeting.

The private enterprise to develop and operate the hard surface area did not follow-up on the initial proposal. The YMCA's request would be based on County development of the area to their specifications and for their programs. After consideration of the various schemes, the Citizens Advisory Committee established the improvement program.

V. PROBABLE IMPACTS AND MITIGATIVE MEASURES

A. SHORT TERM IMPACTS

Short term impacts, beneficial and adverse, generally result from construction-related activities. Consequently, these impacts are of short duration and should not last longer than the duration of the construction. Although there are presently no immediate commercial or residential neighbors, measures to assure health and safety of users of the existing complex will be provided throughout all phases of construction. During non-work hours the construction work areas will be secured with safety signs and safety devices as required by State and County regulations.

1. Economic Impacts

Construction of the project is expected to be implemented in phases dependent on finances. The construction activity associated with the improvements will result in the generation of construction jobs and income during the period of construction. This construction activity in turn, will result in increased government revenues via gross excise, income, and other taxes generated by constructed spending. The estimated construction cost for the project is 18.1 million.

2. Air Quality Impacts

During construction, the air quality around the project area is expected to be affected by exhaust fumes from construction equipment and the generation of dust. Exhaust emissions from construction equipment are not expected to significantly affect the air quality of the area. The prevailing winds in the area should help to quickly disperse any exhaust gas concentration.

The discharge of dust into the atmosphere may cause concerns while grading, trenching and backfilling activities are performed. Earth material deposited on the roads from trenches, trucks or equipment may also cause dust problems when agitated by traffic. This problem, however, is not anticipated to be significant as the area has been continuously tilled for sugar cane cultivation. If dust is a significant problem, it will be mitigated by the use of appropriate water sprinkling methods, limiting the area being worked at any one time, and immediately seeding of the graded area.

The construction specifications will contain provisions that will require the contractor to minimize dust nuisance at all times and have sufficient equipment and manpower at the project site to accomplish these

requirements. Adequate and proper maintenance of construction equipment and vehicles will help to reduce emissions. The Contractor will be required to have all heavy machinery equipped with proper air pollution abatement devices. Immediate paving of completed areas of construction in addition to the frequent watering of exposed dirt areas and equipment travel ways will help to control fugitive dust concerns. Open body trucks must be covered at all times while transporting materials beyond the property line. Other types of dust controls shall be implemented by the Contractor as required to minimize air borne particles that may cause health problems and/or property damage.

Standard erosion control measures will be applied during construction to meet the requirements of applicable NPDES permit(s). All the mitigation measures to be used shall comply with the State Department of Health Administrative Rules, Title 11, Chapters 59 and 60, as well as all applicable County ordinances relating to excavation and stockpiling procedures.

Burning of clearing and grubbing material will not be allowed during construction of the project. Solid waste generated at the construction site of the proposed project shall be properly disposed in accordance with H.A.R. Title 11, Chapter 11-58.1, "Solid Waste Management Control."

3. Water Quality Impacts

During construction, significant erosion and sedimentation problems are not expected to impact the water quality of the area. However, construction activities can contribute to an increased sediment load into the drainage system especially if a significant storm occurs. Scheduling of construction to implement the temporary erosion control measures as the initial item of work will help to mitigate problems. Adverse water quality impacts can also be minimized by conforming to State and County erosion control standards.

Should discharge into a State or County storm drain system be required, the appropriate discharge permit(s) will be obtained from the respective agency. The project specifications will also require the contractor to obtain the required NPDES permit(s) from the Department of Health (D.O.H.) prior to construction. In accordance with the Hawaii Revised Statutes (H.A.R.) Title 11, Chapter 11-55, "Water Pollution Control," the contractor shall also implement a D.O.H. approved best management practices plan to prevent or minimize the discharge of sediments, debris, and other water pollutants into State waters. In addition, the contractor shall take appropriate measures during construction to prevent fuel, oil and cement products from discharging or leaching into nearby drainage systems or surface waters.

4. Traffic Impacts

During construction of improvements at the site, the construction work force will add to the traffic load during the morning and afternoon peak hours. Local traffic may experience momentary delays throughout the day as construction-related vehicles use existing roads to transport materials and equipment to the site. Additional traffic impacts will occur when the project's roadway widening joins the existing highway.

Short term traffic impacts will be mitigated by providing traffic controls, traffic safety precautions, and adequate public notice of construction activities. An approved traffic control plan will be implemented to ensure the most efficient movement of traffic through the project area. In addition, Kapule Highway (located adjacent to the project site) may help to alleviate some of the temporary traffic increases since it is a high capacity roadway.

5. Noise Impacts

Unavoidable short-term noise impacts are expected during construction activities. Impact to most of the adjacent areas will be minimal as they include agricultural lands (sugar cane), a base yard (Lihue Industrial Park), golf course (Kiele G.C.) and the Veterans Recreation Hall.

During site preparation, clearing, and construction activities, an increase of ambient noise is inevitable. Construction-related noise will be intermittent rather than continuous throughout the construction period and will cease upon completion of the project. Unnecessary noise should be reduced through the use of mufflers on construction equipment/trucks, and through the adequate and proper maintenance of construction equipment and vehicles. Although the noise level increase during construction is unavoidable, construction activities will be restricted to normal daylight working hours. The community will be given ample notice of construction activities and the elevated noise levels to be anticipated.

Construction activities will be coordinated with the Department of Health to minimize noise generation and shall comply with the provisions of Title 11, Chapter 42, "Vehicular Noise Control," and Chapter 46, "Community Noise Control" of the Hawaii Administrative Rules (H.A.R.). The Contractor will be required to obtain a noise permit in accordance with H.A.R. Title 11, Chapter 46 for construction activities proposed during regular daylight working hours. Should any night work be required, the Contractor shall obtain a noise variance from the Department of Health pursuant to H.A.R. Title 11, Chapter 46.

6. Biological Impacts

There are no known rare or endangered species of flora or fauna at the project site. The site has been cultivated in sugar cane for many years.

7. Archaeological Impacts

According to the State Historic Preservation Division, construction of the proposed project is not anticipated to impact any significant historic sites. The project area has previously been disturbed due to agricultural uses and it would be highly unlikely that significant historic sites exist. However, should evidence of historic sites, including human burials, be encountered during construction, all activities in the area of the find shall cease and the State Historic Preservation Division shall be notified immediately. The Division shall be provided sufficient time to assess the find and recommend appropriate mitigation measures. Any archaeological data recovery work that may be recommended by the Division shall be completed by a qualified archaeologist prior to the commencement of work in the area of the find. Completion of the mitigation work shall be confirmed by the Division, and a report of the findings shall be prepared and submitted to the Division for review and acceptance. If human skeletal remains are inadvertently encountered during construction, procedures outlined in the Hawaii Revised Statutes 6E-43.6 shall be followed.

8. Land Use

The proposed stadium expansion is consistent with State and County land use designations. Present and future land uses for the Vidinha Stadium property are intended for recreational uses. No land acquisition will be required as a part of the proposed project since the vacant land parcel was previously acquired by the County of Kauai for the purposes of expanding the stadium facilities. The proposed project will be in compliance with the Coastal Zone Management objectives and policies in accordance with Chapter 205A, Hawaii Revised Statutes.

B. LONG TERM IMPACTS

Long term impacts, beneficial and adverse, will result from the implementation and operation of the project. The impacts associated with these actions are identified and discussed in this section.

1. Economic Impacts

The project is intended to allow the County of Kauai to sponsor athletic tournaments, trade shows and other events that have state-wide or even national attraction. It is desired that the revenue generated at the events support the projects annual operating expenses.

Events with state-wide implications will attract off-island visitors who will require transportation, food and shelter. The magnitude of this secondary impact will be based on the schedule and promotion of the event. Repeat tournaments and return visitors will depend on the events' promoters, the program and hospitality.

2. Air Quality Impacts

The long-term environmental impacts on the ambient air quality are anticipated to be similar to present conditions. Odors and airborne particles from vehicles which ingress/egress the project site will be mitigated by implementing traffic flow improvements such as use of police controllers for larger events and road widening at the intersection.

Agricultural associated nuisances may impact the project area since existing sugarcane fields are located near to the stadium complex. However, the proposed stadium expansion project should not incur impacts greater than those already experienced by the existing stadium facilities. The nearby agricultural area will also be greatly reduced upon completion of the Molokoa Subdivision Expansion and other planned government facilities which would provide some buffer area. Should impacts from agricultural-related nuisances be excessive, the County of Kauai will attempt to coordinate events with the Lihue Plantation Company (owner of the adjacent sugarcane fields).

Gaseous chlorine may be used for disinfection purposes at the proposed swimming pool. In order to prevent any accidental chlorine gas releases, precautionary measures shall be taken by trained maintenance personnel when the chlorine is transported, used or handled. A non-gaseous chlorine

system will also be considered for implementation at the proposed swimming pool.

3. Water Quality Impacts

No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project. Storm water runoff will be conveyed by the proposed and existing drainage systems following the approval of all necessary connection and discharge permits. Water borne particles will be minimized by ground cover.

The proposed project is also not expected to adversely affect the ground water system since cesspools or injection wells are not a part of this project.

4. Biological Impacts

The project area is not considered to be a sensitive wildlife habitat area, nor does the site contain any endangered species of plants or animals. The project site and surrounding area has been cultivated for sugar cane for the past decade. Therefore, no adverse long-term impacts are anticipated from the proposed action.

The proposed 90-foot high field lights for the baseball field could potentially affect the federally listed endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*), Newell's shearwater (*Puffinus newelli*) and the wedge tailed shearwater (*Puffinus pacificus*). Although these migratory bird species are not known to inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas have the potential to become disoriented by bright lights, causing them to fall to the ground. Thus, the proposed field lighting will be designed to provide sufficient cutoff distribution for glare control.

5. Noise Impacts

Long-term noise impacts associated with the new facility were investigated by Y. Ebisu & Associates, Ltd. According to this acoustic study, the proposed noise levels along the existing roadways that service the stadium traffic are expected increase insignificantly as a result of the proposed stadium expansion project. Instead, a significant increase in future traffic noise levels is expected from traffic that is not associated with the proposed project. As a result, traffic noise mitigation measures may be required in the future by others.

Special aircraft noise mitigation measures are not expected to be required as a part of the stadium expansion project since the proposed outdoor recreational activities are expected to be compatible with the existing and forecasted aircraft noise contours for Lihue Airport. In addition, special aircraft noise mitigation measures should not be necessary for the proposed gymnasium complex if uses are for recreational sports activities or events. However, if the gymnasium is planned to be used for other activities such as assemblies, concerts, etc., the use of closure and air-conditioning is recommended to minimize disruptions from aircraft noise. Details of the acoustic study have been included in APPENDIX A.

Additional noise is expected to be produced from the proposed tennis courts and swimming pool area. Should field lights be installed for the baseball field, additional noise may be generated if evening games are held. However, noise impacts from the proposed stadium expansion is not expected to be greater than the noise already produced from the existing stadium complex when large events are held.

6. Utilities

Utilities/Infrastructure supply, sewage disposal, drainage facilities and electrical demands were addressed in the "Facilities Planning Report" for the Vidinha Stadium Complex Expansion dated May 1995. Utilities/Infrastructure located outside of the project property boundaries are sufficient to accommodate the additional requirements.

7. Visual Impacts

The use of the proposed field lights during night games is not expected to have adverse impacts on the surrounding vicinity of the stadium complex. The nearest residential property is located approximately 1,200 feet from the project site. Sugar cane fields are located to the west of the project site, while the Kiele Golf Course is located to the east. The Lihue Industrial Park, Unit 1 lies immediately to the south, and the recently completed Veteran's Center is located to the north. Since the golf course, industrial park and Veteran's Center are typically in operation only during normal daytime working hours, these surrounding properties are not expected to be adversely impacted from the field lights to be used during night time games.

Since the existing baseball field is located approximately 2,200 feet from the south west end of the Lihue airport runway, the installation of the proposed field lights will be coordinated with the Federal Aviation Administration. The field lights will be in compliance with all applicable FAA requirements and the

appropriate permits will be acquired to ensure the 90-foot high poles will not adversely impact safe navigation for inbound or outbound flights.

The new field lights to be installed at the existing baseball field should not adversely affect motorists traveling along Kapule Highway since field lighting already exists for the adjacent football stadium. The field lighting system will be designed to provide the optimum illumination levels for the baseball field while minimizing adverse effects to motorists traveling along Kapule Highway through the use of glare controls.

8. Traffic

A Traffic Impact Assessment Report (TIAR) has been prepared for the proposed Vidinha Stadium Complex Expansion project (included in APPENDIX B). This study will help to serve as the basis for additional traffic studies for the overall master plan of the proposed Judiciary and police station facilities.

The proposed Vidinha Stadium Complex Expansion project will be coordinated with the respective agencies of the proposed County Bus Facility and the Kauai Police Station (County of Kauai), and the new Kauai Judiciary Complex (State of Hawaii) to be constructed nearby. The coordination and integration of all of these projects will help to ensure proper traffic circulation and adequate parking facilities.

The proposed Vidinha Stadium Complex Expansion project includes provisions for an additional parking facility where the existing soccer field is located. Overflow parking could also be provided at the parking areas for the proposed bus facility, police station and Judiciary building. A coordination of these parking areas is currently being developed by the County of Kauai's Department of Public Works.

VI. ALTERNATIVES TO THE PROPOSED ACTION

A. ALTERNATIVE SITE

The project site was obtained specifically to expand the stadium complex for recreational uses. The adjacent areas (per the Lihue-Hanamaulu Master Plan) will be developed for additional public facilities. These include the Veterans Center, State Judiciary Complex, Police Headquarters, and YMCA/Teen Center. The project will complement and support many activities generated by these public facilities. The project site is presently vacant and unused. Temporary use of the site for a fairground is under consideration. The site is too valuable to be reserved for intermittent uses. Selection of an alternate site is not feasible as this project is to expand the existing complex.

B. NO ACTION ALTERNATIVE

A no action alternative would not accomplish the objectives of the Division of Parks & Recreation of the Kauai Department of Public Works. These objectives include the offering of recreation activities when the need exists. The project will house facilities to support identified recreation/athletic needs: tennis courts, swimming pool and gymnasium.

VII. DETERMINATION

In accordance with the Hawaii Revised Statutes, Chapter 343, The Department of Public Works, County of Kauai anticipates that the proposed project will not have significant impacts to the environment. Consequently, this document constitutes an anticipated "Finding of No Significant Impact," (FONSI) and an Environmental Impact Statement will not be required for the proposed project.

VIII. REASONS SUPPORTING THE RECOMMENDATION

In considering the significance of potential environmental effects, the applicant has considered the sum of effects on the quality of the environment and evaluated the overall cumulative effects of the proposed action. The applicant has considered every phase of the proposed action, the expected consequences, both primary and secondary and the cumulative as well as the short- and long-term effects of the proposed action. As a result of these considerations, the applicant has determined that:

- ***The proposed action does not involve an irrevocable commitment or loss of or destruction of any natural cultural resource;***

There are no natural or cultural resources associated with the project site. According to the State Historic Preservation Division, the project area has previously been disturbed due to extensive agricultural uses for sugar cultivation. Thus, it would be highly unlikely that significant historic sites exist at the project site.

- ***The proposed action does not curtail the range of beneficial uses of the environment:***

The proposed project is consistent with the County's General Plan and the Department of Public Works goal to offer recreational activities not available through other avenues and would not curtail beneficial uses of the environment in the area. The proposed project will be compatible with the uses of the surrounding area.

- ***The proposed action is in concert with the state's long-term environmental policies, goals and guidelines as expressed in Chapter 343, HRS, and any revisions and amendments thereto, court decisions and executive orders:***

The proposed project is consistent with the State Land Use Plan which is in concert with all applicable policies, goals and guidelines. No long-term environmental conflicts are foreseen.

- ***The proposed action does not substantially affect the economic or social welfare of the community or state:***

The economic impact will be affected by the short-term, construction related activities. Upon completion of the project, economic opportunities may

increase due to sponsorship of athletic tournaments or trade shows that have statewide or national attention.

- ***The proposed action does not involve substantial secondary impacts, such as population changes or effects on public facilities:***

The proposed project will not result in an increase of population in the area as development is controlled by land use and general plan policies. Normal population growth should not be affected.

- ***The proposed action does not substantially affect public health:***

Construction activities will be regulated to minimize noise, dust and erosion concerns. Measures to assure the health and safety of users of the existing complex will be provided throughout all phases of construction.

- ***The proposed action does not involve a substantial degradation of environmental quality:***

The proposed project does not involve a substantial degradation of environmental quality since the existing physical aspects of the surrounding area will be preserved.

- ***The proposed action is individually limited and cumulatively, does not have a considerable effect upon the environment or involve a commitment for larger actions:***

The proposed project is part of the cumulative development of the Department of Public Works Vidinha Stadium Complex. Use is regulated by the County of Kauai, Division of Parks & Recreation. Approval of the project does not involve a County commitment for any larger action.

- ***The proposed action does not substantially affect rare, threatened or endangered species or habitats:***

There are no known rare, threatened or endangered species or habitats associated with the project site. The project area has previously been disturbed from extensive agricultural uses.

The proposed 90-foot high field lights for the baseball field could potentially affect the federally listed endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*), Newell's shearwater (*Puffinus newelli*) and the wedge tailed shearwater (*Puffinus pacificus*). Although these migratory bird

species are not known to inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas have the potential to become disoriented by bright lights, causing them to fall to the ground. Thus, the proposed field lighting will be designed to provide sufficient cutoff distribution for glare control.

- ***The proposed action does not detrimentally affect air or water quality or ambient noise levels:***

Development of the project site is not expected to substantially increase ambient noise levels since the proposed stadium expansion conforms to existing activities.

Short-term impacts on air and water quality, as well as noise, will occur during the construction period, but will be mitigated by normal construction practices and will be regulated by the project plans and specifications.

- ***The proposed action does not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary or coastal waters.***

The proposed project is not adjacent to the shoreline and is located outside of the tsunami inundation line.

Flooding or erosion problems are not anticipated.

- ***The proposed action does not substantially affect scenic vistas and view planes identified in County or State plans or studies***

No scenic vistas or view planes should be affected by the proposed project. The new field lights for the baseball field is not expected to have adverse impacts on the surrounding vicinity of the stadium complex since the nearest residential property is located approximately 1,200 feet from the project site. In addition, sugar cane fields are located to the west of the project site, while the Kiele Golf Course is located to the east. The Lihue Industrial Park, Unit 1 lies immediately to the south, and the recently completed Veteran's Center is located to the north.

The installation of the proposed 90-foot high field lights will be coordinated with the Federal Aviation Administration. The field lights will be in compliance with all applicable FAA requirements and the appropriate permits will be acquired to ensure the 90-foot high poles will not adversely impact safe navigation for inbound or outbound flights. The field lights will also be designed to provide cutoff distribution for glare control.

- ***The proposed action does not require substantial energy consumption:***

No substantial amount of energy will be required for the proposed improvements to the Vidinha Stadium Complex expansion. Following construction, the lighting requirements for the new facilities (such as the baseball field) will have minimal effects on the stadium's overall energy consumption.

IX. AGENCIES CONSULTED DURING THE PREPARATION OF THE EA

The following agencies were consulted during the pre-assessment consultation period for the Draft EA. A copy of the responses received during this pre-assessment consultation period are included in Appendix C.

A. FEDERAL GOVERNMENT

U.S. Department of Agriculture, Resources Conservation Service
U.S. Department of the Interior, Fish and Wildlife Services
U.S. Department of Transportation, Federal Aviation Administration, Kauai Sector Field Office

B. STATE GOVERNMENT

Department of Accounting and General Services
Department of Agriculture
Department of Business, Economic Development and Tourism
Department of Hawaiian Home Lands
Department of Health, Environmental Management Division
Department of Land and Natural Resources
Department of Land and Natural Resources, State Historic Preservation Division
Department of Transportation
Department of Transportation - Highways Division, Kauai District
Department of Transportation - Airports Division, Lihue Airport
Office of State Planning

C. COUNTY OF KAUAI

Department of Planning
Department of Water

D. OTHER PARTIES

Kauai City Council - Special Advisory Committee on Parks
Kauai Electric
GTE Hawaiian Tel
Kauai Veterans Center
Kauai Lagoons Golf Club
Lihue Plantation Company, Ltd. (AMFAC Sugar Kauai)
Hawaii Thousand Friends
Sierra Club Hawaii Chapter

Lihue Industrial Association
The Honorable Jonathan Chun, State Senator, 7th District
The Honorable Ezra Kanofo, State Representative, 13th District

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Honolulu, Hawaii 96813

Senator Jonathan Chun
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Fish & Wildlife Services
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Honolulu, Hawaii 96766

REFERENCES

City and County of Honolulu, Department of Land Use, Land Use Ordinance Zoning Map No. 6, Ord. No.: 86-109, October 22, 1986.

Federal Emergency Management Agency, Flood Insurance Rate Map, City & County of Honolulu, Hawaii, Community Panel Numbers 150001 and 0115C, Revised September 28, 1990.

Hawaii Revised Statutes, Chapter 343, Environmental Impact Statements.

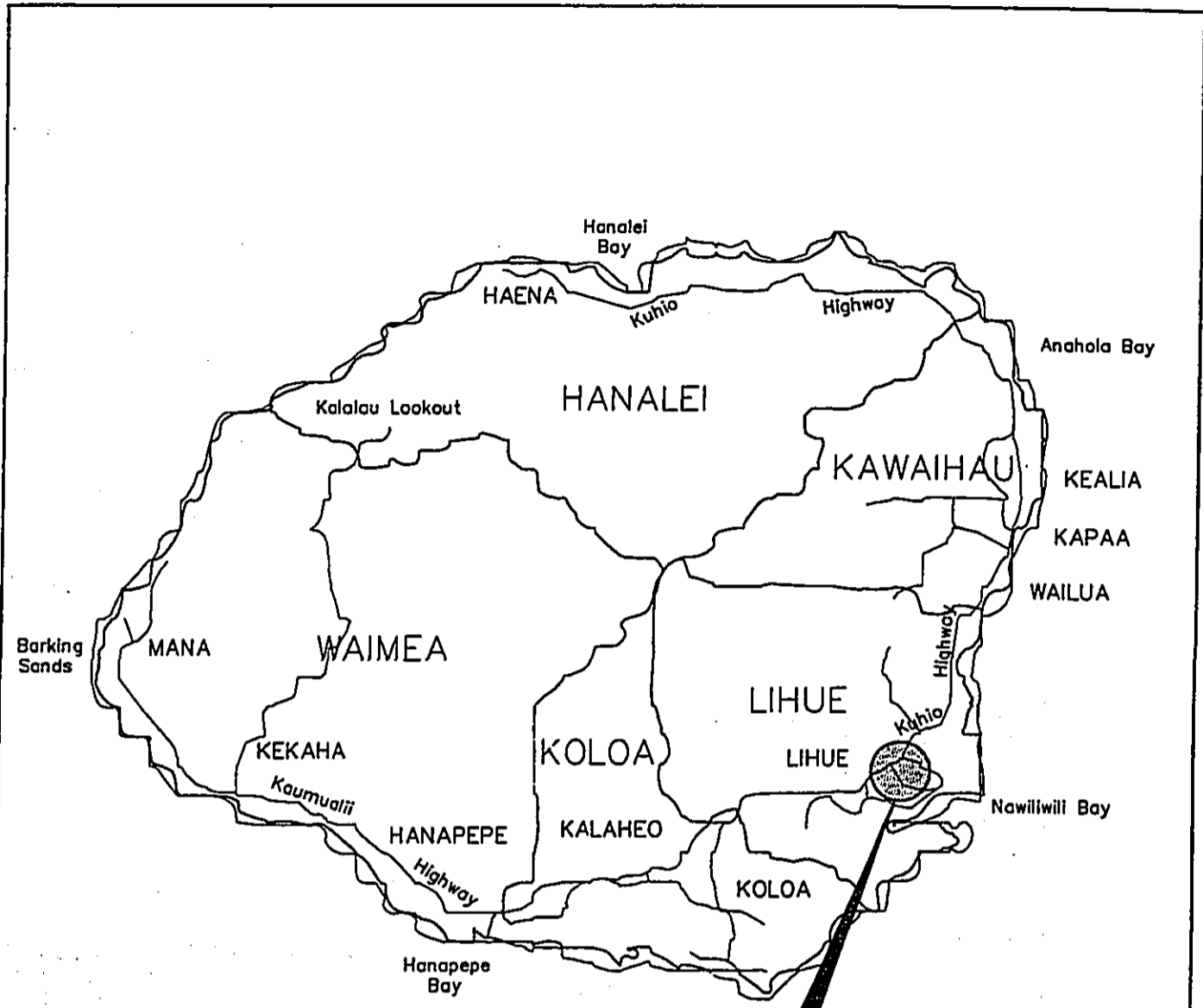
Hawaii Revised Statutes, Chapter 344, State Environmental Policy.

State of Hawaii, Department of Business, Economic Development and Tourism, Census Tracts, 1990.

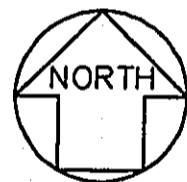
State of Hawaii, Office of Environmental Quality Control, "A Guidebook for the Hawaii State Environmental Review Process", July 1991.

U.S. Dept. of Agriculture Soil Conservation Service, Soil Survey of Island of Oahu, State of Hawaii, August 1972.

EXHIBITS



PROJECT LOCATION



ISLAND OF KAUAI

NOT TO SCALE

PM: STY
 OPR: MNN / LMUW
 REV: 09/18/98

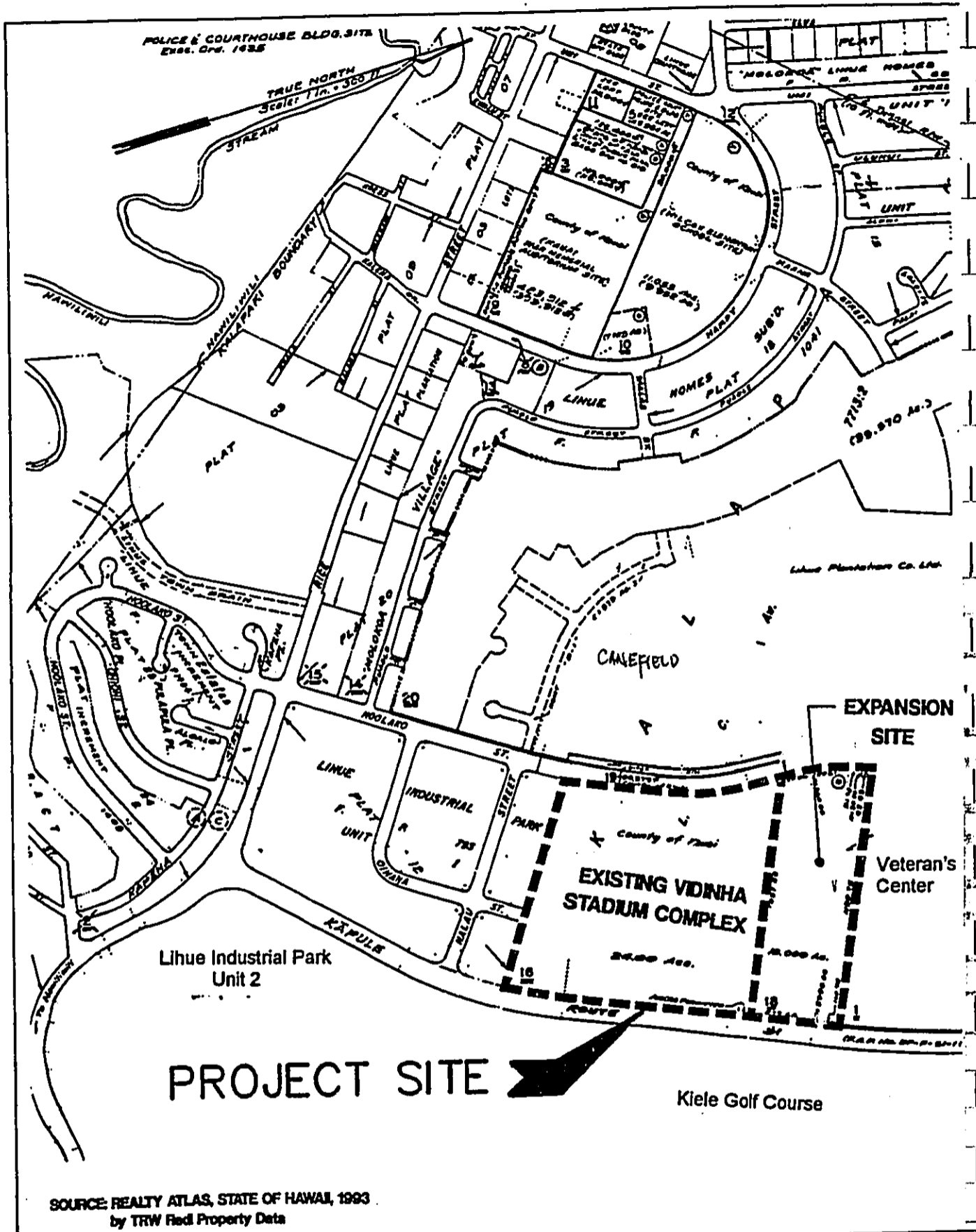
FILE: EX1
 SCALE: 1=1
 BEG:

VIDINHA STADIUM COMPLEX EXPANSION

LOCATION MAP

AKINAKA & ASSOCIATES, LTD.

EXHIBIT
1



PM: STY
 OPR: MNN / LMUW
 REV: 09/18/98

FILE: EX2
 SCALE: 1=1
 BEG:

SOURCE: REALTY ATLAS, STATE OF HAWAII, 1993
 by TRW Real Property Data

PROJECT SITE

EXHIBIT
2

VIDINHA STADIUM COMPLEX EXPANSION
 VICINITY MAP
 AKINAKA & ASSOCIATES, LTD.

EXISTING SUGAR CANE

FUTURE HOOLAKO ST. E

EXIST

(FUTURE E

EXISTIN
VETERAN
CENTER

VIDINHA STADIUM COMPLEX

HOOLAKO

STREET

EXISTING PARKING LOT

PROPOSED
TENNIS
COURTS

PROPOSED
SWIMMING
POOL

PROPOSED
GYMNASIUM

EXISTING LIHUE
INDUSTRIAL PARK

STREET

HANA
STREET

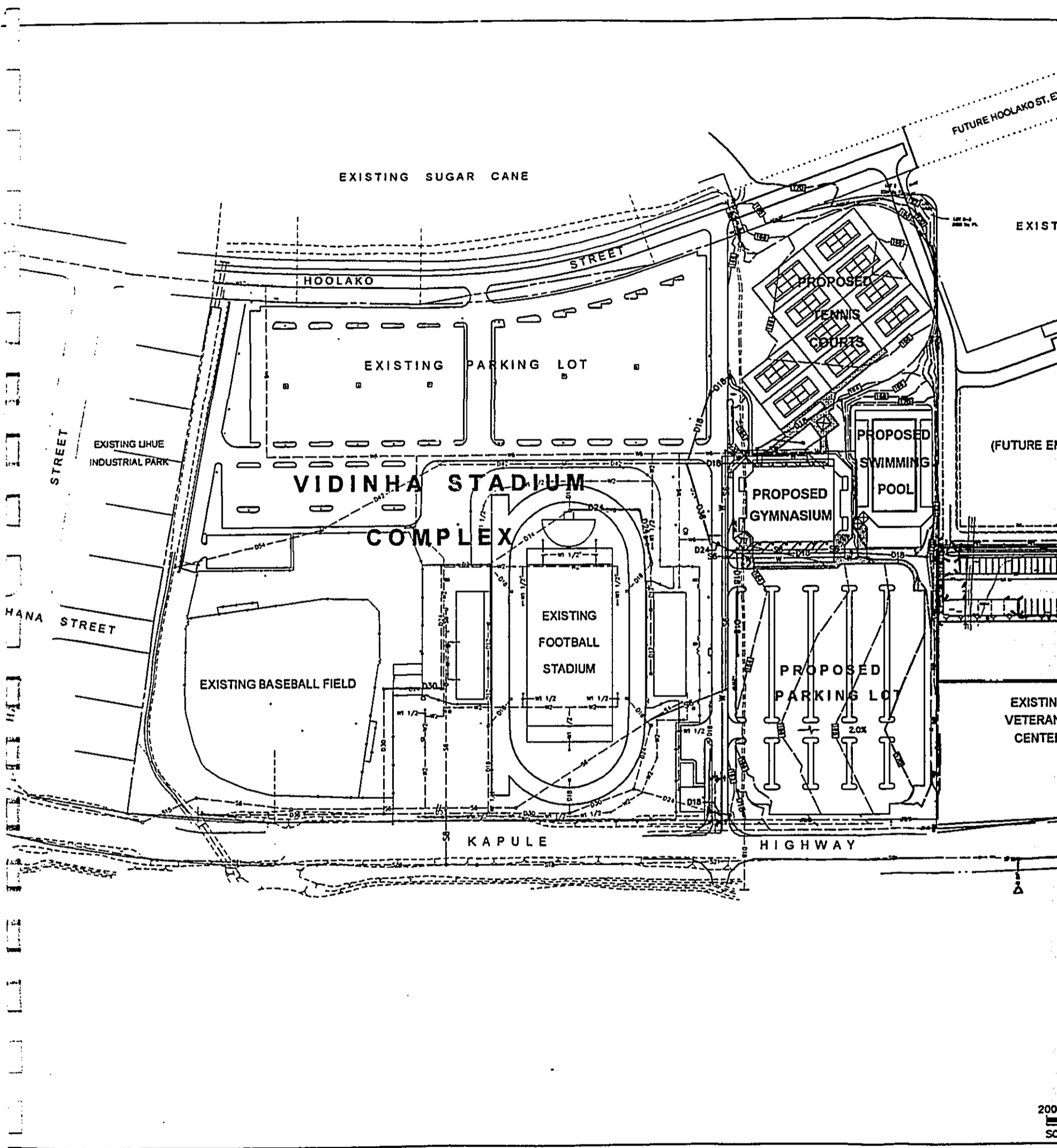
EXISTING BASEBALL FIELD

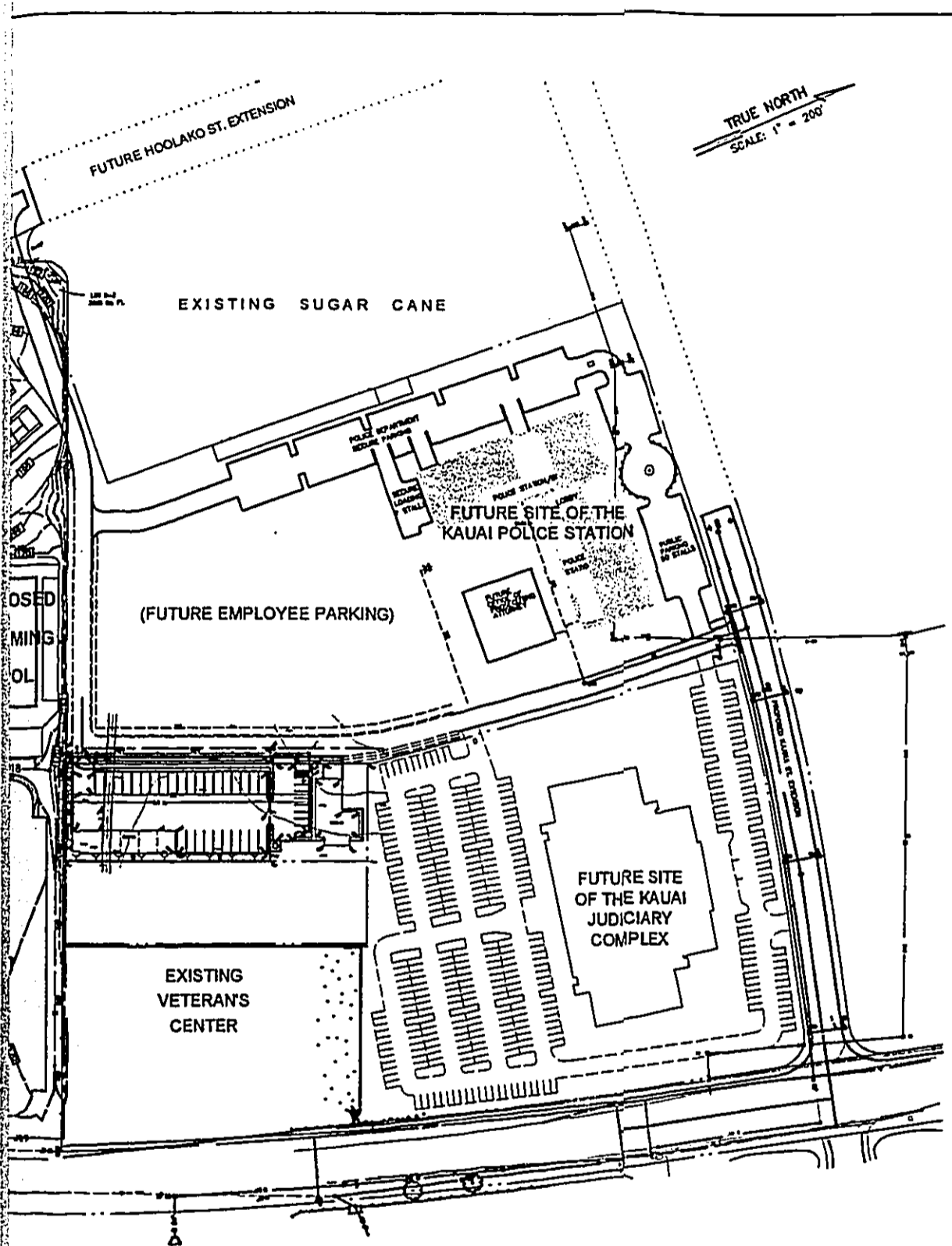
EXISTING
FOOTBALL
STADIUM

PROPOSED
PARKING LOT

KAPULE

HIGHWAY





200 0 200 400
 SCALE: 1" = 200'

AKINAKA & ASSOCIATES, LTD. CONSULTING ENGINEERS
VIDINHA STADIUM COMPLEX EXPANSION LIHUE, KAUAI, HAWAII TAX MAP KEY: 3-6-02: 15 & 18
SITE PLAN
MAY 1995 JANUARY 1998
EXHIBIT 3

APPENDIX A

**ACOUSTIC STUDY
FOR THE
VIDINHA STADIUM COMPLEX EXPANSION
LIHUE, KAUAI, HAWAII**

Prepared for:

AKINAKA & ASSOCIATES, LTD.

Prepared by:

**Y. EBISU & ASSOCIATES
1126 12th Avenue, Room 305
Honolulu, Hawaii 96816**

AUGUST 1995

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CHAPTER I. SUMMARY

The existing and future traffic noise levels in the vicinity of the proposed Vidinha Stadium Complex Expansion Project on the island of Kauai, Hawaii were evaluated for their potential impact on present and future noise sensitive areas. The future traffic noise levels along the primary access roadways to the project were calculated for the Year 2001.

Along the existing roadways which are expected to service the project traffic, noise levels are expected to increase by 0 to 0.5 Ldn between CY 1995 and CY 2001 as a result of project traffic. These increases in traffic noise levels associated with project traffic are insignificant. Traffic noise increases due to project traffic are predicted to be less than the increases caused by non-project traffic on all roadways, and are expected to range from 0.9 to 5.4 Ldn. These increases in traffic noise levels associated with non-project traffic are considered to be significant. With or without the project, future traffic noise levels are expected to increase significantly along the roadways servicing the project, and traffic noise mitigation measures may be required by others.

Based on previously published FAR Part 150 aircraft noise contours for Lihue Airport, the project site is located outside of the 65 Ldn noise contour. The FAR Part 150 noise contours for Lihue Airport are believed to be out of date. More recently developed airport noise contours for CY 1994 indicate that the 65 Ldn noise contour crosses the center of the project site. By CY 2010, however, the 65 Ldn contour is expected to move outside the recreational areas of the project site. The outdoor recreational activities (tennis and swimming) planned on the project site should be compatible with the existing and forecasted aircraft noise contours for Lihue Airport, and special aircraft noise mitigation measures should not be required for these activities.

The site of the planned gymnasium, is located on the existing

65 Ldn aircraft noise contour. By CY 2010, aircraft noise levels at the gymnasium site should decrease to the levels of approximately 61 to 62 Ldn. Special aircraft noise mitigation measures (other than the normal Public Address System) are not required for the planned gymnasium if it is used for recreational sports activities or events. However, if the gymnasium is planned to be used for assemblies, theatrical plays, or music concerts, use of closure and air conditioning is recommended to minimize the disruptions which can be caused by the aircraft noise events.

Unavoidable, but temporary, noise impacts may occur during the construction of the proposed project. Because construction activities are predicted to be audible at adjoining properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases. For this reason, the use of quiet equipment and construction curfew periods as required under the State Department of Health noise regulations are recommended to minimize construction noise impacts.

CHAPTER II. PURPOSE

The objectives of this study were to describe the existing and future noise environment in the environs of the proposed Vidinha Stadium Complex Expansion Project on the island of Kauai, Hawaii. Traffic noise level increases and impacts associated with the proposed development were to be determined within the project site as well as along the public roadways expected to service the project traffic. A specific objective was to determine future traffic noise level increases associated with both project and non-project traffic, and the potential noise impacts associated with these increases. Assessments of possible impacts from noise resulting from fixed and rotary wing aircraft operations at nearby Lihue Airport and from short term construction noise at the project site were also included in the noise study objectives. Recommendations for minimizing these noise impacts were also to be provided as required.

CHAPTER III. NOISE DESCRIPTORS AND THEIR RELATIONSHIP TO LAND USE COMPATIBILITY

The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (Ldn). This descriptor incorporates a 24-hour average of instantaneous A-Weighted Sound Levels as read on a standard Sound Level Meter. By definition, the minimum averaging period for the Ldn descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the Ldn descriptor. A more complete list of noise descriptors is provided in APPENDIX B to this report.

TABLE 1, derived from Reference 1, presents current federal noise standards and acceptability criteria for residential land uses. Land use compatibility guidelines for various levels of environmental noise as measured by the Ldn descriptor system are shown in FIGURE 1. As a general rule, noise levels of 55 Ldn or less occur in rural areas, or in areas which are removed from high volume roadways. In urbanized areas which are shielded from high volume streets, Ldn levels generally range from 55 to 65 Ldn, and are usually controlled by motor vehicle traffic noise. Residences which front major roadways are generally exposed to levels of 65 Ldn, and as high as 75 Ldn when the roadway is a high speed freeway. Due to noise shielding effects from intervening structures, interior lots are usually exposed to 3 to 10 Ldn lower noise levels than the front lots which are not shielded from the traffic noise.

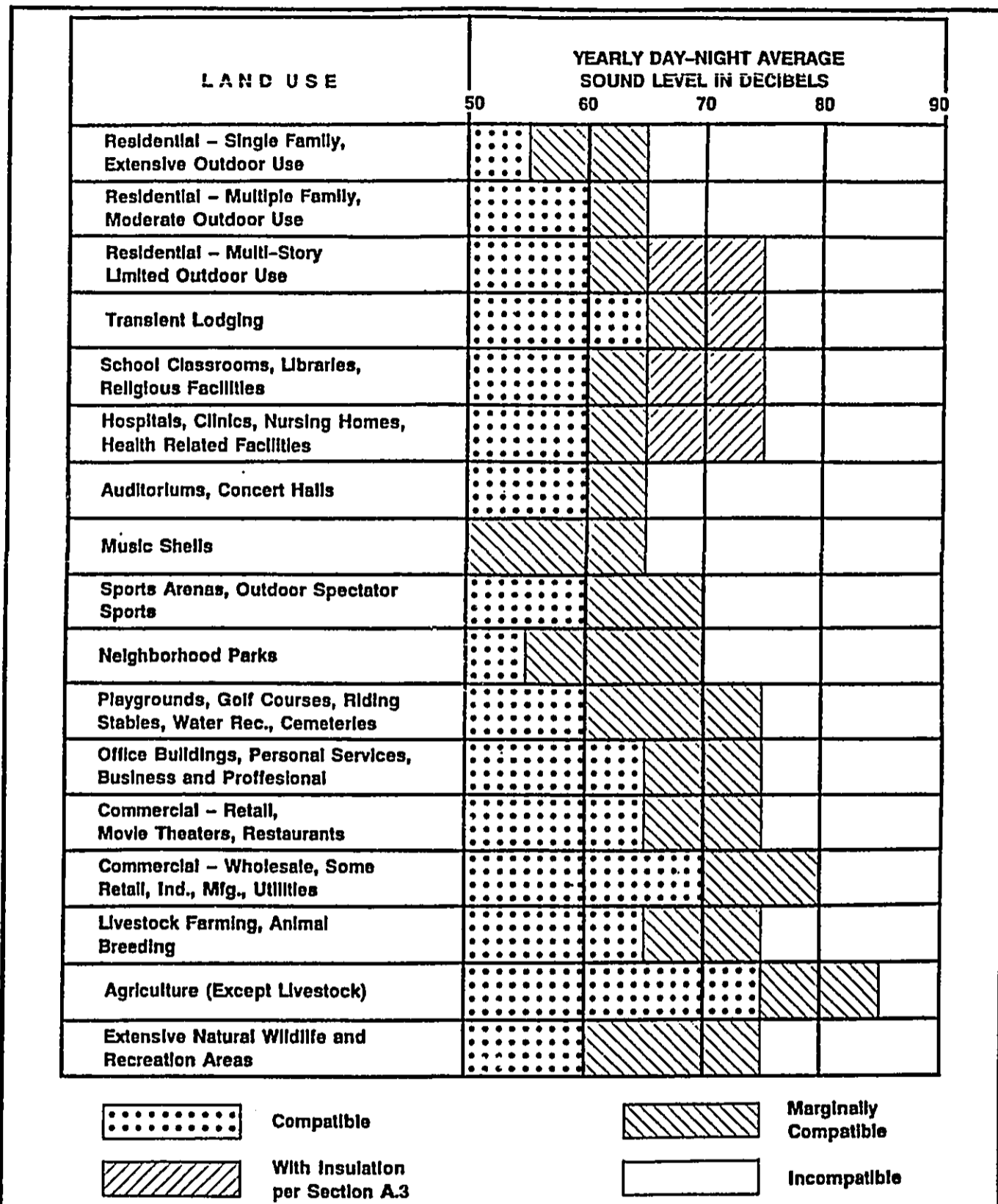
For the purposes of determining noise acceptability for funding assistance from federal agencies (FHA/HUD and VA), an exterior noise level of 65 Ldn or lower is considered acceptable. This standard is applied nationally (Reference 2), including Hawaii. Because of our open-living conditions, the predominant use of naturally ventilated dwellings, and the relatively low exterior-to-

TABLE 1
EXTERIOR NOISE EXPOSURE CLASSIFICATION
(RESIDENTIAL LAND USE)

NOISE EXPOSURE CLASS	DAY-NIGHT SOUND LEVEL	EQUIVALENT SOUND LEVEL	FEDERAL (1) STANDARD
Minimal Exposure	Not Exceeding 55 Ldn	Not Exceeding 55 Leq	Unconditionally Acceptable
Moderate Exposure	Above 55 Ldn But Not Above 65 Ldn	Above 55 Leq But Not Above 65 Leq	Acceptable(2)
Significant Exposure	Above 65 Ldn But Not Above 75 Ldn	Above 65 Leq But Not Above 75 Leq	Normally Unacceptable
Severe Exposure	Above 75 Ldn	Above 75 Leq	Unacceptable

Notes: (1) Federal Housing Administration, Veterans Administration, Department of Defense, and Department of Transportation.

(2) FHWA uses the Leq instead of the Ldn descriptor. For planning purposes, both are equivalent if: (a) heavy trucks do not exceed 10 percent of total traffic flow in vehicles per 24 hours, and (b) traffic between 10:00 PM and 7:00 AM does not exceed 15 percent of average daily traffic flow in vehicles per 24 hours. The noise mitigation threshold used by FHWA for residences is 67 Leq.



LAND USE COMPATIBILITY WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVEL AT A SITE FOR BUILDINGS AS COMMONLY CONSTRUCTED
 (Source: American National Standards Institute S12.40-1990)

FIGURE 1

interior sound attenuation afforded by these naturally ventilated structures, an exterior noise level of 65 Ldn does not eliminate all risks of noise impacts. Because of these factors, and as recommended in Reference 3, a lower level of 55 Ldn is considered as the "Unconditionally Acceptable" (or "Near-Zero Risk") level of exterior noise. However, after considering the cost and feasibility of applying the lower level of 55 Ldn, government agencies such as FHA/HUD and VA have selected 65 Ldn as a more appropriate regulatory standard.

For aircraft noise, the State Department of Transportation, Airports Division, has recommended that 60 Ldn be used as the common level for determining land use compatibility in respect to noise sensitive uses near its airports. TABLE 2 presents the current land use compatibility guidelines which have been recommended for use around the Hawaii State airports. It should be noted that for non-residential land uses, and specifically for recreational activities, aircraft noise levels greater than 60 Ldn and as high as 75 Ldn are considered to be compatible or marginally compatible in both FIGURE 1 and TABLE 2.

Table 2 State Department of Transportation Recommendations for Local Land Use Compatibility Expressed in Yearly Day-Night Average Sound Levels (Ldn).

TYPE OF LAND USE	Yearly Day-Night Average Sound Level					
	< 60	60-65	65-70	70-75	75-80	80-85
RESIDENTIAL:						
Low density residential, resorts, and hotels (outdoor facil.)	Y(a)	N(b)	N	N	N	N
Low density apartment with moderate outdoor use	Y	N(b)	N	N	N	N
High density apartment with limited outdoor use	Y	N(b)	N(b)	N	N	N
Transient lodgings with limited outdoor use	Y	N(b)	N(b)	N	N	N
PUBLIC USE:						
Schools, day-care centers, libraries, and churches	Y	N(c)	N(c)	N(c)	N	N
Hospitals, nursing homes, clinics, and health facilities	Y	Y(d)	Y(d)	Y(d)	N	N
Indoor auditoriums and concert halls	Y(c)	Y(c)	N	N	N	N
Government services and office buildings serving the public .	Y	Y	Y(d)	Y(d)	N	N
Transportation and Parking	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
COMMERCIAL AND GOVERNMENT USE:						
Offices - government, business, and professional	Y	Y	Y(d)	Y(d)	N	N
Wholesale and retail - bldg.mater., hardware, & heavy equip..	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
Airport businesses - car rental, lei stands, ticketing, etc..	Y	Y	Y(d)	Y(d)	N	N
Retail, restaurants, shopping centers, financial inst., etc..	Y	Y	Y(d)	Y(d)	N	N
Power plants, sewage treatment plants, and base yards	Y	Y	Y(d)	Y(d)	Y(d)	N
Studios without outdoor sets, broadcasting, prod. facilities.	Y(c)	Y(c)	N	N	N	N
MANUFACTURING, PRODUCTION AND STORAGE:						
Manufacturing, general	Y	Y	Y(d)	Y(d)	Y(d)	N
Photographic and optical	Y	Y	Y(d)	Y(d)	N	N
Agriculture (except livestock) and forestry	Y	Y(e)	Y(e)	Y(e)	Y(e)	Y(e)
Livestock farming and breeding	Y	Y(e)	Y(e)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
RECREATIONAL USE:						
Outdoor sports arenas and spectator sports	Y	Y(f)	Y(f)	N	N	N
Outdoor music shells, amphitheaters	Y(f)	N	N	N	N	N
Nature exhibits and zoos, neighborhood parks	Y	Y	Y	N	N	N
Amusements, beach parks, active playgrounds, etc.	Y	Y	Y	Y	N	N
Public golf courses, riding stables, cemeteries, gardens, etc.	Y	Y	N	N	N	N
Professional/resort sport facilities, media event fac., etc..	Y(f)	N	N	N	N	N
Extensive natural wildlife and recreation areas	Y(f)	N	N	N	N	N

Numbers in parentheses refer to notes.

KEY TO TABLE 2:

Y(Yes) = Land Use and related structures compatible without restrictions.
 N(No) = Land Use and related structures are not compatible and should be prohibited.

Table 2 (Continued). State Department of Transportation Recommendations for Local Land Use Compatibility Expressed in Yearly Day-Night Average Sound Levels (Ldn).

NOTES FOR TABLE 2:

(a) A noise level of 60 Ldn does not eliminate all risks of adverse noise impacts from aircraft noise. However, the 60 Ldn planning level has been selected by the State Airports Division as an appropriate compromise between the minimal risk level of 55 Ldn and the significant risk level of 65 Ldn.

(b) Where the community determines that these uses must be allowed, Noise Level Reduction (NLR) measures to achieve interior levels of 45 Ldn or less should be incorporated into building codes and be considered in individual approvals. Normal local construction employing natural ventilation can be expected to provide an average NLR of approximately 9 dB. Total closure plus air conditioning may be required to provide additional outdoor to indoor NLR, and will not eliminate outdoor noise problems.

(c) Because the Ldn noise descriptor system represents a 24-hour average of individual aircraft noise events, each of which can be unique in respect to amplitude, duration, and tonal content, the NLR requirements should be evaluated for the specific land use, interior acoustical requirements, and properties of the aircraft noise events. NLR requirements should not be based solely upon the exterior Ldn exposure level.

(d) Measures to achieve required NLR must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

(e) Residential buildings require NLR. Residential buildings should not be located where noise is greater than 65 Ldn.

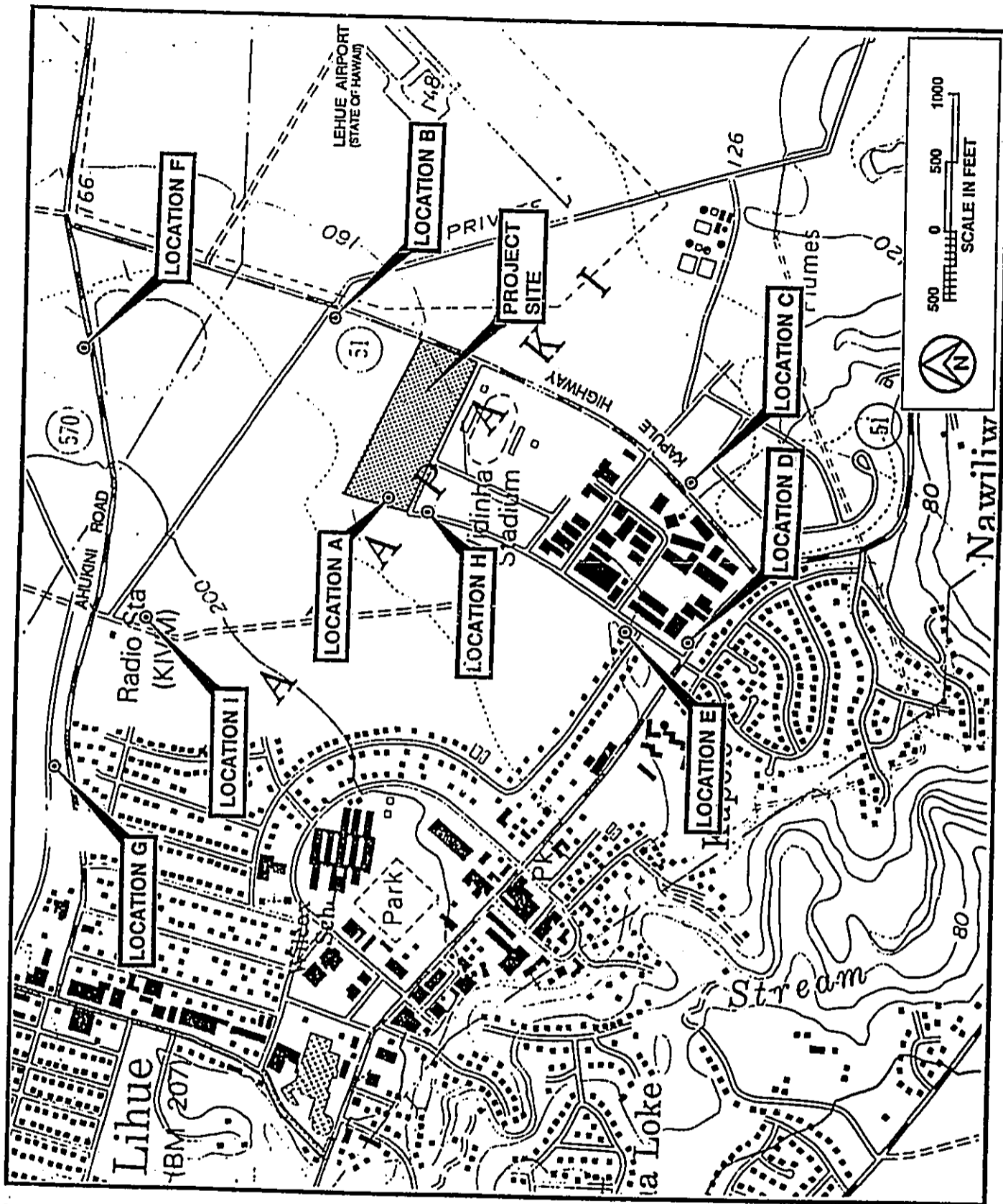
(f) Impact of amplitude, duration, frequency, and tonal content of aircraft noise events should be evaluated.

CHAPTER IV. GENERAL STUDY METHODOLOGY

Existing traffic and aircraft noise levels were measured at various locations in the project environs to provide a basis for developing the traffic noise contours along the roadways which will service the proposed development: Ahukini Road, Kapule Highway, Rice Street, and Hoolako Street; and for validating and updating the aircraft noise contours previously developed during the FAR Part 150 Noise Compatibility Program for Lihue Airport (Reference 4).

The locations of the measurement sites are shown in FIGURE 2. Noise measurements were performed during the latter parts of CY 1989 and 1990 (prior to Hurricane Iniki), during the months of May and August 1994, and during the month of May 1995. The traffic noise measurement results, and their comparisons with computer model predictions of existing traffic noise levels are summarized in TABLE 3. The results of the traffic noise measurements were compared with calculations of existing traffic noise levels to validate the computer model used.

Traffic noise calculations for the existing conditions as well as noise predictions for the future conditions with and without the project were performed using the Federal Highway Administration (FHWA) Noise Prediction Model (Reference 5). Traffic data entered into the noise prediction model were: hourly traffic volumes, average vehicle speeds, estimates of traffic mix, and soft ground propagation loss factor. The traffic study for the project (Reference 6) and Hawaii State Department of Transportation counts (Reference 7) were the primary sources of data inputs to the model. For existing and future traffic, it was assumed that the average noise levels, or $Leq(h)$, during the PM peak hour were 0.5 dB less than the 24-hour Ldn along each roadway segment. These assumptions were based on computations of both the hourly Leq and the 24-hour Ldn of traffic noise on Ahukini Road and Kapule Highway (see FIGURES 3 and 4).



LOCATIONS OF NOISE MEASUREMENT SITES

FIGURE 2

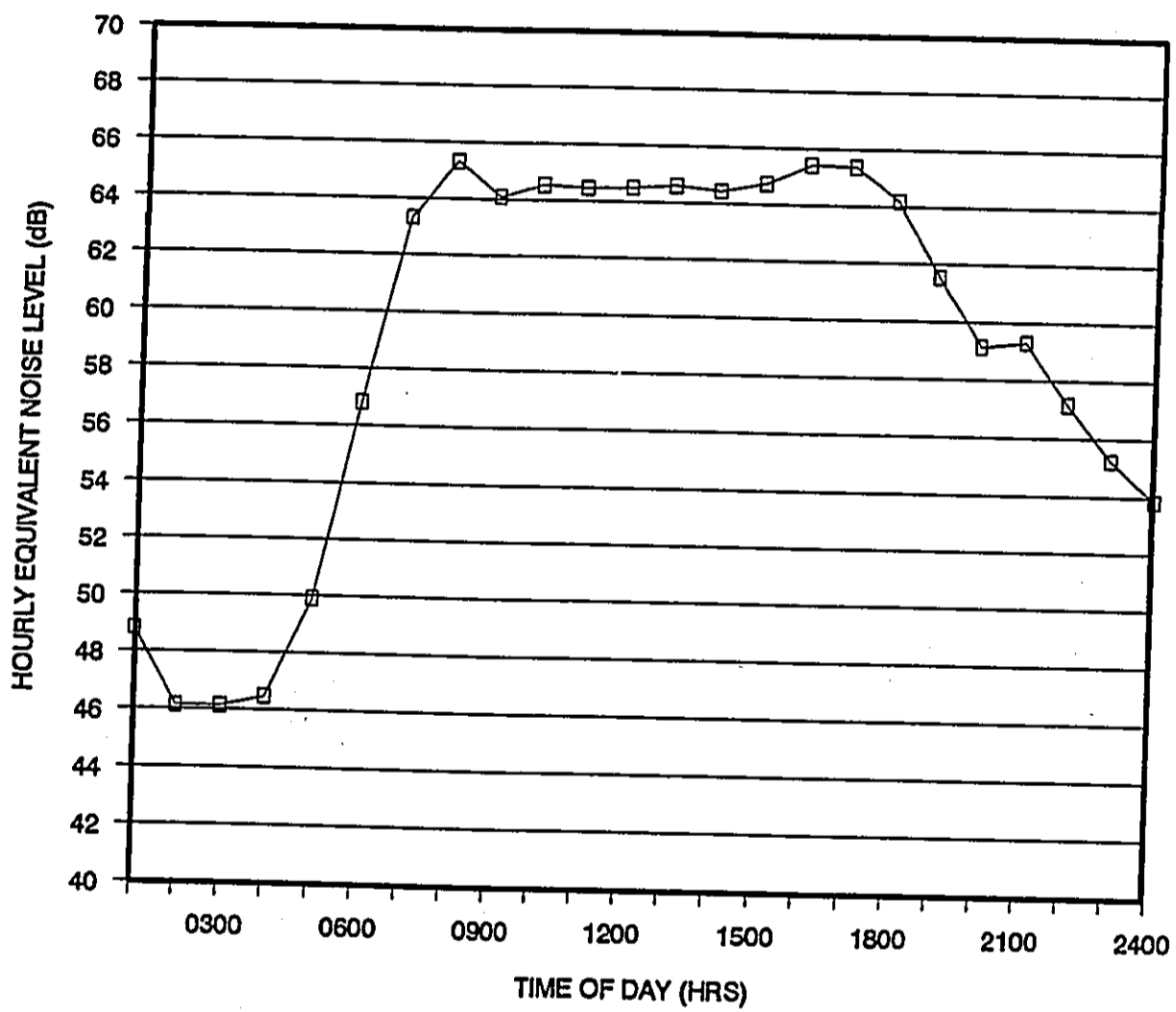
TABLE 3 (CONTINUED)

TRAFFIC NOISE MEASUREMENT RESULTS

LOCATION	Time of Day (HRS)	Ave. Speed (MPH)	--Hourly Traffic Volume--			Measured Leq (dB)	Predicted Leq (dB)
			AUTO	M.TRUCK	H.TRUCK		
D. 55 FT from the center-- line of Rice Street (8/10/94)	1600	35	1,019	5	7	62.4	62.2
	TO 1700						
E. 50 FT from the center-- line of Hoolako Street. (8/10/94)	1455	30	273	7	6	58.9	59.0
	TO 1555						
F. 50 FT from the center-- line of Ahukini Rd. (5/17/94)	1600	41	957	46	14	64.8	64.6
	TO 1700						
G. 50 FT from the center-- line of Ahukini Rd. at Palai SL (10/10/90)	1515	47	714	38	12	65.9	65.6
	TO 1615						

FIGURE 3

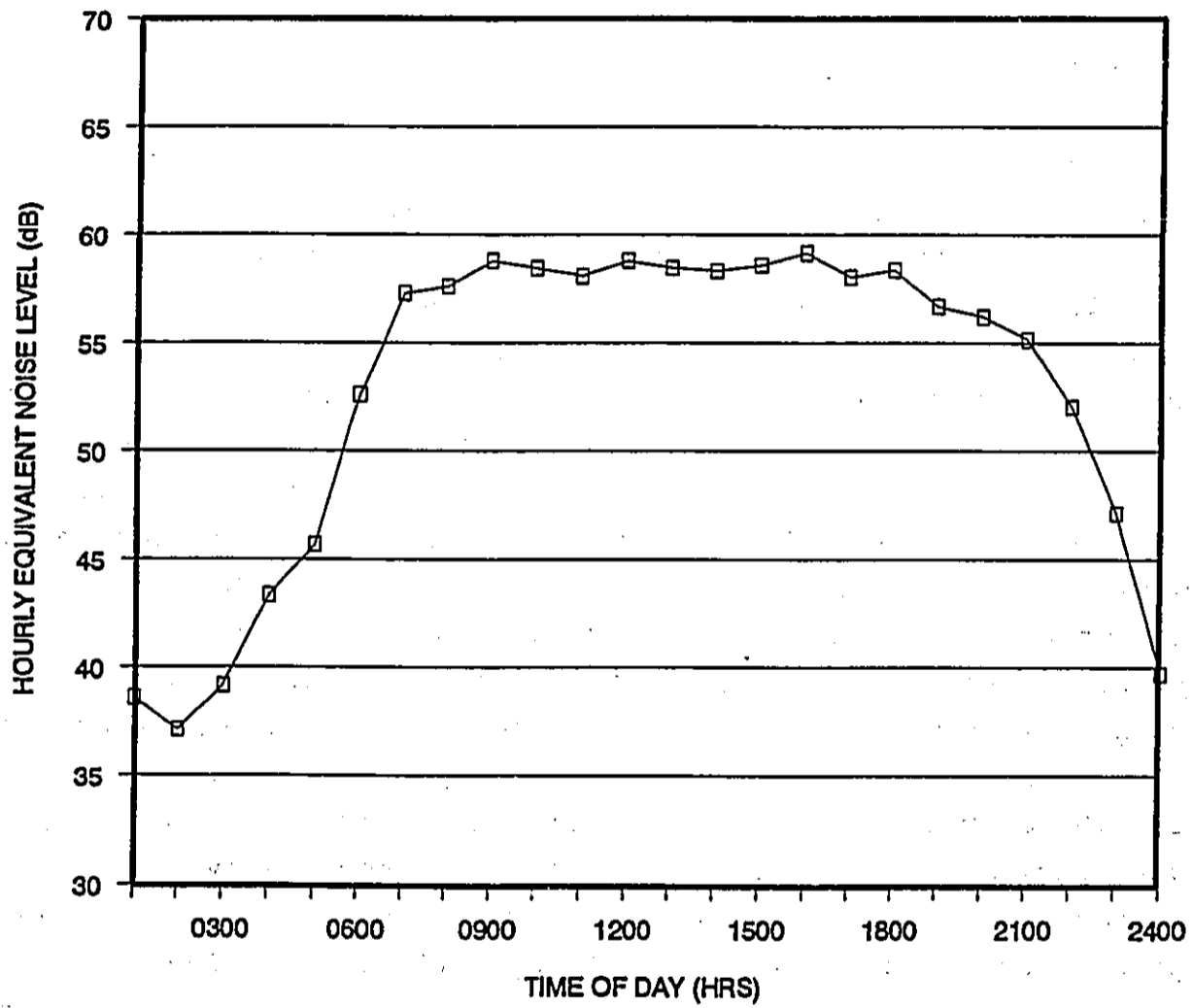
HOURLY VARIATIONS OF TRAFFIC NOISE AT 100 FT
SETBACK DISTANCE FROM THE CENTERLINE OF
KAPULE HIGHWAY AT AHUKINI ROAD
(NOVEMBER 3, 1993)



□ 100 FT from Roadway Centerline (64.7 Ldn)

FIGURE 4

HOURLY VARIATIONS OF TRAFFIC NOISE AT 100 FT
SETBACK DISTANCE FROM THE CENTERLINE OF
AHUKINI ROAD (EAST LEG) AT KAPULE HIGHWAY
(NOVEMBER 1, 1993)



□ 100 FT from Roadway Centerline (58.7 Ldn)

Traffic noise calculations for both the existing and future conditions in the project environs were developed for ground level receptors without the benefit of shielding effects. Traffic assignments with and without the project were obtained from the project's traffic study (Reference 6). The forecasted increases in traffic noise levels over existing levels were calculated for both scenarios, and noise impact risks evaluated. The relative contributions of non-project and project related traffic to the total noise levels were also calculated, and an evaluation was made of possible traffic noise impacts resulting from the project.

Aircraft noise measurements were obtained at Sites "F," "H," and "I" (see FIGURE 2). Aircraft noise measurements were made to confirm that single event noise levels associated with fixed and rotary wing aircraft operations at Lihue Airport were consistent with the noise data and contours for Lihue Airport which were developed during the FAR Part 150 Program for CY 1995, as well as those aircraft noise contours developed this study. The recently released Federal Aviation Administration Integrated Noise Model, Version 4.11 (FAA INM) was used to develop aircraft and helicopter noise contours over the project site. The on-site measurements were also performed to confirm helicopter and light aircraft flight tracks in the project environs, which were originally reported in Reference 4. In addition, 1994 airline passenger and cargo flight schedules were also used to obtain the best estimate of the aircraft operations at Lihue Airport during CY 1994. The CY 1994 operations by jet and helicopter aircraft at Lihue Airport were estimated to be 55,480 and 51,504, respectively. The percentage of quieter Stage 3 jet aircraft was estimated to be 16 percent of the total jet aircraft operations in CY 1994.

The CY 2010 passenger and aircraft operations forecasts for Lihue Airport (Reference 8) were used to develop the future aircraft noise contours in the project environs. By CY 2010, it was assumed that the existing seaward airport Runway 35-17 would be extended by 3,500 FT to a total length of 10,000 FT as has been

proposed by the State Department of Transportation, Airports Division. The CY 2010 operations by jet and helicopter aircraft at Lihue Airport were estimated to be 60,730 and 80,000, respectively. The percentage of quieter Stage 3 jet aircraft was assumed to be 80 percent of the total jet aircraft operations by CY 2010.

Airport noise contours with and without the existing Interim Helicopter Facility were developed with the FAA INM for CY 2010. Potential impacts of fixed and rotary wing aircraft noise on the planned recreational uses on the project site were evaluated and mitigation measures recommended as appropriate.

CHAPTER V. EXISTING NOISE ENVIRONMENT

Traffic Noise. The existing traffic noise levels in the project environs vary from levels of approximately 69 Ldn along Kapule Highway, to less than 52 Ldn at the interior locations of the project site which are removed from the high volume roadways. Existing traffic noise levels along the Right-of-Way of Hoolako Street, Ahukini Road, and Rice Street are approximately 61 Ldn, 67 Ldn, and 68 Ldn respectively.

Calculations of existing traffic noise levels during the PM peak traffic hour are presented in TABLE 4A. The hourly Leq (or Equivalent Sound Level) contribution from each roadway section in the project environs was calculated for comparison with forecasted traffic noise levels with and without the project. The existing setback distances from the roadways' centerlines to their associated 60, 65, and 70 Ldn contours were also calculated as shown in TABLE 4B. The contour line setback distances do not take into account noise shielding effects or the additive contributions of traffic noise from intersecting street sections. Based on the results of TABLE 4B, it was concluded that the existing 65 Ldn traffic noise contour does not extend beyond the parking lot of the proposed Vidinha Stadium Complex Expansion Site.

Existing traffic noise levels at the interior (western) portion of the project site are low (less than 52 Ldn) due to the large setback distance from Kapule Highway and other high volume roadways which surround the project site. At these interior locations on the project site, aircraft noise is the dominant noise source. A discussion of existing aircraft noise levels on the project site is provided in the following section. Between aircraft noise events, background ambient noise levels drop to a range of 45 to 50 dB. During calm wind periods, background ambient noise levels decrease to levels less than 45 dB. The minimum background ambient noise levels at the interior locations are controlled by distant traffic and wind noise.

TABLE 4A

COMPARISONS OF CY 1995 AND CY 2001 TRAFFIC NOISE LEVELS
ALONG ROADWAYS IN THE PROJECT ENVIRONS
(PM PEAK HOUR AND 100 FT FROM ROADWAY CENTERLINES)

LOCATION	SPEED (MPH)	VPH	***** HOURLY LEQ IN dB *****			
			AUTO	MT	HT	ALL VEH
<u>EXISTING (CY 1995) PM PEAK HOUR:</u>						
Kapule Highway (South of Project)	55	1,189	61.9	59.6	61.1	65.8
Kapule Highway (North of Project)	55	1,237	63.7	61.4	62.8	67.5
Ahukini Rd. West of Kapule Hwy.	47	964	58.5	56.8	54.5	61.7
Ahukini Rd. East of Kapule Hwy.	47	818	57.8	56.1	53.8	61.0
Hoolako Street	30	295	50.0	45.1	51.6	54.4
Rice St. West of Hoolako St.	30	1,215	54.8	46.8	53.2	57.5
Rice St. West of Kapule Hwy.	35	1,086	56.8	48.5	54.4	59.2
Rice St. East of Kapule Hwy.	35	1,055	56.6	51.4	57.2	60.5
<u>FUTURE (CY 2001) PM PEAK HOUR WITH PROJECT:</u>						
Kapule Highway (South of Project)	55	1,601	63.2	60.9	62.3	67.0
Kapule Highway (North of Project)	55	1,670	65.0	62.7	64.1	68.8
Ahukini Rd. West of Kapule Hwy.	47	1,555	60.6	58.9	56.6	63.8
Ahukini Rd. East of Kapule Hwy.	47	1,012	58.7	57.1	54.7	61.9
Hoolako Street	30	1,145	55.9	51.0	57.4	60.3
Rice St. West of Hoolako St.	30	2,245	57.4	49.4	55.9	60.1
Rice St. West of Kapule Hwy.	35	1,577	58.4	50.2	56.0	60.8
Rice St. East of Kapule Hwy.	35	1,709	58.7	53.5	59.3	62.6

Note:

The following assumed traffic mixes of autos, medium trucks, and heavy vehicles were used for existing and future conditions:

- (a) Kapule Highway: 93.0% Autos; 4.5% Medium Trucks; and 2.5% Heavy Trucks and Buses.
- (b) Ahukini Road: 94.0% Autos; 5.0% Medium Trucks; and 1.0% Heavy Trucks and Buses.
- (c) Rice Street (West End): 98.0% Autos; 1.0% Medium Trucks; and 1.0% Heavy Trucks and Buses.
- (d) Rice Street (East End): 96.0% Autos; 2.0% Medium Trucks; and 2.0% Heavy Trucks and Buses.
- (e) Hoolako Street: 96.0% Autos; 2.0% Medium Trucks; and 2.0% Heavy Trucks and Buses.

TABLE 4B

EXISTING AND CY 2001 DISTANCES TO 60, 65, AND 70 Ldn CONTOURS

STREET SECTION	60 Ldn SETBACK (FT)		65 Ldn SETBACK (FT)		70 Ldn SETBACK (FT)	
	EXISTING	CY 2001	EXISTING	CY 2001	EXISTING	CY 2001
Kapule Highway (South of Project)	261	318	121	148	56	69
Kapule Highway (North of Project)	342	418	159	194	74	90
Ahukini Rd. West of Kapule Hwy.	140	192	65	89	30	41
Ahukini Rd. East of Kapule Hwy.	125	144	58	67	27	31
Hoolako Street	46	113	21	52	10	24
Rice St. West of Hoolako St.	73	110	34	51	16	24
Rice St. West of Kapule Hwy.	95	122	44	57	20	26
Rice St. East of Kapule Hwy.	117	161	54	75	25	35

Notes:

- (1) All setback distances are from the roadways' centerlines.
- (2) See TABLE 4A for traffic volume, speed, and mix assumptions.
- (3) Ldn assumed to be equal to PM Peak Hour Leq plus 0.5 dB along all roadways.
- (4) Setback distances are for unobstructed line-of-sight conditions.
- (5) Soft ground conditions assumed along all roadways.

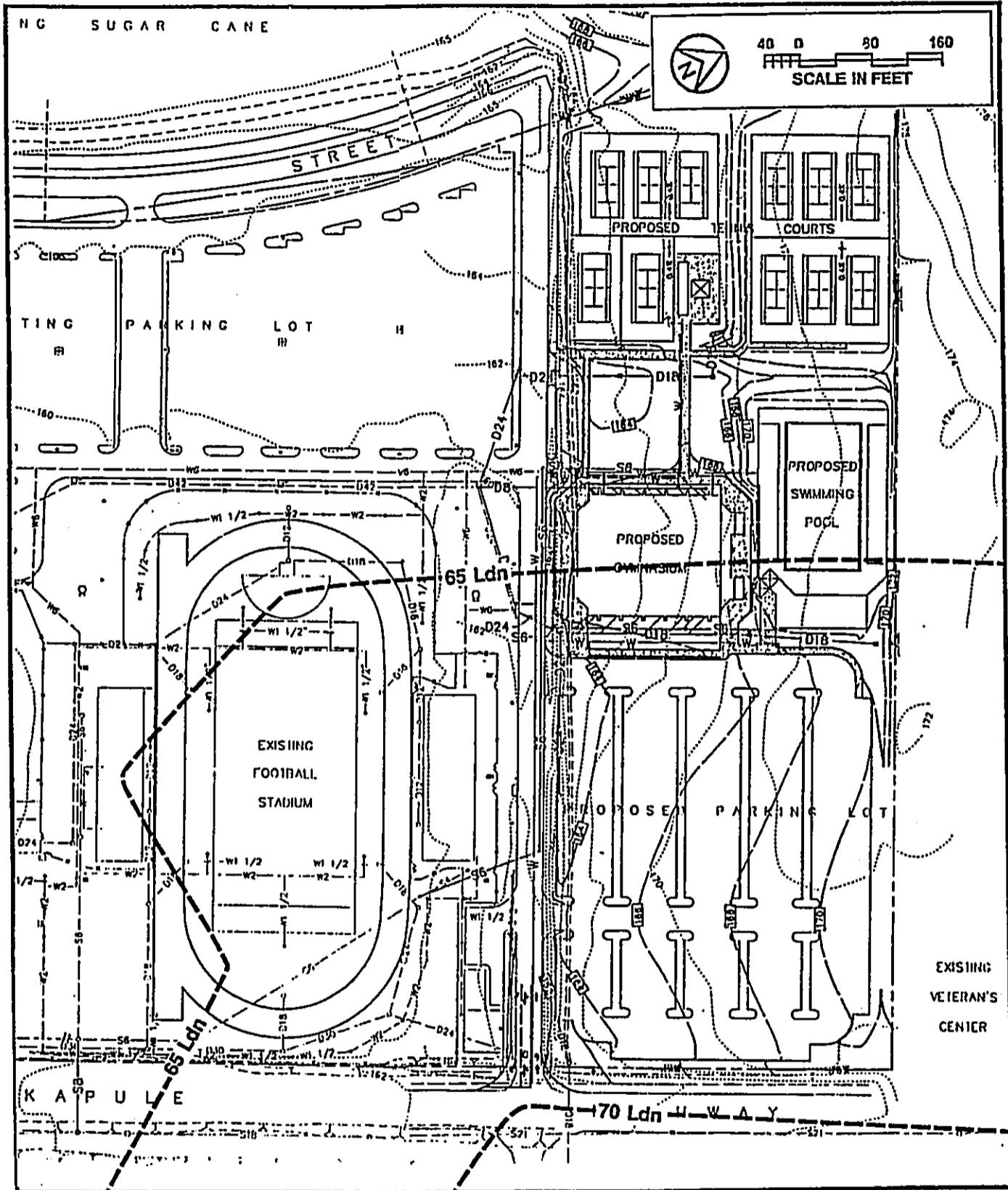
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Aircraft Noise. Aircraft noise sources in the project environs are associated with fixed and rotary wing aircraft operations at Lihue Airport. The noisier jet aircraft flight tracks remain east of the project site and are aligned with Lihue Airport's two runways (Runway 03-21 and Runway 35-17).

FIGURE 5 depicts the locations of the existing 65 and 60 Ldn aircraft noise contours for the CY 1994 period. These noise contours were developed using current airline flight schedules, and are approximately 3 to 4 Ldn larger than the CY 1995 noise contours (FIGURE 6) developed during the Lihue Airport FAR Part 150 effort (Reference 4). Although the CY 1994 noise contours of FIGURE 5 are slightly larger than those contained within the FAR Part 150 Study Report, existing aircraft noise levels do not exceed 70 Ldn at the planned recreational facilities on the project site, and as such, are considered to be in the "Acceptable" category for the planned land uses on the project site.

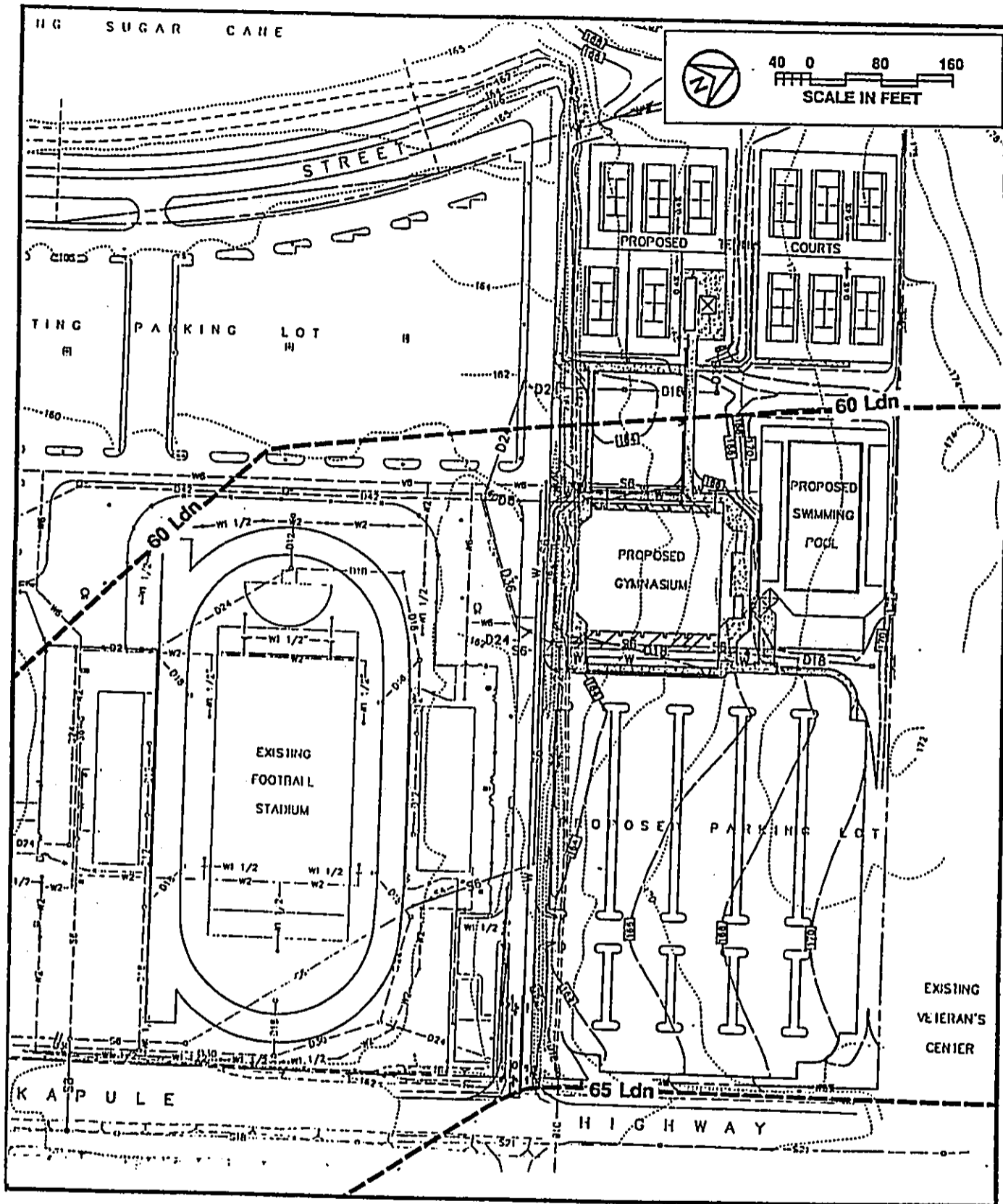
TABLES 5A thru 5C summarize the results of the aircraft noise measurements obtained at locations on or adjacent to the project site. These aircraft noise measurements were used to validate the FAA Integrated Noise Model, Version 4.11, which was used in this study to develop the aircraft noise contours for Lihue Airport. The comparisons between the measured and predicted aircraft noise levels are shown in the "Sound Exposure Level" column of the tables. The results of the comparisons indicated that the use of the FAA Model for developing the aircraft noise contours should provide reasonably accurate results.

It was concluded that the existing 70 Ldn aircraft noise contour does not enclose the planned recreational facilities of the project. Based on these updated aircraft noise contours in the project environs, it was concluded that special aircraft noise mitigation measures will not be required.



LOCATIONS OF CY 1994 AIRCRAFT NOISE CONTOURS OVER PROJECT SITE

FIGURE 5



LOCATIONS OF CY 1995 AIRCRAFT NOISE CONTOURS FROM FAR PART 150 REPORT

FIGURE 6

TABLE 5A

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE 'F'

<u>AIRCRAFT TYPE</u>	<u>MAXIMUM SOUND LEVELS</u> <u>L_{max} (in dB)</u>	<u>SOUND EXPOSURE LEVELS</u> <u>L_{se} (in dB)</u>
B-737(200)	74.3; 78.4; 77.7; 80.7; 77.8; 73.6; 76.5; 81.1 (AVG.=77.5)	83.5; 83.8; 87.6; 86.5; 85.0; 83.7; 82.0; 89.1 (AVG.=85.8) (PRED.=86.3)
B-737(300)	69.9; 69.1 (AVG.=69.5)	76.0; 76.5 (AVG.=76.3) (PRED.=72.3)
DC-9(50)	81.5; 79.4; 81.1; 81.9; 82.4; 83.8; 80.1 (AVG.=81.5)	89.2; 87.5; 90.0; 89.8; 87.9; 90.1; 88.6 (AVG.=89.1) (PRED.=89.7)
HELICOPTER	67.3; 73.1; 78.7; 67.8; 68.4; 68.0; 67.9; 75.8; 70.3; 69.1; 72.0; 67.7; 68.0; 68.4; 68.5; 69.5; 65.9; 72.3; 66.4; 66.7; 67.5; 65.4; 69.8; 68.2; 68.0; 66.1; 68.4; 67.6; 68.4; 70.1; 66.6; 71.3; 69.0; 66.6; 70.9; 69.7; 66.0; 64.4; 67.7; 72.8; 67.9; 72.9; 71.4; 67.7; 65.1; 69.0 (AVG.=68.9)	74.7; 77.4; 73.9; 71.4; 74.3; 75.6; 74.1; 83.7; 72.5; 74.2; 76.8; 72.6; 74.2; 73.1; 72.7; 71.4; 73.0; 77.6; 71.9; 72.9; 71.7; 74.5; 76.7; 71.8; 76.9; 74.7; 71.1; 69.3; 72.7; 72.7; 71.0; 75.3; 73.4; 75.0; 76.1; 75.8; 74.8; 72.6; 71.8; 76.7; 70.5; 74.9; 76.2; 74.8; 71.8; 75.6 (AVG.=75.0) (PRED.=76.1)

TABLE 5B

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE "H"

<u>AIRCRAFT TYPE</u>	<u>MAXIMUM SOUND LEVELS</u> <u>L_{max} (in dB)</u>	<u>SOUND EXPOSURE LEVELS</u> <u>L_{se} (in dB)</u>
B-737(200)	83.2; 79.8; 82.2; 89.1; 85.9; 87.3; 89.4; 87.5 (AVG.=85.6)	91.5; 88.9; 89.2; 93.2; 95.2; 93.5; 95.1; 96.1 (AVG.=93.5) (PRED.=92.2)
B-737(300)	70.8	79.2 (PRED.=78.5)
DC-9(50)	93.0; 84.9; 84.4; 89.3; 90.3; 86.0 (AVG.=88.0)	97.5; 89.8; 94.3; 97.2; 97.5; 96.2 (AVG.=96.1) (PRED.=95.0)

TABLE 5C

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE 'I'

<u>AIRCRAFT TYPE</u>	<u>MAXIMUM SOUND LEVELS</u> L _{max} (in dB)	<u>SOUND EXPOSURE LEVELS</u> L _{se} (in dB)
B-737(200)	77.1; 78.7; 74.7; 72.0; 75.5; 74.7; 77.9; 78.2 (AVG.=76.1)	84.3; 84.5; 81.9; 81.1; 84.8; 82.4; 84.2; 86.7 (AVG.=84.1) (PRED.=86.4)
B-737(300)	66.2	74.5 (PRED.=72.7)
DC-9(50)	83.5; 78.0; 78.0; 74.3; 80.9; 77.3 (AVG.=78.7)	90.3; 85.1; 86.5; 85.2; 86.3; 85.7 (AVG.=87.0) (PRED.=89.4)

11-11-77 10:00 AM 11-11-77 10:00 AM 11-11-77 10:00 AM 11-11-77 10:00 AM

CHAPTER VI. FUTURE NOISE ENVIRONMENT

Traffic Noise. Predictions of future traffic noise levels were made using the traffic volume assignments of Reference 6 for CY 2001 with and without the proposed project. The future assignments of project plus non-project traffic on the roadway sections which would service the project are shown in TABLE 4A for the PM peak hour of traffic. As indicated in TABLE 4A, by CY 2001 and following complete project build-out, traffic noise levels on the roadways servicing the project are predicted to increase by 0.9 to 5.9 Ldn. This range of increase in traffic noise levels is considered to be significant, and reflects the large growth expected in non-project traffic in the project environs by CY 2001.

TABLE 4B summarizes the predicted increases in the future setback distances to the 60, 65, and 70 Ldn traffic noise contour lines along the roadways in the project environs and attributable to both project plus non-project traffic in CY 2001. The setback distances in TABLE 4B do not include the beneficial effects of noise shielding from terrain features and highway cuts, or the detrimental effects of additive contributions of noise from intersecting streets. As indicated in TABLE 4B, the setback distances to the 65 Ldn contour are predicted to range from 67 to 89 FT from the centerline of Ahukini Road following project build-out in CY 2001. Along Kapule Highway, setback distances to the 65 Ldn contour are expected to range from 148 to 194 FT. Setback distances to the 65 Ldn contour are expected to range from 51 to 75 FT from the centerlines of Hoolako Street and Rice Street.

TABLE 6 presents the predicted increases in traffic noise levels associated with non-project and project traffic by CY 2001, and as measured by the Ldn descriptor system. As indicated in TABLE 6, non-project traffic is expected to cause the larger increases in traffic noise along the roadways servicing the project. The largest increases in traffic noise levels attributable to project traffic are expected to occur along Hoolako Street, but

TABLE 6
CALCULATIONS OF PROJECT AND NON-PROJECT
TRAFFIC NOISE CONTRIBUTIONS (CY 2001)

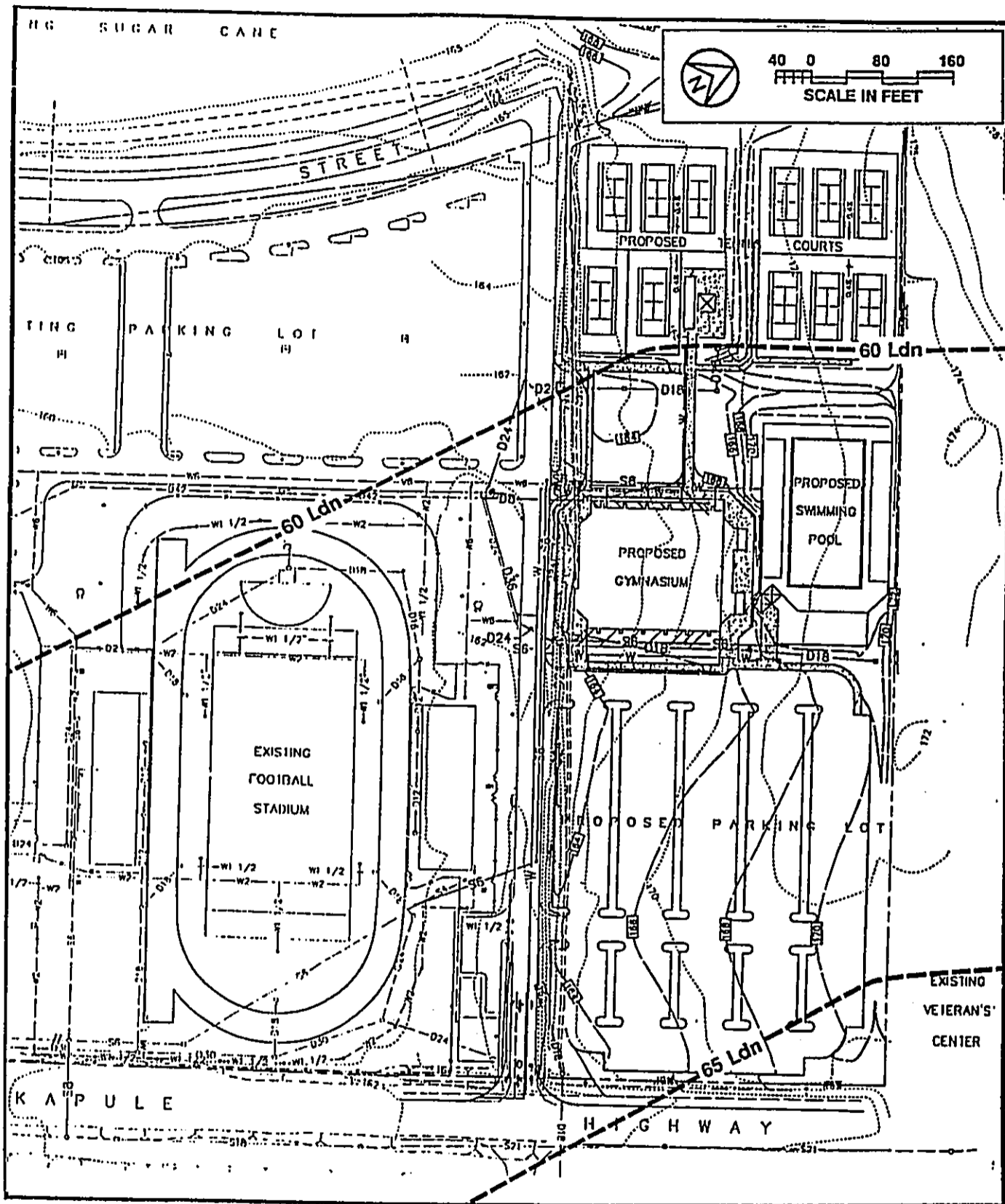
<u>STREET SECTION</u>	<u>NOISE LEVEL INCREASE (Ldn) DUE TO NON-PROJECT TRAFFIC</u>	<u>DUE TO PROJECT TRAFFIC</u>
Kapule Highway (South of Project)	1.3	0.0
Kapule Highway (North of Project)	1.2	0.1
Ahukini Rd. West of Kapule Hwy.	2.1	0.0
Ahukini Rd. East of Kapule Hwy.	0.9	0.0
Hoolako Street	5.4	0.5
Rice St. West of Hoolako St.	2.5	0.1
Rice St. West of Kapule Hwy.	1.5	0.1
Rice St. East of Kapule Hwy.	2.0	0.1

are predicted to be insignificant at 0.5 Ldn.

Aircraft Noise. The aircraft noise contours in the project environs for the CY 2010 period were developed using the most recently available State DOT forecasts for Lihue Airport (Reference 8). The proposed extension of Runway 35-17 from 6,500 to 10,000 FT length was included in the modeling of the CY 2010 noise contours for Lihue Airport. It should be noted that the State DOT operations forecasts assumed that three interisland air carriers would be flying to Lihue Airport by CY 2010. It was assumed that only 80 percent of the interisland B-737 and DC-9 fleet would be quieted from Stage 2 to Stage 3 noise levels by CY 2010. The quieter Stage 3 aircraft, which are approximately 10 to 15 dB quieter than the older Stage 2 aircraft, and could include brand new aircraft such as the B-737(300) and B-737(400), or older aircraft which are outfitted with hush kits or which are reengined with high bypass ratio engines.

The relationship of the CY 2010 aircraft noise contours over the project site are shown in FIGURE 7. The CY 2010 contours developed during the current study indicate reduced aircraft noise levels in the project area primarily due to the expected conversion of noisier Stage 2 interisland jet aircraft to the quieter Stage 3 aircraft.

The available CY 2010 forecasts for aircraft noise over the project site indicate that the 65 Ldn contour will shrink slightly and move off most of the project site toward Kapule Highway (see FIGURE 7). The planned recreational uses on the project site are not considered to be noise sensitive, and have been located outside the 70 Ldn aircraft noise contour for CY 2010. As such, special aircraft noise mitigation measures should not be required.



**LOCATIONS OF CY 2010 AIRCRAFT NOISE CONTOURS
OVER PROJECT SITE**

**FIGURE
7**

CHAPTER VII. DISCUSSION OF PROJECT RELATED NOISE IMPACTS
AND POSSIBLE NOISE MITIGATION MEASURES

Traffic Noise Impacts. The increases in traffic noise levels attributable to the project from the present to CY 2001 are predicted to range from zero to 0.5 Ldn along the roadways in the immediate vicinity of the project. Traffic noise level increases in this range are considered to be insignificant and will be difficult to detect, particularly if the increase occurs over a long period of time. Traffic noise level increases along Rice Street, Hoolako Street, Ahukini Road, and Kapule Highway are expected to be insignificant, with essentially no traffic noise impacts expected from the proposed project.

Aircraft Noise Impacts. The siting of future recreational facilities outside the existing and forecasted 70 Ldn airport noise contour conforms to the land use compatibility recommendations of the State DOT, Airports Division as well as to Lihue Airport's FAR Part 150 Noise Compatibility Plan. Because the existing 65 Ldn aircraft noise contour does cross through the proposed gymnasium site, the use of the gymnasium for noise sensitive uses other than recreational activities or sport events is not recommended. If the gymnasium is anticipated to be regularly used for noise sensitive activities such as public assemblies, theater presentation, or music concerts, closure and air conditioning of the facility is recommended.

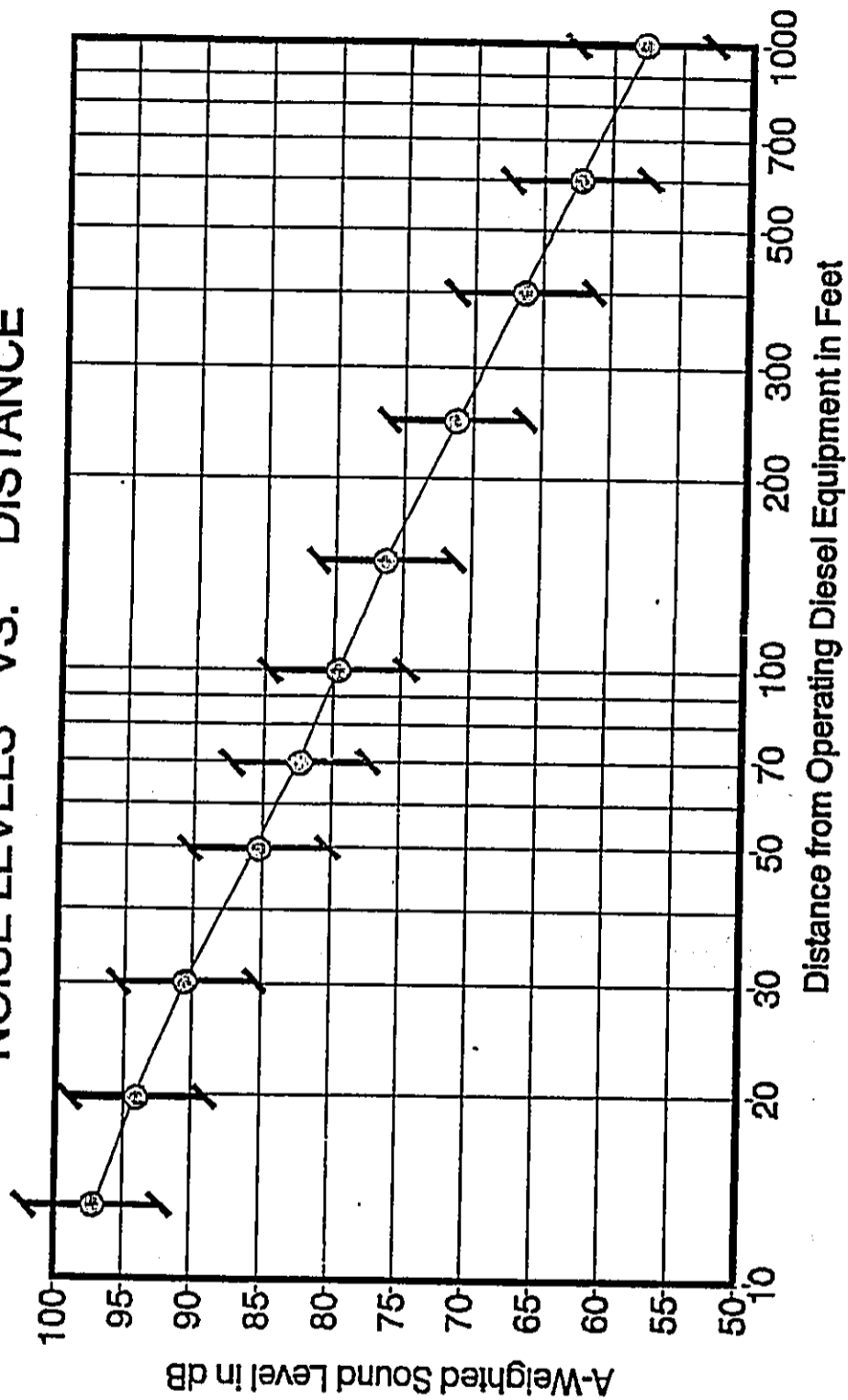
The siting of the tennis courts, swimming pool, and parking lot within the 60 Ldn contour is acceptable, since these uses are not considered to be noise sensitive. The siting of these types of uses within the high noise areas around an airport is usually encouraged, since it tends to preclude future development of noise sensitive uses on the same lands.

Construction Noise. Audible construction noise will probably

be unavoidable during the entire project construction period. During periods of construction, it is anticipated that the actual work will be moving from one location on the project site to another during that period. Actual length of exposure to construction noise at any receptor location will probably be less than the total construction period for the entire project. Typical levels of noise from construction activity (excluding pile driving activity) are shown in FIGURE 8. Existing noise sensitive residential properties are relatively far from the project site (at least 1,200 FT), and should not experience adverse noise impacts from construction activities on the project site. The neighboring Veteran's Center is expected to experience the highest noise levels during construction activities on the project site, but the occupied office spaces of the center are located on the far side (north) and away from the anticipated construction work. Adverse impacts from construction noise are not expected to be in the "public health and welfare" category due to the temporary nature of the work and due to the administrative controls available for its regulation. Instead, these impacts will probably be limited to the temporary degradation of the quality of the acoustic environment in the immediate vicinity of the project site.

Mitigation of construction noise to inaudible levels will not be practical in all cases due to the intensity of construction noise sources (80 to 90+ dB at 50 FT distance), and due to the exterior nature of the work (grading and earth moving, trenching, concrete pouring, hammering, etc.). The use of properly muffled construction equipment should be required on the job site. The incorporation of State Department of Health construction noise limits and curfew times, which are applicable on the island of Oahu (Reference 9), is another noise mitigation measure which can be applied to this project. TABLE 7 depicts the allowed hours of construction for normal construction noise (levels which do not exceed 95 dB at the project's property line) and for construction noise which exceeds 95 dB at the project's property line. Noisy

ANTICIPATED RANGE OF CONSTRUCTION
NOISE LEVELS VS. DISTANCE

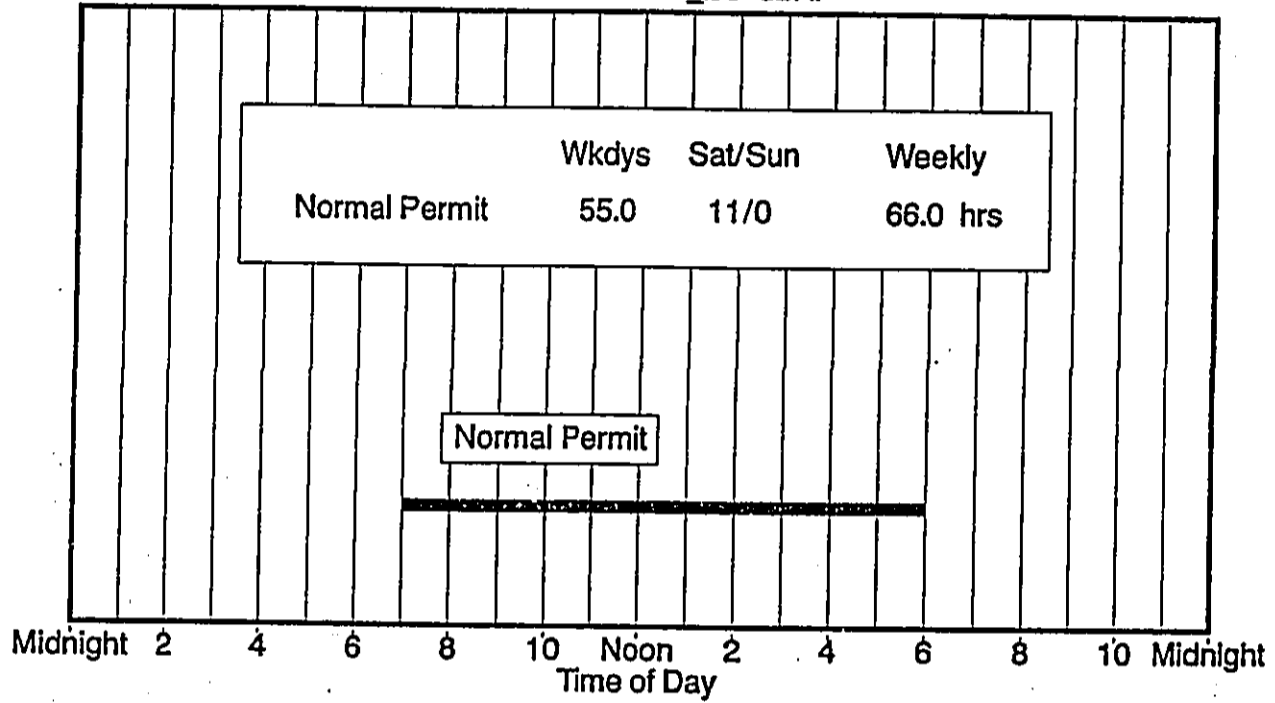


CONSTRUCTION NOISE LEVELS VS. DISTANCE

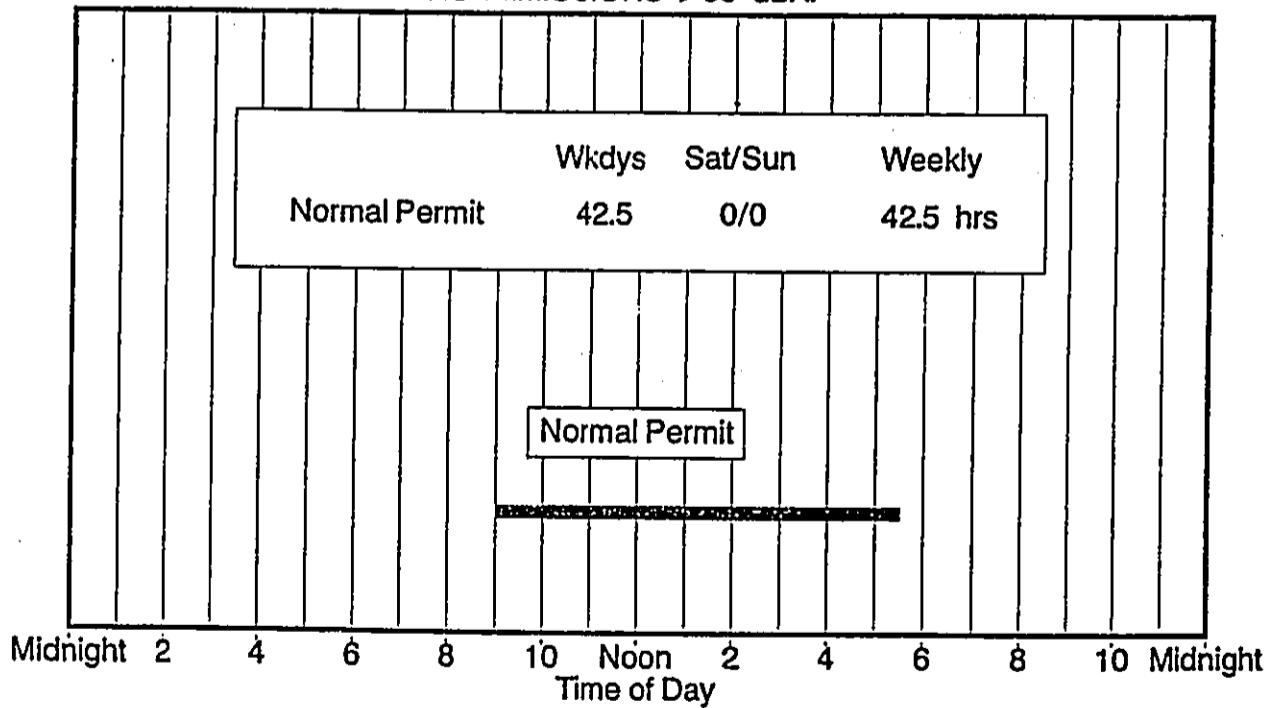
FIGURE
8

TABLE 7
AVAILABLE WORK HOURS UNDER DOH
PERMIT PROCEDURES FOR CONSTRUCTION NOISE

a. DOH PERMIT FOR NOISE EMISSIONS ≤ 95 dBA.



b. DOH PERMIT FOR NOISE EMISSIONS > 95 dBA.



construction activities are not allowed on holidays under the DOH permit procedures.

APPENDIX A. REFERENCES

- (1) "Guidelines for Considering Noise in Land Use Planning and Control;" Federal Interagency Committee on Urban Noise; June 1980.
- (2) "Environmental Criteria and Standards, Noise Abatement and Control, 24 CFR, Part 51, Subpart B;" U.S. Department of Housing and Urban Development; July 12, 1979.
- (3) "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety;" Environmental Protection Agency (EPA 550/9-74-004); March 1974.
- (4) "Volume II - Noise Compatibility Program Report; Lihue Airport, Hawaii;" Hawaii State Department of Transportation, Airports Division; December 1989.
- (5) Barry, T. and J. Reagan, "FHWA Highway Traffic Noise Prediction Model;" FHWA-RD-77-108, Federal Highway Administration; Washington, D.C.; December 1978.
- (6) Traffic Assignments and Projections for the Vidinha Stadium Complex Expansion Project; The Traffic Management Consultant; July 28, 1995.
- (7) 24-Hour Traffic Counts; Station 22-C, Kapule Highway at Ahukini Road; Hawaii State Department of Transportation; November 1 and 3, 1993.
- (8) "Update of the Statewide Airport System Plan Forecasts;" Aries Consultants Ltd.; April 20, 1990.
- (9) "Title 11, Administrative Rules, Chapter 43, Community Noise Control for Oahu;" Hawaii State Department of Health; November 6, 1981.

APPENDIX B

EXCERPTS FROM EPA'S ACOUSTIC TERMINOLOGY GUIDE

Descriptor Symbol Usage

The recommended symbols for the commonly used acoustic descriptors based on A-weighting are contained in Table I. As most acoustic criteria and standards used by EPA are derived from the A-weighted sound level, almost all descriptor symbol usage guidance is contained in Table I.

Since acoustic nomenclature includes weighting networks other than "A" and measurements other than pressure, an expansion of Table I was developed (Table II). The group adopted the ANSI descriptor-symbol scheme which is structured into three stages. The first stage indicates that the descriptor is a level (i.e., based upon the logarithm of a ratio), the second stage indicates the type of quantity (power, pressure, or sound exposure), and the third stage indicates the weighting network (A, B, C, D, E.....). If no weighting network is specified, "A" weighting is understood. Exceptions are the A-weighted sound level and the A-weighted peak sound level which require that the "A" be specified. For convenience in those situations in which an A-weighted descriptor is being compared to that of another weighting, the alternative column in Table II permits the inclusion of the "A". For example, a report on blast noise might wish to contrast the LCdn with the LAdn.

Although not included in the tables, it is also recommended that "Lpn" and "LepH" be used as symbols for perceived noise levels and effective perceived noise levels, respectively.

It is recommended that in their initial use within a report, such terms be written in full, rather than abbreviated. An example of preferred usage is as follows:

The A-weighted sound level (LA) was measured before and after the installation of acoustical treatment. The measured LA values were 85 and 75 dB respectively.

Descriptor Nomenclature

With regard to energy averaging over time, the term "average" should be discouraged in favor of the term "equivalent". Hence, Leq, is designated the "equivalent sound level". For Ld, Ln, and Ldn, "equivalent" need not be stated since the concept of day, night, or day-night averaging is by definition understood. Therefore, the designations are "day sound level", "night sound level", and "day-night sound level", respectively.

The peak sound level is the logarithmic ratio of peak sound pressure to a reference pressure and not the maximum root mean square pressure. While the latter is the maximum sound pressure level, it is often incorrectly labelled peak. In that sound level meters have "peak" settings, this distinction is most important.

"Background ambient" should be used in lieu of "background", "ambient", "residual", or "indigenous" to describe the level characteristics of the general background noise due to the contribution of many unidentifiable noise sources near and far.

With regard to units, it is recommended that the unit decibel (abbreviated dB) be used without modification. Hence, DBA, PNdB, and EPNdB are not to be used. Examples of this preferred usage are: the Perceived Noise Level (Lpn was found to be 75 dB. Lpn = 75 dB). This decision was based upon the recommendation of the National Bureau of Standards, and the policies of ANSI and the Acoustical Society of America, all of which disallow any modification of bel except for prefixes indicating its multiples or submultiples (e.g., deci).

Noise Impact

In discussing noise impact, it is recommended that "Level Weighted Population" (LWP) replace "Equivalent Noise Impact" (ENI). The term "Relative Change of Impact" (RCI) shall be used for comparing the relative differences in LWP between two alternatives.

Further, when appropriate, "Noise Impact Index" (NII) and "Population Weighed Loss of Hearing" (PHL) shall be used consistent with CHABA Working Group 69 Report Guidelines for Preparing Environmental Impact Statements (1977).

APPENDIX B (CONTINUED)

TABLE I

A-WEIGHTED RECOMMENDED DESCRIPTOR LIST

<u>TERM</u>	<u>SYMBOL</u>
1. A-Weighted Sound Level	L_A
2. A-Weighted Sound Power Level	L_{WA}
3. Maximum A-Weighted Sound Level	L_{max}
4. Peak A-Weighted Sound Level	L_{Apk}
5. Level Exceeded x% of the Time	L_x
6. Equivalent Sound Level	L_{eq}
7. Equivalent Sound Level over Time (T) ⁽¹⁾	$L_{eq}(T)$
8. Day Sound Level	L_d
9. Night Sound Level	L_n
10. Day-Night Sound Level	L_{dn}
11. Yearly Day-Night Sound Level	$L_{dn}(Y)$
12. Sound Exposure Level	L_{SE}

(1) Unless otherwise specified, time is in hours (e.g. the hourly equivalent level is $L_{eq}(1)$). Time may be specified in non-quantitative terms (e.g., could be specified a $L_{eq}(WASH)$ to mean the washing cycle noise for a washing machine).

SOURCE: EPA ACOUSTIC TERMINOLOGY GUIDE, BNA 8-14-78, NOISE REGULATION REPORTER.

APPENDIX B (CONTINUED)

**TABLE II
RECOMMENDED DESCRIPTOR LIST**

<u>TERM</u>	<u>A-WEIGHTING</u>	<u>ALTERNATIVE⁽¹⁾ A-WEIGHTING</u>	<u>OTHER⁽²⁾ WEIGHTING</u>	<u>UNWEIGHTED</u>
1. Sound (Pressure) Level ⁽³⁾	L_A	L_{pA}	L_B, L_{pB}	L_p
2. Sound Power Level	L_{WA}		L_{WB}	L_W
3. Max. Sound Level	L_{max}	L_{Amax}	L_{Bmax}	L_{pmax}
4. Peak Sound (Pressure) Level	L_{Apk}		L_{Bpk}	L_{pk}
5. Level Exceeded x% of the time	L_x	L_{Ax}	L_{Bx}	L_{px}
6. Equivalent Sound Level	L_{eq}	L_{Aeq}	L_{Beq}	L_{peq}
7. Equivalent Sound Level Over Time(T) ⁽⁴⁾	$L_{eq(T)}$	$L_{Aeq(T)}$	$L_{Beq(T)}$	$L_{peq(T)}$
8. Day Sound Level	L_d	L_{Ad}	L_{Bd}	L_{pd}
9. Night Sound Level	L_n	L_{An}	L_{Bn}	L_{pn}
10. Day-Night Sound Level	L_{dn}	L_{Adn}	L_{Bdn}	L_{pdn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$	$L_{Adn(Y)}$	$L_{Bdn(Y)}$	$L_{pdn(Y)}$
12. Sound Exposure Level	L_S	L_{SA}	L_{SB}	L_{Sp}
13. Energy Average value over (non-time domain) set of observations	$L_{eq(e)}$	$L_{Aeq(e)}$	$L_{Beq(e)}$	$L_{peq(e)}$
14. Level exceeded x% of the total set of (non-time domain) observations	$L_{x(e)}$	$L_{Ax(e)}$	$L_{Bx(e)}$	$L_{px(e)}$
15. Average L_x value	L_x	L_{Ax}	L_{Bx}	L_{px}

(1) "Alternative" symbols may be used to assure clarity or consistency.

(2) Only B-weighting shown. Applies also to C,D,E,.....weighting.

(3) The term "pressure" is used only for the unweighted level.

(4) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified as $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine.

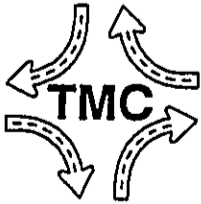
APPENDIX B

**DRAFT TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED**

VIDINHA STADIUM COMPLEX EXPANSION

PREPARED FOR
AKINAKA & ASSOCIATES, LTD.

SEPTEMBER 8, 1995



PREPARED BY

THE TRAFFIC MANAGEMENT CONSULTANT

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**DRAFT TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED
VIDINHA STADIUM COMPLEX EXPANSION**

I. Introduction

A. Purpose of Study

The purpose of this study is to identify and analyze the potential traffic impacts resulting from the expansion of the Vidinha Stadium Complex in Lihue, Kauai, Hawaii. This study also recommends improvements that would mitigate the traffic impacts identified in this study. This report documents the study's methodology, assumptions, findings, and recommendations.

B. Scope of Study

The scope of this study includes the following:

1. Existing traffic and roadway conditions in the vicinity of the project site are evaluated. Three peak periods are analyzed in this study: the commuter PM peak hour; the early evening peak hour; and the late evening peak hour.
2. Trip generation characteristics of the proposed expansion are developed, using generally accepted techniques developed by the Institute of Transportation Engineers (ITE). ITE rates are used to estimate trip generation during the PM peak hour of weekday traffic. Event-related trip generation is developed from a trip generation study conducted for Vidinha Stadium.
3. Future traffic conditions, resulting from the regional growth in traffic and the other projects being planned within the vicinity, are developed to analyze traffic operations without the proposed expansion.
4. The site-generated traffic is added to the projected traffic conditions to assess the resulting traffic impacts. Three periods of analysis are evaluated: the commuter PM peak hour of weekday traffic; the early evening peak hour prior to a special event held at Vidinha Stadium Complex; and the late evening peak hour at the conclusion of the special event.

5. Traffic improvements are recommended that would mitigate the traffic impacts identified in this study.

C. Project Description

The Vidinha Stadium Complex is located on the west side of Kapule Highway in Lihue. The project site is located immediately to the north of the existing stadium. Figure 1 depicts the vicinity of the proposed project.

The Vidinha Stadium Complex Expansion is comprised of three phases corresponding to separate components of the development plan: Phase I includes the swimming pool facilities; Phase II is made up of 11 tennis courts with portable bleachers and lighting; and Phase III includes a gymnasium, which can host basketball and volleyball games, as well as non-sporting events such as concerts, exhibits, and large meetings. The gymnasium would provide 4,000 seats, which could be expanded by an additional 1,000 seats for a total seating capacity of 5,000 persons. Phase III also includes an additional 393 parking spaces, bringing the total parking capacity to 1,141 stalls.

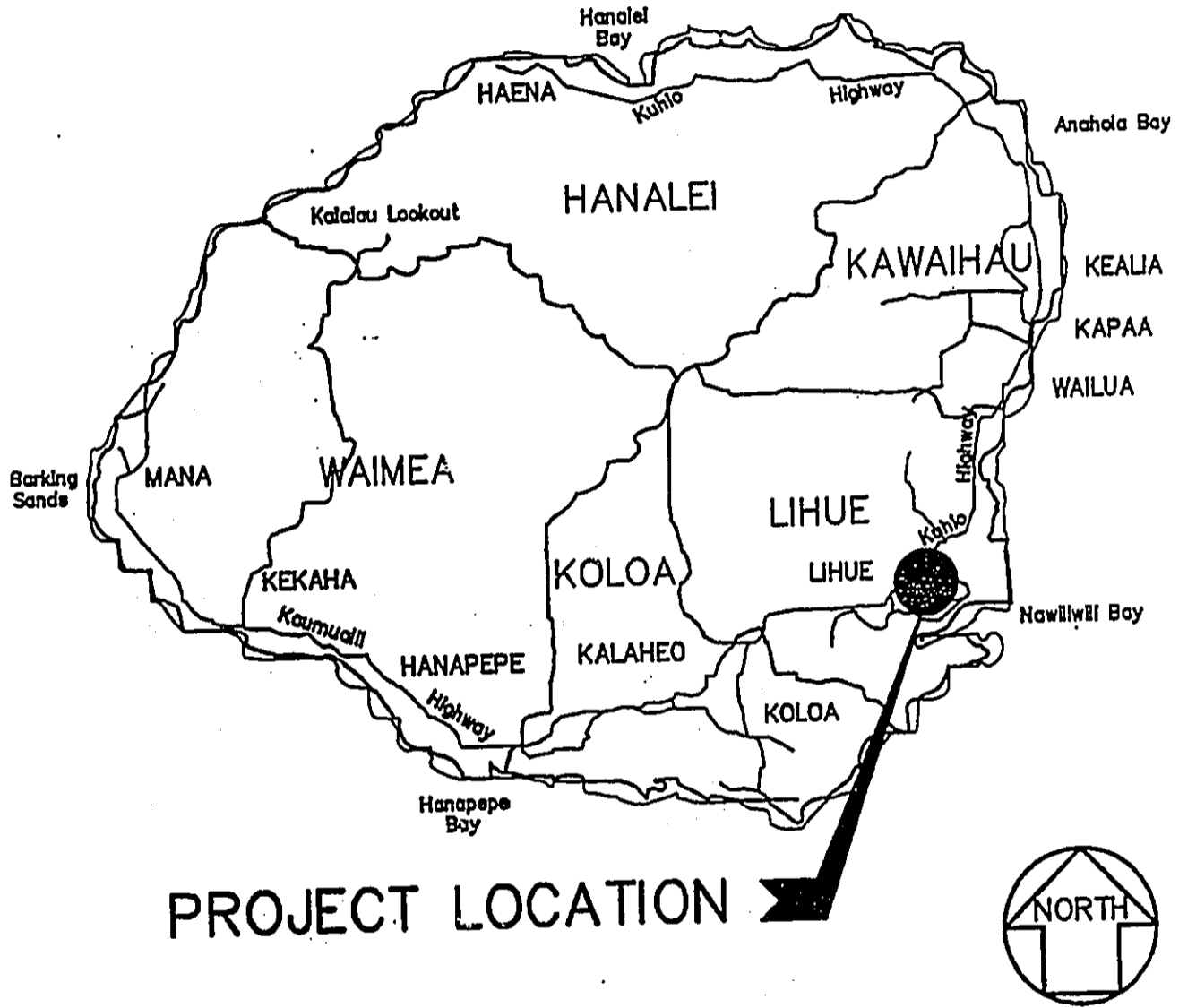
Access would continue to be provided by Hoolako Street and an existing roadway access on Kapule Highway, referred to herein as the Vidinha Stadium Access Road. Hoolako Street is proposed to be extended to Ahukini Road. However because the time frame of the road improvement is unclear at the writing of this report, the traffic impact analysis is based upon the existing access. Figure 2 illustrates the project site plan.

II. Study Area Conditions

A. Limits of the Study Area

The study area for the traffic impact analysis includes the site accesses and major intersections in the vicinity, which are expected to be the most significantly affected by traffic generated by the proposed Vidinha Stadium Complex Expansion. These include:

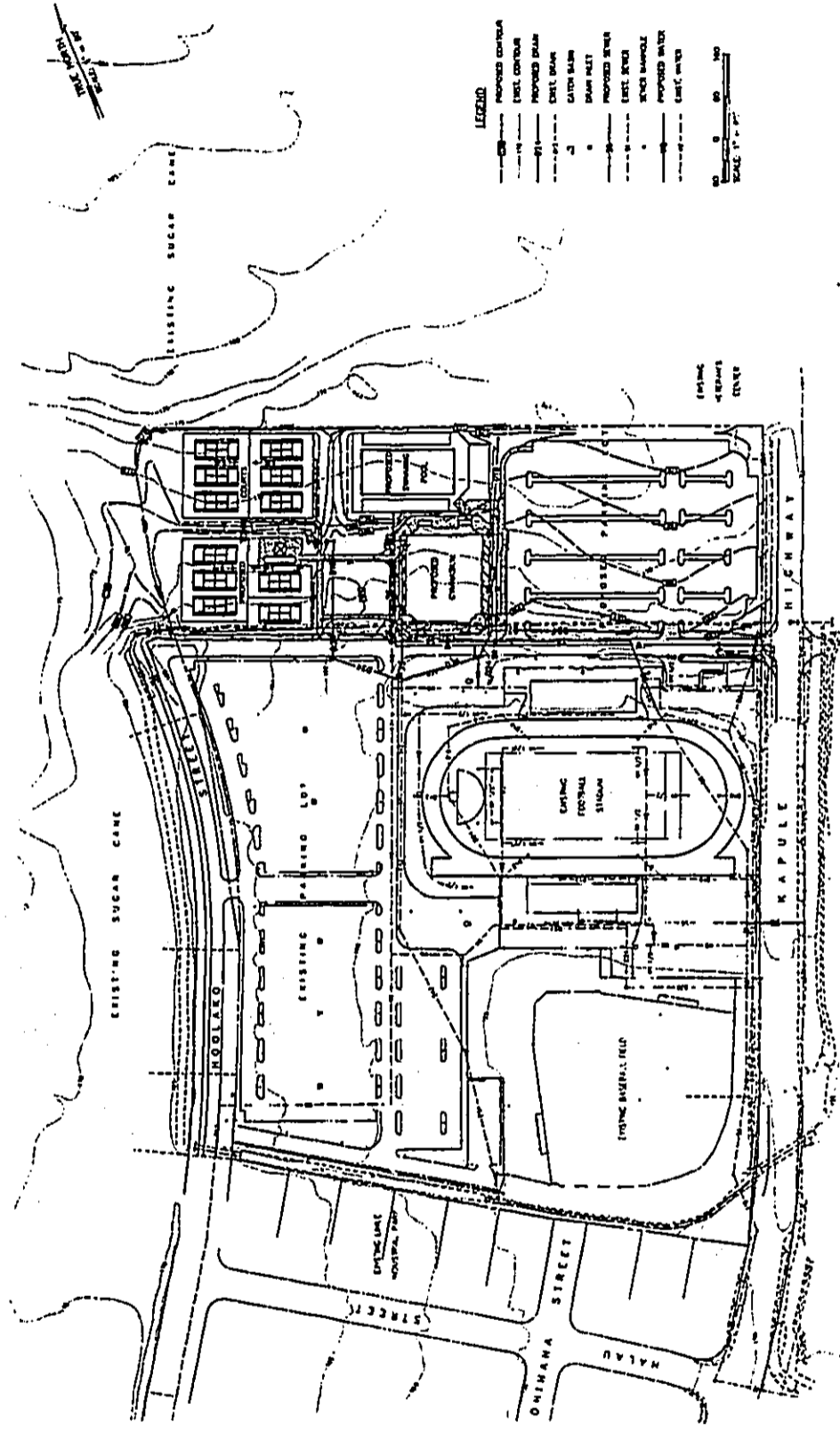
- Rice Street and Hoolako Street
- Kapule Highway and Rice Street
- Kapule Highway and Vidinha Stadium Access
- Kapule Highway and Ahukini Road



PROJECT LOCATION

Figure 1. Location Of Project

REV. DRAFT
9/8/95



LEGEND

---	PROPOSED CONTOUR
---	EXIST. CONTOUR
---	PROPOSED DRAIN
---	EXIST. DRAIN
---	CATCH BASIN
---	DRAIN INLET
---	PROPOSED SEWER
---	EXIST. SEWER
---	SEWER MANHOLE
---	PROPOSED WATER
---	EXIST. WATER

SCALE 1" = 20'

Figure 2. Site Plan

B. Study Area Land Use

1. Existing Surrounding Land Uses

Existing land uses, surrounding the Vidinha Stadium Complex, include the Lihue Industrial Park, located to the south, and sugar cane fields, located to the north and west. The recently completed Veterans Center is located immediately to the north of the project site.

2. Anticipated Future Development

The most significant land development, being planned in the vicinity of the project site, is the Lihue-Hanamaulu Master Plan Development. The 552 acre property, located between Lihue and Hanamaulu, is being developed by AMFAC/JMB Hawaii, Inc. The traffic impact analysis for the project is presented in the "Traffic Impact Report for the Proposed Lihue-Hanamaulu Master Plan Development" by Austin, Tsutsumi & Associates, Inc. (ATA), dated October 5, 1994. The Lihue-Hanamaulu Master Plan Development (LHMP) consists of 1,800 dwelling units, 70 acres of commercial uses, and 128 acres of industrial uses, to be developed over a ten year time frame, beginning in the Year 1997. The development of Phase I of the LHMP coincides with the proposed expansion of the Vidinha Stadium Complex.

Phase I of the LHMP is expected to be fully built-out and occupied by the Year 2001. Phase I includes 552 single-family and multi-family dwelling units, 122,000 square feet of retail floor area, 80,000 square feet of office space, 658,000 square feet of industrial floor area, 188,000 square foot civic center, YMCA, elementary school, and park area.

Other developments being constructed or planned in the vicinity include: the Wal-Mart Store, being constructed on Kuhio Highway; a 180 dwelling unit Molokoa III, located in Lihue, west of the project site; and the 213 dwelling unit Hanamaulu II, located in Hanamaulu.

III. Existing Traffic Conditions

A. Area Roadway System

Regional access to the Vidinha Stadium Complex is provided by two major roadways. Kapule Highway provides access from Hanamaulu and points to the north, via Kuhio Highway. Rice Street provides access from Lihue Town and points to the west, via Kaumualii Highway. Rice Street extends southward to Nawiliwili Harbor, then westward to Kaumualii Highway via Nawiliwili Road.

Kapule Highway is a two lane arterial highway between Hanamaulu and Lihue. Kapule Highway is the continuation of Kuhio Highway near Hanamaulu and terminates at Rice Street to the south in Lihue. Kapule Highway is signalized at its fully channelized four-legged intersection with Ahukini Road with separate left turn, right turn, and through lanes in both directions. Kapule Highway is stop-controlled at its channelized T-intersection with Rice Street.

Rice Street is a two lane arterial street between Lihue and Nawiliwili. Rice Street is the continuation of Kaumualii Highway, west of Lihue Town and terminates in Nawiliwili. Rice Street is unsignalized at its intersections with Hoolako Street and with Kapule Highway. Eastbound Rice Street provides an exclusive left turn lane at Kapule Highway. Separate left turn lanes are not provided at Hoolako Street, however the wide approaches on Rice Street permit through traffic to bypass left turn vehicles. At this writing, the County of Kauai is planning to widen Rice Street to four lanes, between Kaumualii Highway and Kapule Highway.

Ahukini Road is a two lane collector, which provides access to the Lihue Airport. Separate left turn, right turn, and through lanes are provided in both directions on Ahukini Highway at its traffic signalized intersection with Kapule Highway.

Hoolako Street is a two lane collector street which provides access to the Vidinha Stadium Complex through the Lihue Industrial Park. Hoolako Street is stop-controlled at its intersection with Rice Street. At the present time, Hoolako Street terminates at its intersection with the Vidinha Stadium Access Road. The AMFAC/JMB Lihue-Hanamaulu Master Plan proposes to extend Hoolako Street to Ahukini Road. While the extension of Hoolako Street would improve

access to and from the Vidinha Stadium Complex, the time frame, in which the road construction is being planned, is uncertain. Therefore, this traffic impact analysis is based upon the existing stadium access.

The Vidinha Stadium Access Road is a local road between Kapule Highway and Hoolako Street. The Vidinha Stadium Access Road is stop-controlled at its intersection with Kapule Highway. The intersection between Hoolako Street and the Access Road is uncontrolled. The proposed expansion is located on the north side of the Access Road.

B. Existing Traffic Volumes and Conditions

1. General

The proposed Vidinha Stadium Complex Expansion is not expected to have a significant impact on the AM peak hour of traffic, based upon ITE trip rates for tennis courts, indoor arenas, and recreational centers. The most significant traffic impacts are expected from event-related activities at the gymnasium during the early evening prior to the event and during the late evening at the end of the event. Therefore, three periods of traffic are evaluated: the PM commuter peak hour of weekday traffic; the early evening peak hour prior to a special event held at Vidinha Stadium Complex; and the late evening peak hour at the conclusion of the special event.

The existing traffic data was derived from several sources: manual traffic count surveys taken in 1995 for this study during a special event held at Vidinha Stadium; peak traffic count data, taken in May 1994 and presented in the LHMP traffic study, was used to establish the PM commuter peak hour traffic during non-event days; and the 1993 Traffic Survey Data for the Island of Kauai, prepared by the Hawaii State Department of Transportation (DOT); was used to establish the early evening and late evening traffic conditions during non-event days. The 1993 and 1994 data were verified and updated to 1995 conditions.

The field investigation was conducted on June 2, 1995 from 3:00 PM to 10:00 PM, the day when the Kauai High School graduation ceremony was held at Vidinha Stadium. The graduation ceremony began at 7:00 PM and concluded around 9:00 PM. Manual traffic count surveys were conducted at

the intersections listed under the study area. A vehicle occupancy survey also was conducted at the Hoolako Street entrance to Vidinha Stadium parking lot.

2. Capacity Analysis Methodology

The highway capacity analysis performed for this study is based upon procedures presented in the "Highway Capacity Manual" (HCM), Special Report 209, Transportation Research Board, and the "Highway Capacity Software", Federal Highways Administration.

Level of Service (LOS) is defined as "a qualitative measure describing operational conditions within a traffic stream". Several factors are included in determining LOS such as: speed, delay, vehicle density, freedom to maneuver, traffic interruptions, driver comfort, and safety. LOS "A", "B", and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition and LOS "F" is an unacceptable condition.

"Volume-to-capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road's traffic carrying ability. A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50 percent of the roadway's capacity.

3. Existing PM Commuter Peak Hour

The PM commuter peak hour in the vicinity generally occurs between 4:00 PM and 5:00 PM. Figure 3 depicts the existing PM commuter peak hour traffic volumes and results of the Level of Service analysis.

The direction of traffic flow on Kapule Highway is predominantly in the northbound direction (74%), including a heavy left turn movement on eastbound Ahukini Road to northbound Kapule Highway. The intersection of Kapule Highway and Ahukini Road operates at an overall LOS "D" and a v/c ratio of 0.84.

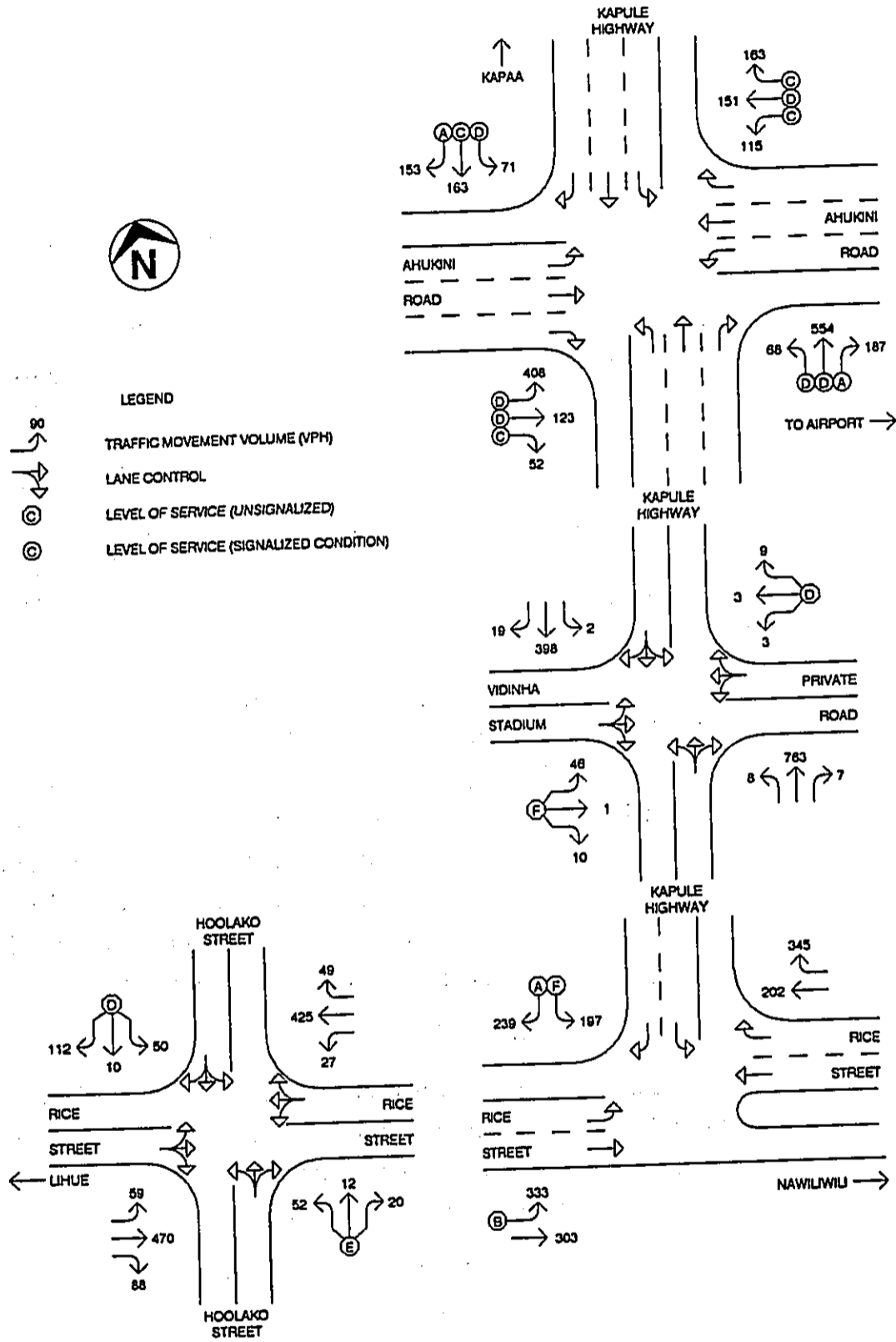


Figure 3. Existing PM Commuter Peak Hour Traffic

The Vidinha Stadium Access Road experiences LOS "E" conditions, during the existing PM commuter peak hour. The traffic delay on the Access Road is due to the heavy traffic and high speeds on Kapule Highway. The traffic flow on Kapule Highway is again primarily in the northbound direction (66%).

The left turn movement from southbound Kapule Highway to eastbound Rice Street experiences LOS "F" conditions during the existing PM commuter peak hour. The traffic delay on the left turn movement from southbound Kapule Highway to eastbound Rice Street is due to the heavy traffic and high speeds on Rice Street. Rice Street experiences heavy left turn and right turn movements to northbound Kapule Highway. The projected traffic demands at the intersection of Rice Street and Kapule Highway currently meet the peak hour volume warrant for traffic signals, according to the "Manual of Uniform Traffic Control Devices For Streets and Highways" (MUTCD), prepared by the Federal Highways Administration, U. S. Department of Transportation.

Hoolako Street at Rice Street experiences LOS "D" and LOS "E" conditions on the southbound and northbound approaches, respectively. The traffic delays on both approaches of Hoolako Street are due to the heavy traffic on Rice Street. Traffic flow on Rice Street is evenly split between eastbound and westbound directions, during the existing PM commuter peak hour. The existing PM commuter peak hour traffic demands at the intersection of Rice Street and Hoolako Street currently meet the minimum peak hour volume warrant for traffic signals, according to the MUTCD.

4. Existing Early Evening Peak Hour

The early PM peak hour between 6:00 PM and 7:00 PM, prior to an event held at Vidinha Stadium, was selected for analysis. Figure 4 depicts the existing early evening peak hour traffic volumes and results of the Level of Service analysis during a typical non-event weekday.

The traffic volumes in the study area, during the early evening, decreases to about one half the PM commuter peak hour traffic demands. The flow of traffic is still predominantly in the northbound direction (66%). The intersections in the study area operate at satisfactory LOS.

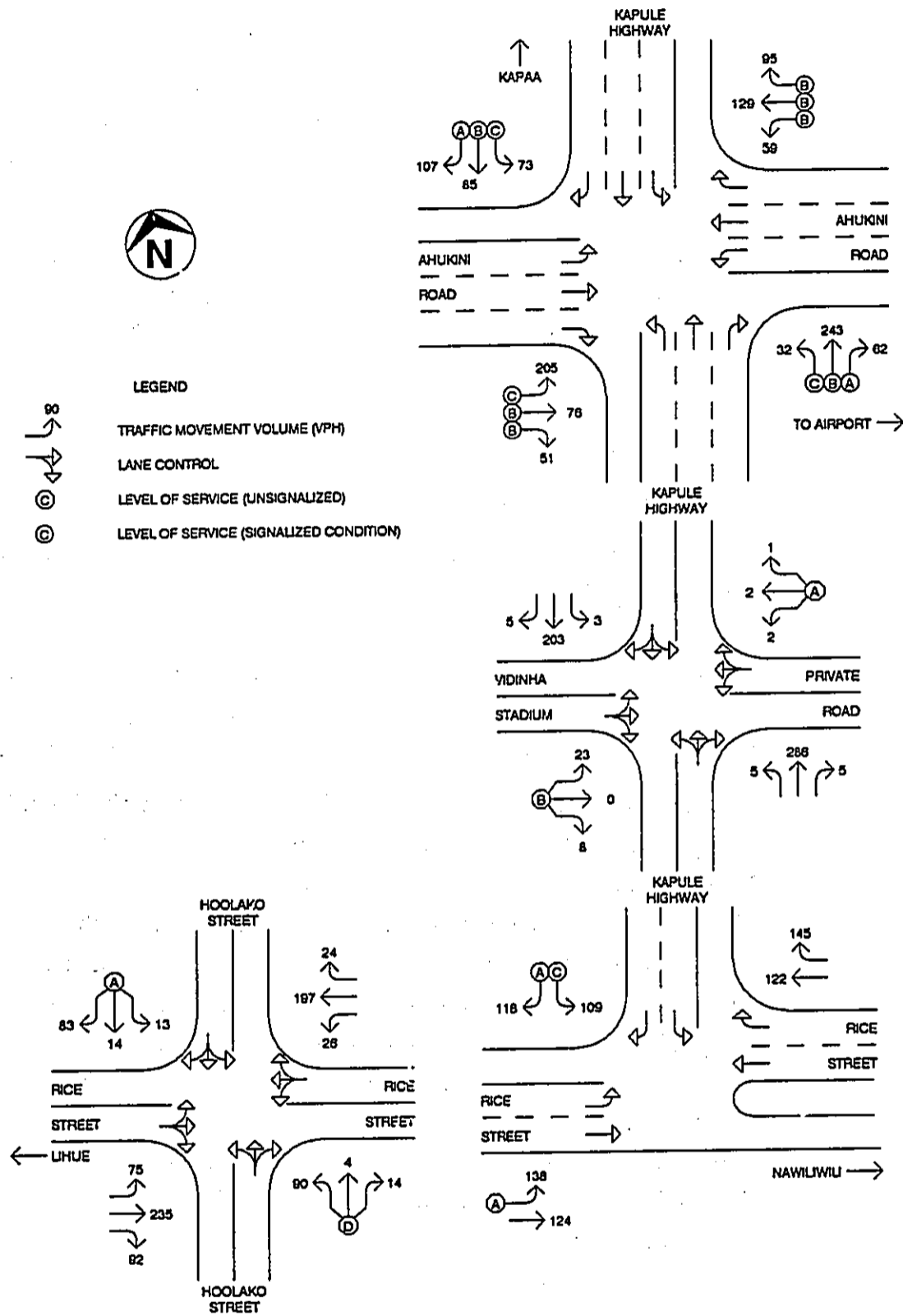


Figure 4. Existing Early Evening Peak Hour Traffic

5. Existing Late Evening Peak Hour

The late PM peak hour between 8:45 PM and 9:45 PM, at the end of an event held at Vidinha Stadium, was selected for analysis. Figure 5 depicts the existing late evening peak hour traffic volumes and results of the Level of Service analysis during a typical non-event weekday.

The traffic volumes in the study area, during the late evening, decreases to about one fourth of the PM commuter peak hour traffic demands. The intersections in the study area operate at satisfactory LOS.

IV. Projected Traffic

A. Site-Generated Traffic

1. Trip Generation Methodology

The commuter peak hour traffic is analyzed under non-event conditions, generated by the proposed expansion. ITE peak hour trip generation rates are not available for a gymnasium or a swimming pool. This study uses the trip rates developed by ITE for a recreational community center, which contains some of the daily activities expected at the proposed expansion. The ITE trip rates for tennis courts are used to analyze the tennis court complex.

The trip generation for a special event, held at the Vidinha Stadium Complex, is analyzed separately. A trip generation study was conducted at Vidinha Stadium during the Kauai High School graduation ceremony in June 1995. The study included manual vehicle counts at both the Hoolako Street and the Kapule Highway accesses to the parking lot and a vehicle occupancy survey at Hoolako Street entrance. Attendance figures were not available for the graduation ceremony. An attendance of 2,500 persons was used for the purpose of the trip generation analysis, based upon the vehicle occupancy survey. About 2,500 persons arrived during the two hours prior to the ceremony. This number corresponds to the 2,500 person seating capacity reserved for the graduation ceremony at the stadium. The estimated attendance is correlated with the observed traffic arriving at the stadium before the beginning of the graduation ceremony.

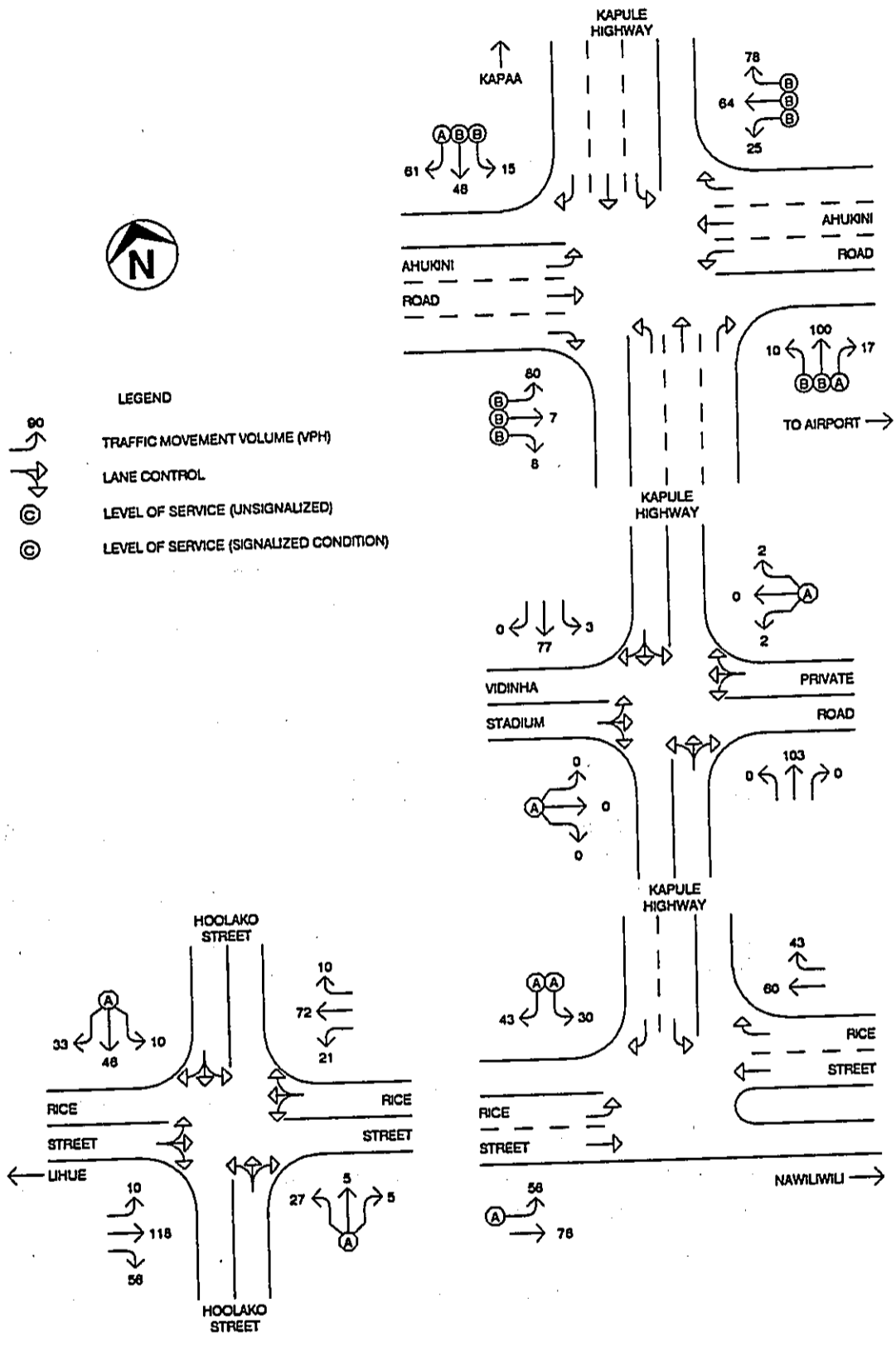


Figure 5. Existing Late Evening Peak Hour Traffic

2. Trip Generation Characteristics

Only the PM peak hour traffic impacts are analyzed for the proposed expansion. The AM peak hour trip generation for proposed expansion is not expected to be significant. The PM commuter peak hour traffic, generated by the proposed expansion, is based upon the building floor areas for the gymnasium and the swimming pool complex and the number of courts contained in the tennis complex.

The proposed expansion is expected to generate a total of 176 vehicles per hour (vph), 69 vph entering the site and 107 vph exiting the site during the PM commuter peak hour. Table 1 summarizes the AM and PM commuter peak hour trip generation characteristics for each component of the proposed expansion.

Table 1. PM Commuter Peak Hour Trip Generation Characteristics						
Facility	AM Peak Hour (vph)			PM Peak Hour (vph)		
	Enter	Exit	Total	Enter	Exit	Total
Gymnasium	12	8	8	22	34	56
Swimming Pool	15	11	19	31	48	79
Tennis Courts	22	16	38	16	25	41
Total	49	35	65	69	107	176

The proposed gymnasium has a seating capacity of up to 5,000 seats. The swimming pool complex can accommodate 1,000 seats. Portable bleachers are available for the tennis courts, however the seating capacity is not available. It is assumed that only one large event will be scheduled at the Vidinha Stadium Complex on any given day at the same time, i.e., simultaneous events would not be held the stadium and the gymnasium. Therefore the largest event that is expected to be held at the Vidinha Stadium Complex is 5,000 persons at either the proposed gymnasium or the existing stadium.

Prior to a 5,000 person event held at the Vidinha Stadium Complex, the proposed expansion is expected to generate at total of 1,674 vph, 1,486 vph entering the site and 188 vph exiting the site. After the 5,000 person event, the proposed expansion is expected to generate at total of 2,284 vph, 198 vph entering the site and 2,086 vph exiting the site. Table 2 summarizes the trip generation characteristics for a 5,000 person special event held at the Vidinha Stadium Complex.

Table 2. Special Event Trip Generation Characteristics			
Independent Variable = 5,000 Seats		ITE Avg Trip Rate	Vehicle Trips
Pre-Event Peak Hr of Generator	Enter	0.297	1486
	Exit	0.038	188
	Total	0.335	1674
Post-Event Peak Hr of Generator	Enter	0.040	198
	Exit	0.417	2086
	Total	0.457	2284

B. External Traffic

1. Traffic Forecast

The Year 2001 was selected as the planning horizon for the traffic impact analysis, when proposed expansion is expected to be completed. The average annual background growth in traffic used in this analysis is based upon historical traffic count data, obtained from the State DOT, and adjusted for the slowdown in Kauai's economy and the resulting effects on traffic. The Kauai economy has yet to recover fully from the effects of Hurricane Iniki, which struck Kauai in September 1992. Traffic data, collected since 1992, reflected the slowdown in the island's economy and were not used in the "traffic forecasting analysis.

The average pre-Iniki growth rate in traffic of 3.0 percent per year is used to update traffic data, obtained from other traffic studies performed in the vicinity, to the existing 1995 traffic conditions. The 3.0 percent annual growth rate is used to estimate the Year 2001 traffic conditions, assuming that Kauai resumes its growth trend within that time frame.

2. Future Off-Site Traffic In Study Area

Future off-site traffic generated within the study area is based upon the Phase I trip generation characteristics of the Lihue-Hanamaulu Master Plan (LHMP), developed in the "Traffic Impact Report for the Proposed Lihue-Hanamaulu Master Plan Development" by Austin, Tsutsumi & Associates, Inc. (ATA). The ATA study also includes the trip generation analysis for the Wal-Mart Store, Molokoa III, Hanamaulu II developments.

The ATA study did not present trip generation characteristics for these projects during the off-peak hours, such as during the early and late evenings. Furthermore, ITE has not developed trip generation rates during the off-peak periods. For the purpose of this analysis, it is assumed that the early PM peak hour trip generation for future projects in the study area is 80 percent of the PM commuter peak hour trip generation characteristics. It is further assumed that the late PM peak hour trip generation is 20 percent of the PM commuter peak hour trip generation characteristics.

C. Year 2001 Traffic Analysis Without the Proposed Expansion

1. General

The off-site traffic, generated within the vicinity of the proposed expansion, was added to the background growth in traffic to arrive at the Year 2001 traffic conditions without the proposed expansion. The planned developments around the Vidinha Stadium Complex are expected to increase traffic demands on the existing roadways within the study area. There are several roadway improvements, proposed by State DOT, the County of Kauai, and private developers, that are currently in the planning stages.

The County of Kauai is proposing to widen Rice Street from two (2) lanes to four (4) lanes between Kapule Highway and Kuhio Highway. It is further recommended that the Hoolako Street be restriped at Rice Street to provide an exclusive left turn lane and a shared through/right turn lane in the

northbound direction and a shared left turn/through lane and an exclusive right turn lane in the southbound direction. The County also proposes to signalize the intersection of Rice Street and Hoolako Street. The proposed Rice Street improvements are expected to begin construction in 1999. The traffic analysis, without the proposed expansion, includes the proposed Rice Street improvements.

The State Department of Transportation is planning to signalize the intersection of Kapule Highway at Hao Street and Halau Street. This intersection is located between the Vidinha Stadium access roadway and Rice Street.

2. PM Commuter Peak Hour Traffic Without the Proposed Expansion

The Year 2001 PM commuter peak hour traffic demand without the proposed expansion is expected to exceed the carrying capacity of the existing intersection of Kapule Highway and Ahukini Road. Kapule Highway, north of Ahukini Road, also is expected to reach the capacity of the two lane highway. Critical traffic movements at the intersection operate at LOS "F". Without any improvements, the extreme delays, experienced by motorists during the PM commuter peak hour, would likely divert northbound traffic to Kuhio Highway.

The projected traffic volumes on Kapule Highway at the Vidinha Stadium Access Road would result in LOS "E" conditions on unsignalized side streets during the Year 2001 PM commuter peak hour without the proposed expansion. However, the traffic volumes on the Access Road remain relatively low during the PM commuter peak hour without the proposed expansion, and would not meet minimum peak hour volume warrant for traffic signals, according to the MUTCD.

The left turn movement from southbound Kapule Highway to eastbound Rice Street would continue to operate at LOS "F", under unsignalized conditions. The left turn movement from eastbound Rice Street to northbound Kapule Highway also would operate at LOS "F" during the Year 2001 PM commuter peak hour without the proposed expansion.

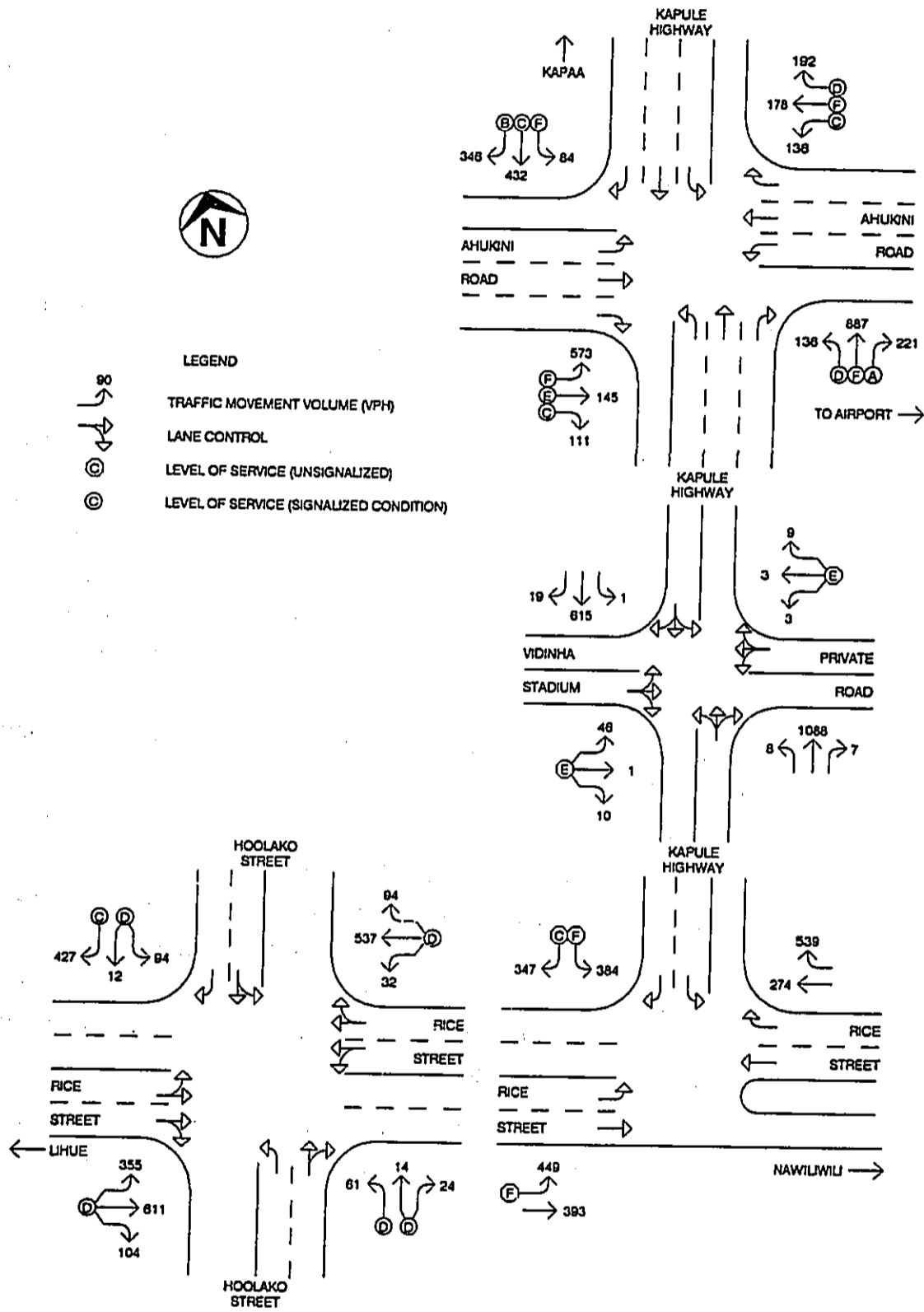


Figure 6. Year 2001 PM Commuter Peak Traffic W/O Project

3. Early Evening Peak Hour Traffic Without the Proposed Expansion

By the Year 2001, the left turn movement from southbound Kapule Highway to eastbound Rice Street would continue to operate at LOS "F" during the early evening peak hour without the proposed expansion. The intersection of Rice Street and Hoolako Street is expected to operate at LOS "C" during the early evening, under signalized conditions. Figure 7 depicts the Year 2001 early evening peak hour traffic without the proposed expansion.

4. Late Evening Peak Hour Traffic Without the Proposed Expansion

During the late evening, traffic volumes decline significantly. All the intersections, within the study area, are expected to operate at satisfactory LOS without the proposed expansion. Figure 8 depicts the late evening peak hour traffic without the proposed expansion.

V. Cumulative Traffic With the Proposed Expansion

A. General

The proposed expansion is not expected to significantly impact the AM commuter peak hour traffic, therefore it is not included in this traffic impact analysis. The proposed expansion is expected to impact the PM commuter peak hour traffic and the early and late evening traffic during large special events held at the Vidinha Stadium Complex.

The trips, generated during the PM commuter peak hour by the proposed expansion, are superimposed over the Year 2001 PM commuter peak hour conditions without the proposed expansion. The PM commuter peak hour traffic impacts, resulting from the proposed expansion, can be considered daily occurrences under normal conditions.

The traffic impacts, resulting from a 5,000 person event held at the existing stadium complex, could already occur without the proposed expansion. The proposed gymnasium complex could accommodate up to a 5,000 seating capacity. It is assumed that simultaneous events will not be scheduled at the Vidinha Stadium Complex, therefore the largest event expected would remain the 5,000 person event. While the size of the special event remains the same with or without the proposed expansion, the proposed gymnasium would provide the

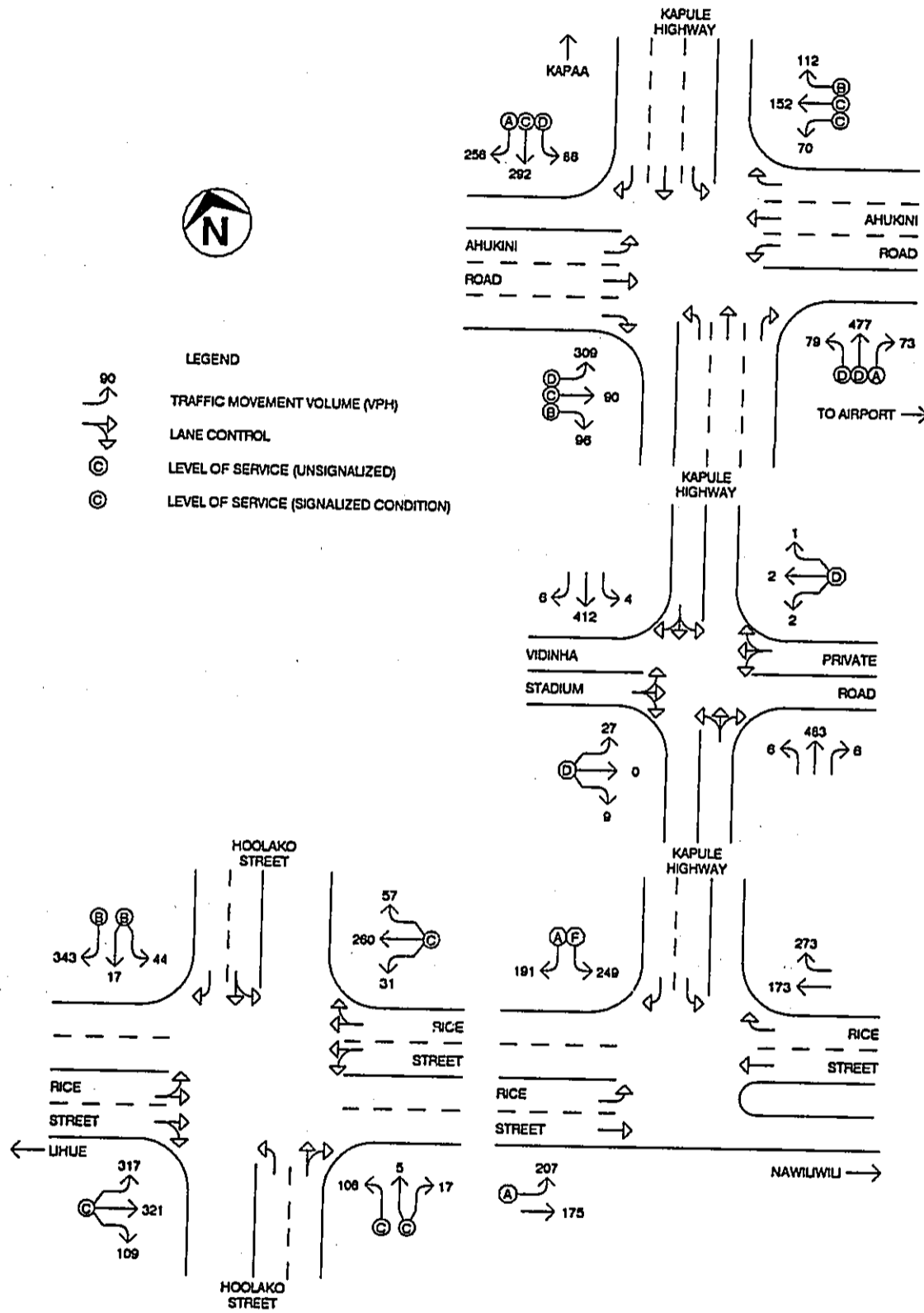


Figure 7. Year 2001 Early Eve Peak Hr Traffic W/O Project

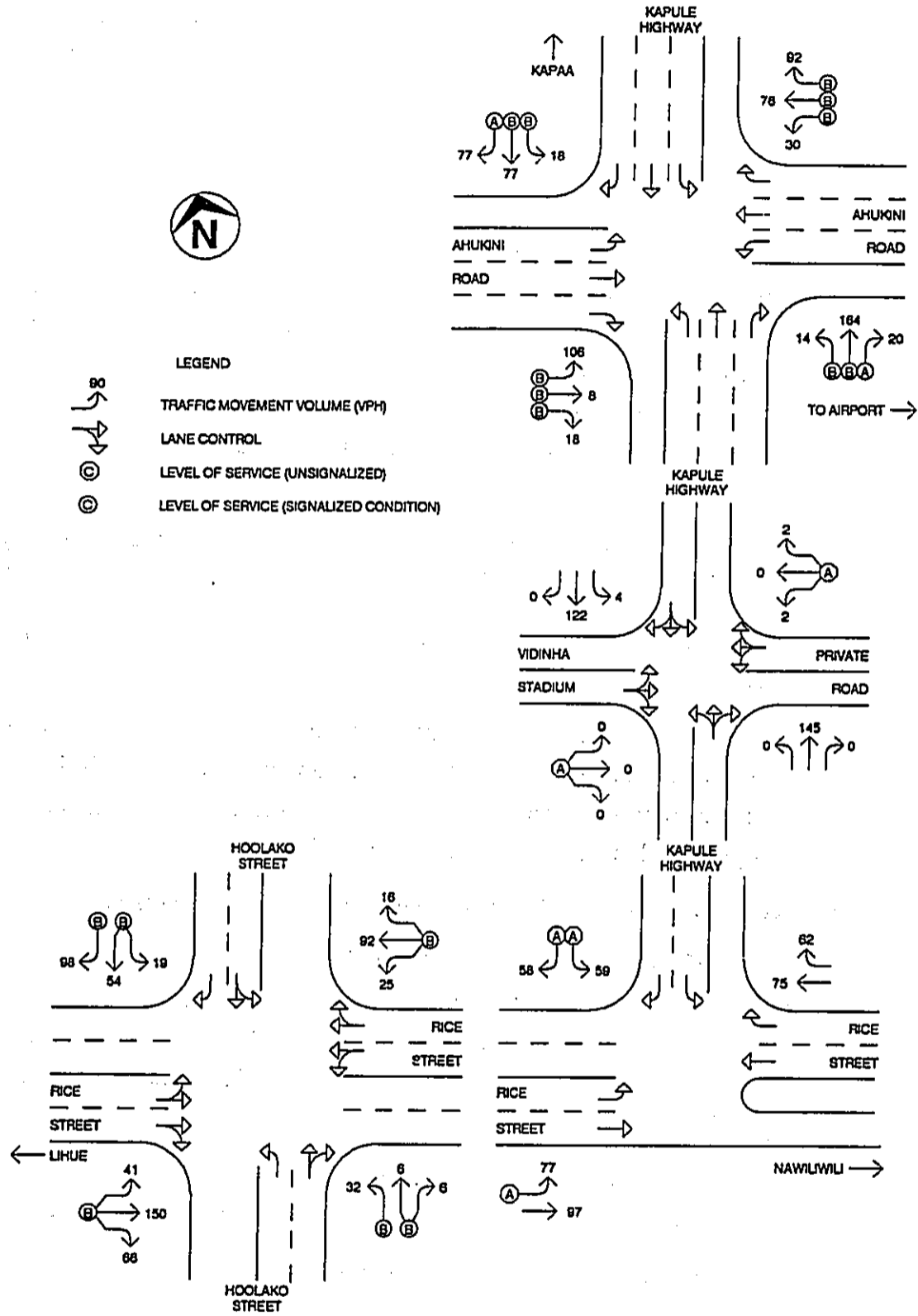


Figure 8. Year 2001 Late Eve Peak Hr Traffic W/O Project

venue for basketball and volleyball games as well as non-sporting events requiring an enclosed arena. Therefore, the traffic impact analysis of a 5,000 person special event is analyzed in this study.

**B. Traffic Improvements Assumed To Be Implemented
Prior To The Proposed Expansion**

Several roadway deficiencies are identified in the analysis of the Year 2001 traffic conditions without the proposed expansion. The required traffic improvements are assumed to be implemented in a timely manner by their respective government agencies or by private developers as conditions of approval for their projects. The traffic impact analysis is performed assuming the following traffic improvements are implemented to mitigate the Year 2001 traffic impacts without the proposed expansion.

1. Kapule Highway would be widened to a four-lane divided highway, between Kuhio Highway and a point south of Ahukini Road (State-proposed).
2. The intersection of Rice Street and Kapule Highway would be signalized (County-proposed).
3. Hoolako Street would be restriped at Rice Street to provide two lane approaches: an exclusive left turn lane and a shared through/right turn lane in the northbound direction; and a shared left turn/through lane and an exclusive right turn lane in the southbound direction.

C. Access Improvements Required With the Proposed Expansion

The Kapule Highway access to the Vidinha Stadium Complex would require additional improvements as a result of the proposed expansion. The traffic impact analysis is performed assuming the following access improvements are implemented to mitigate the Year 2001 traffic impacts with the proposed expansion.

1. Kapule Highway should be widened to provide exclusive left turn lanes in both directions at its intersection with the Vidinha Stadium Access Road.
2. Southbound Kapule Highway should be widened to provide an exclusive right turn lane at the Vidinha Stadium Access Road.

3. The Vidinha Stadium Access Road should be widened to provide an exclusive right turn lane and a shared through/left turn lane at Kapule Highway.

D. Traffic Impact Analysis

1. PM Commuter Peak Hour Analysis With the Proposed Expansion

The recommended improvements, required by the Year 2001 without the proposed project, are expected to mitigate the traffic impacts resulting from the proposed expansion. The intersection of Kapule Highway and Ahukini Road is expected to operate at an overall LOS "C" and a v/c ratio of 0.84 during the PM commuter peak hour. The left turn movement on the Vidinha Stadium Access Road at Kapule Highway is expected to continue to operate at LOS "F" during the PM commuter peak hour. However, the side street traffic demand is not expected to meet the minimum MUTCD peak hour volume warrant for traffic signals. The intersection of Rice Street and Hoolako Street is expected to operate at an overall LOS "D" during the PM commuter peak hour. The signalized intersection of Rice Street and Kapule Highway is expected to operate at LOS "B" during the PM commuter peak hour. Figure 9 depicts the PM commuter peak hour traffic with the proposed expansion.

2. Pre-Event Peak Hour Analysis

The intersection of Rice Street and Hoolako is expected to operate at an overall LOS "D" and a v/c ratio of 0.92 prior to a special event held at the Vidinha Stadium Complex. The critical movements on every approach are expected to operate at LOS "E". The left turn movement on the Vidinha Stadium Access Road at Kapule Highway would continue to operate at LOS "F". The Rice Street intersections at Hoolako Street and at Kapule Highway are expected to operate at LOS "D" and LOS "B", respectively, prior to a special event held at the Vidinha Stadium Complex. Figure 10 depicts the pre-event peak hour traffic with the proposed expansion.

3. Post-Event Peak Hour Analysis

The traffic impacts after a special event, held at the Vidinha Stadium Complex, are egress-oriented, i.e., traffic congestion would result from vehicles exiting the parking lot. The left turn movement from the Vidinha Stadium Access Road to northbound Kapule Highway and the right turn

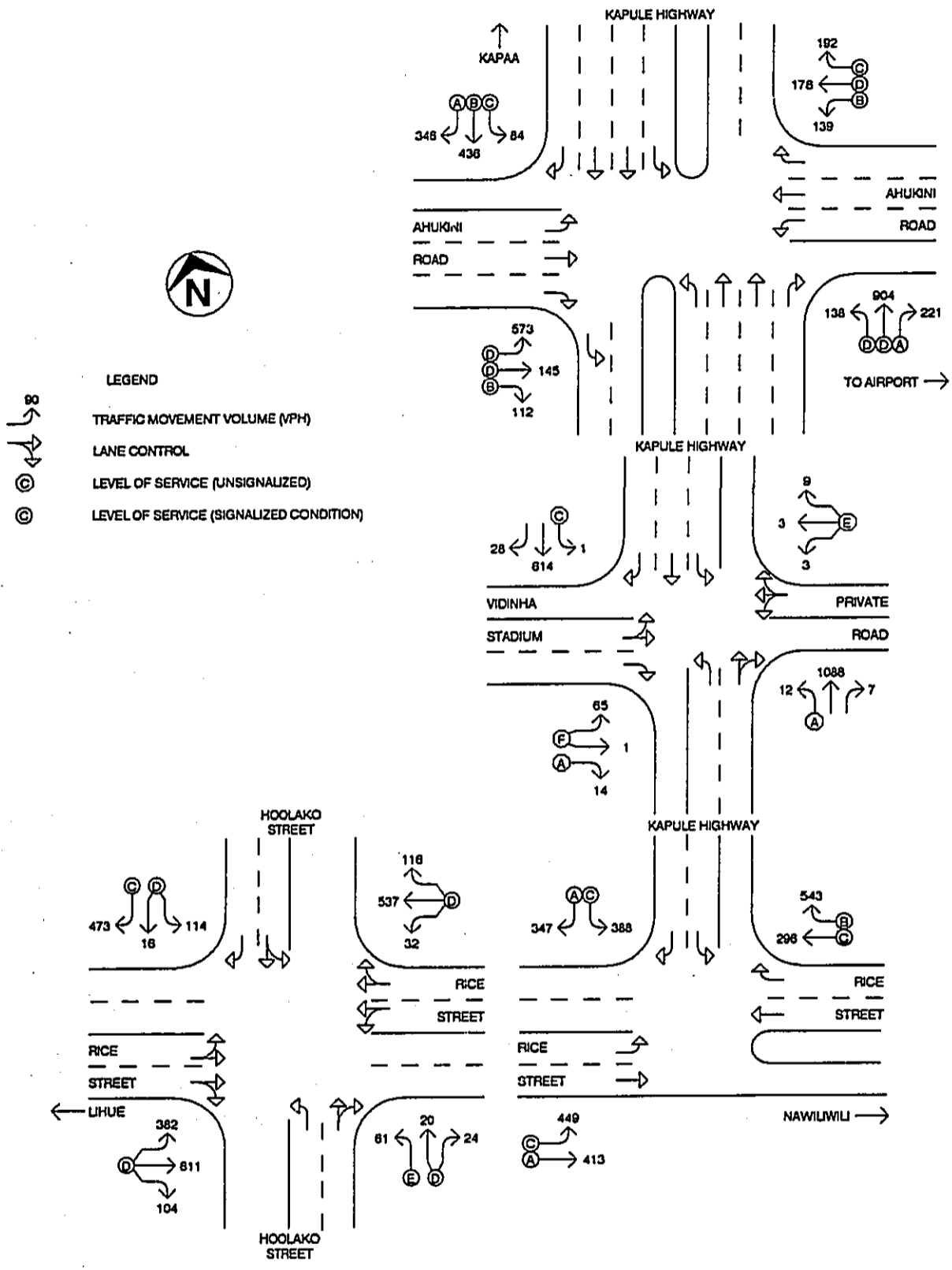


Figure 9. Cumulative PM Commuter Peak Traffic W/Project

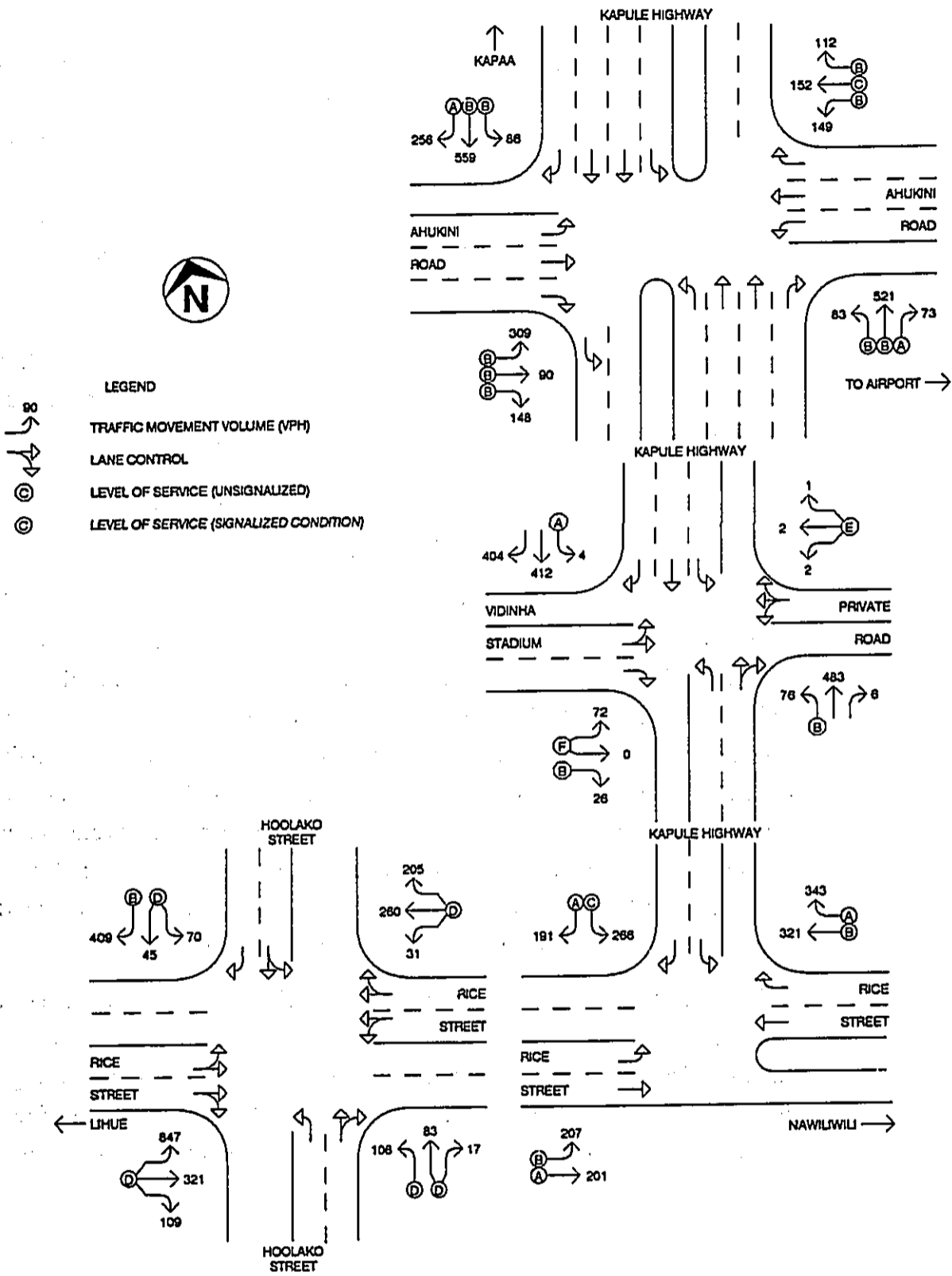


Figure 10. Cumulative Pre-Event Peak Traffic With Project

movement on southbound Hoolako Street to westbound Rice Street are expected to operate at LOS "F". The Rice Street intersections at Hoolako Street and at Kapule Highway are expected to operate at LOS "D" and LOS "B", respectively, after a special event held at the Vidinha Stadium Complex. Since these traffic impacts are associated with special events, operational measures would be appropriate to mitigate these short term effects. Figure 11 depicts the post-event peak hour traffic with the proposed expansion.

E. Parking Impacts

The existing parking lot accommodates about 748 vehicles. An additional 355 parking spaces can be made available on the existing baseball field. The proposed expansion includes a 393-stall parking lot. The parking within the stadium complex would be 1,496 stalls. Another 100 stalls can be accommodated on both sides of Hoolako Street and the Vidinha Stadium Access Road, fronting the stadium complex, for a total of 1,596 stalls.

The vehicle occupancy survey was conducted during the June 1995 Kauai High School graduation ceremony held at Vidinha Stadium. The average vehicle occupancy observed was 2.4 persons per vehicle. Based upon the trip generation study performed for Vidinha Stadium, it is estimated that about 90 percent of vehicles arriving at the stadium complex park on site and the remaining 10 percent drops off their passengers and exit the site. Applying the average vehicle occupancy rate of 2.4 persons per vehicle to a 5,000 person event, about 2,083 vehicles would arrive at the stadium complex prior to the event; 90 percent of which (1,875 vehicles) would require parking on site. The excess parking demand of about 280 vehicles can be accommodated by off-site parking.

The private parking lots in the Lihue Industrial Park are generally not utilized in the evenings and provide opportunities for off-site parking for a fee within walking distance of the stadium complex. Free on street parking in the surrounding neighborhood also is available. Finally, parking and traffic impacts can be further mitigated by transporting people to and from the stadium complex by bus.

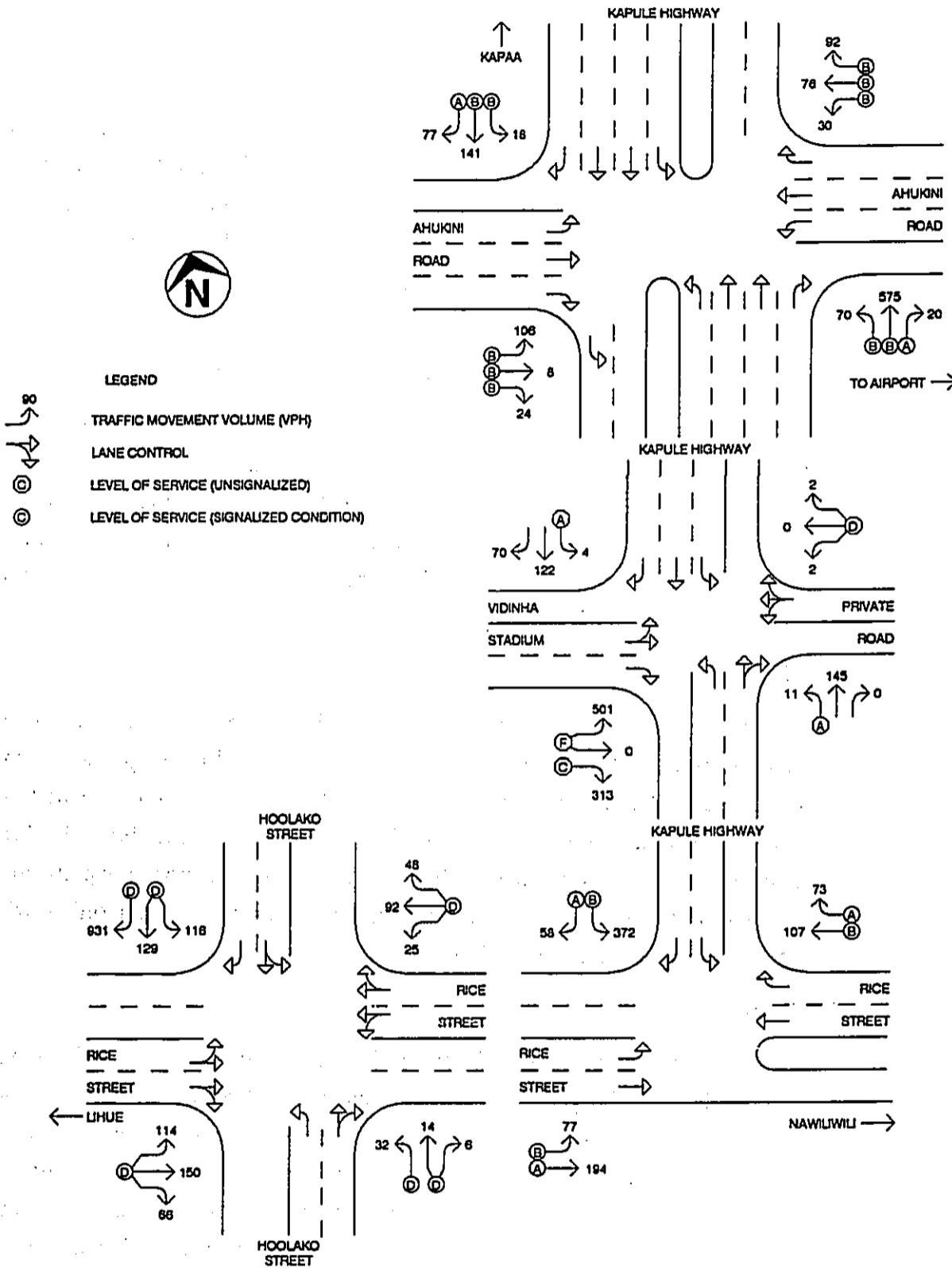


Figure 11. Cumulative Post-Event Peak Traffic With Project

VI. Findings

A. Existing Roadway Deficiencies

The existing PM commuter peak hour traffic demands at the intersection of Rice Street and Kapule Highway meet the MUTCD peak hour volume warrant for traffic signals. Traffic signalization would mitigate the LOS "F" conditions on the left turn movement from southbound Kapule Highway to eastbound Rice Street. Existing traffic demands, during the early and late evening, are relatively light and do not create any significant congestion.

B. Future Roadway Deficiencies Without the Proposed Expansion

Road deficiencies expected by the Year 2001 are primarily a result of Phase I of the Lihue-Hanamaulu Master Plan Development. The intersections of Kapule Highway at Ahukini Road, Rice Street at Kapule Highway, and Rice Street at Hoolako Street operate at LOS "F" during the PM commuter peak hour without the proposed expansion. These Rice Street intersections continue to operate at LOS "F" into the early evening.

C. Site Access

Existing site access is limited to Hoolako Street and the Vidinha Stadium Access Road. The extension of Hoolako Street and other proposed roadways, proposed in the Lihue-Hanamaulu Master Plan Development network, improve access between Lihue and the Vidinha Stadium Complex. Hoolako Street and Rice Street requires traffic signalization without the proposed expansion. Traffic congestion at the Kapule Highway access is expected to occur only during large special events held at the stadium complex.

D. Traffic Impacts

The PM commuter peak hour traffic impacts for the proposed expansion are not significant. Large special events held at the Vidinha Stadium Complex are expected to impact the surrounding streets. While these events may already occur infrequently at the existing stadium, the proposed gymnasium provides additional opportunities for other large events requiring an indoor venue. The traffic, generated by the proposed expansion prior to and after a special event,

occurs during a brief period, where traffic converges and disperses over a one hour period. The traffic impacts generally occur at the access points to the stadium complex.

VII. Recommendations

A. Recommended Improvements Required Without the Proposed Expansion

1. Kapule Highway should be widened to a four-lane divided highway north of Ahukini Road (State-proposed).
2. Rice Street should be widened to four lanes, two through lanes in each direction from Kaumualii Highway to Kapule Highway (County-proposed).
3. Southbound Hoolako Street should be restriped at Rice Street to provide a shared left turn/through lane and an exclusive right turn lane.
4. Northbound Hoolako Street should be restriped at Rice Street to provide an exclusive left turn lane and a shared through/right turn lane.
5. The intersection of Rice Street and Hoolako Street should be signalized (County-proposed).
6. The intersection of Rice Street and Kapule Highway should be signalized.

B. Recommended Access Improvements Required With the Proposed Expansion

1. Kapule Highway should be widened to provide exclusive left turn lanes in both directions at its intersection with the Vidinha Stadium Access Road.
2. Southbound Kapule Highway should be widened to provide an exclusive right turn lane at the Vidinha Stadium Access Road.
3. The Vidinha Stadium Access Road should be widened to provide an exclusive right turn lane and a shared through/left turn lane at Kapule Highway.

C. Operational Measures

Operational measures are recommended to mitigate the special event traffic impacts. Since these traffic impacts are non-recurring and infrequent, operational measures are appropriate to mitigate their effects. A traffic control officer should be stationed at the intersections of Kapule Highway at the Vidinha Stadium Access Road to maintain efficient traffic flow and pedestrian safety.

The traffic control officer at the intersection of Kapule Highway and the Vidinha Stadium Access Road may have to stop traffic on Kapule Highway to permit the stadium complex traffic to safely turn left onto the highway.

After the end of a major event held at the Vidinha Stadium Complex, the lane use controls on southbound Hoolako Street at Rice Street should be modified to permit right turn movement from the shared left turn/through lane, in addition to the exclusive right turn lane. This modification can be accomplished through temporary signing and coning.

D. Traffic Demand Management Actions

Traffic and parking impacts can be mitigated by providing bus service between an off-site parking lot and the stadium complex. During inter-scholastic sporting events, students can be transported between the school campus and the stadium by bus. Other off-site parking facilities can be provide for the general public with bus service to and from the stadium complex. Fees can be charged for parking within the stadium complex to encourage ride-sharing.

VIII. Conclusions

The traffic impacts, resulting from the proposed Vidinha Stadium Complex Expansion, are not expected to be significant during the AM and PM commuter peak hours. Regional traffic improvements are required by other developments planned in the vicinity, without the proposed expansion. The recurring traffic impacts of the proposed stadium expansion, i.e., traffic impacts during the commuter peak hours of traffic, are not considered significant. The most significant traffic impacts are expected to occur during large special events held at the Vidinha Stadium Complex. The recommended traffic improvements, presented herein, are expected to mitigate the traffic impacts resulting from the proposed Vidinha Stadium Complex Expansion.

APPENDIX C

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



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

October 20, 1998

RECEIVED

OCT 23 1998

AKINAKA & ASSOCIATES, LTD.

LAWRENCE MIKE
DIRECTOR OF -E.S.-

In reply, please refer to:

98-208/epo

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka & Associates, Ltd.
250 North Beretania Street, suite 300
Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Subject: Pre-Assessment Consultation
Vidinha Stadium Complex Expansion
Lihue, Kauai
TMK: 3-6-2: 16 & 18

Thank you for the opportunity to review and comment on the subject project prior to the preparation of a Draft Environmental Assessment (DEA). Based on our review of the document and our on-site survey of the property, we offer the following comments for your consideration.

1. The wastewater generated by the proposed project shall be disposed into the existing County sewer system serving the Lihue area.
2. The proposed project may be impacted by agricultural associated nuisances such as fugitive dust, agricultural burning and pesticide/fertilizer application from the nearby and adjacent sugarcane fields.
3. Noise generated during construction of the project and when the facility is in operation may impact the users of the adjacent Veteran's Center. The applicable requirements of Title 11, Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control," shall be complied with.

Although Chapter 11-46 does not address noise from stadiums and airports, the Kauai District Health Office has already received complaints from the residents of the nearby Molokoa Subdivision of noise from events held at the existing Vidinha Stadium

complex. Complaints of aircraft noise and exhaust emissions from the cars of the participants, spectators and stadium employees have also been received.

4. Fugitive dust emissions during site preparation and construction of the project may impact the nearby residents, businesses, and stadium complex users. This concern and mitigative measures should be addressed to ensure compliance with HAR, Title 11, Chapter 11-60.1, "Air Pollution Control."
5. The solid waste generated by this project (grubbed material, construction waste, etc.) shall be disposed in accordance with the applicable provisions of HAR, Title 11, Chapter 11-58.1, entitled "Solid Waste Management Control." Disposal of any of these wastes by burning is prohibited.
6. The proposed project site is ten (10) acres in size. Unless the stormwater runoff from the project site is contained on the property, it will enter into storm drains that eventually discharge into State waters. In accordance with HAR, Title 11, Chapter 11-55, entitled "Water Pollution Control," the property owner/developer shall be responsible for ensuring that best management practices (BMP) are provided to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters. These measures should be addressed in some detail in the DEA.
7. The property owner/developer shall obtain all applicable permits from the Department of Health, Clean Water Branch, including but not limited to National Pollution Discharge Elimination System (NPDES) permits for storm water, hydrostatic test and dewatering prior to commencing construction.
8. Swimming pools of the size being proposed usually use gaseous chlorine for disinfection. Should a chlorine gas release occur, the businesses, residents and others downwind of the site will be affected. If gaseous chlorine is to be used, the EA should address the precautionary measures that will be taken to prevent releases from occurring.
9. Due to the general nature of the application submitted, we reserve the right to implement future

Mr. Henry S. Morita
October 20, 1998
Page 3

98-208/epo

environmental health restrictions when more detailed
information is submitted.

Should you have any questions, please call Mr. Clyde Takekuma,
District Environmental Health Program Chief, Kauai District
Health Office, at 241-3323.

Sincerely,



BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: KDHO
NR&IAQB
CAB



AKINAKA & ASSOCIATES, LTD.

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CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Bruce S. Anderson, Director
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Anderson:

Thank you for your comment letter, dated October 20, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "The wastewater generated by the proposed project shall be disposed into the existing County sewer system serving the Lihue area."

RESPONSE: All wastewater generated by the proposed project will be disposed into the existing County sewer system. The necessary permits for the proposed discharge will be coordinated with the County's Division of Wastewater Management.
2. COMMENT: "The proposed project may be impacted by agricultural associated nuisances such as fugitive dust, agricultural burning and pesticide / fertilizer application from the nearby and adjacent sugarcane fields."

RESPONSE: The proposed stadium expansion should not incur impacts greater than those already experienced by the existing stadium facilities. The nearby agricultural area will be greatly reduced upon completion of the Molokoa Subdivision Expansion and the planned government facilities. Should impacts from agricultural-related nuisances be excessive, the County will attempt to coordinate events with the Lihue Plantation Company (owner of the adjacent sugar cane fields). The Lihue Plantation Company has been contacted during the pre-assessment consultation period.
3. COMMENT: "Noise generated during construction of the project and when the facility is in operation may impact the users of the adjacent Veteran's Center. The applicable requirements of Title 11, Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control," shall be complied with.

Although Chapter 11-46 does not address noise from stadiums and airports, the Kauai District Health Office has already received complaints from the residents of the nearby Molokoa Subdivision of noise from events held at the existing Vidinha Stadium complex. Complaints of aircraft noise and exhaust emissions from the cars of the participants, spectators and stadium employees have also been received."

RESPONSE: Unavoidable short-term noise impacts are expected during construction activities. However, these noise impacts will be minimized through compliance with the provisions of Chapter 11-46 and 11-42. Unnecessary noise will be reduced by adequate and proper maintenance of construction equipment and vehicles.

Noise impacts from the proposed project and the anticipated increase of vehicle emissions will be discussed in the draft EA. Additional noise is expected to be produced from the proposed tennis courts and swimming pool area. Since field lights are proposed for the existing baseball field, additional noise may be generated if evening games are held. However, the noise to be generated from the proposed stadium expansion should not be greater than the noise already produced from the existing stadium complex when large events are held.

4. **COMMENT:** "Fugitive dust emissions during site preparation and construction of the project may impact nearby residents, businesses and stadium complex users. This concern and mitigative measures should be addressed to ensure compliance with HAR, Title 11 Chapter 11-60.1, 'Air Pollution Control.'"

RESPONSE: In addition to noise impacts, construction activities are expected to generate short term air quality impacts. Dust controls will be provided by the Contractor and all control measures to be used shall comply with HAR, Title 11, Chapters 59 and 60, as well as all other applicable county ordinances. Short term air quality impacts the proposed mitigative measures will be discussed in the draft EA.

5. **COMMENT:** "The solid waste generated by this project (grubbed material, construction waste, etc.) shall be disposed in accordance with the applicable provisions of HAR, Title 11, Chapter 11-58.1, entitled, 'Solid Waste Management Control.' Disposal of any of these wastes by burning is prohibited."

RESPONSE: All solid waste generated at the construction site of the proposed project shall be properly disposed in accordance with HAR, Title 11, Chapter 11-58.1. No solid waste shall be burned on-site.

6. COMMENT: "The proposed project site is ten (10) acres in size. Unless the stormwater runoff from the project site is contained on the property, it will enter into storm drains that eventually discharge into State waters. In accordance with HAR, Title 11, Chapter 11-55, entitled 'Water Pollution Control,' the property owner/developer shall be responsible for ensuring that best management practices (BMP) are provided to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters. These measures should be addressed in some detail in the DEA."

RESPONSE: The method of disposal for stormwater runoff generated from the proposed project site will be determined in the project's drainage report. Should discharge into the State's storm drain system be required, the appropriate connection and discharge permits will be obtained from the respective State agency. Best management practices to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters shall be addressed in the Draft EA.

7. COMMENT: "The property owner/developer shall obtain all applicable permits from the Department of Health, Clean Water Branch, including but not limited to National Pollution Discharge Elimination System (NPDES) permits for storm water, hydrostatic test and dewatering prior to commencing construction."

RESPONSE: All applicable NPDES permits shall be obtained from the Department of Health, Clean Water Branch prior to the start of construction.

8. COMMENT: Swimming pools of the size being proposed usually use gaseous chlorine for disinfection. Should a chlorine gas release occur, the businesses, residents and others downwind of the site will be affected. If gaseous chlorine is to be used, the EA should address the precautionary measures that will be taken to prevent releases from occurring."

RESPONSE: Should gaseous chlorine be used for the proposed swimming pool, precautionary measures to prevent potential chlorine gas releases shall be discussed in the Draft EA.

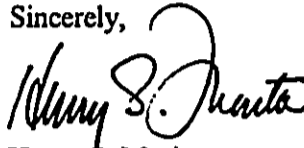
9. COMMENT: "Due to the general nature of the application submitted, we reserve the right to implement future environmental health restrictions when more detailed information is submitted."

RESPONSE: We acknowledge that the Department of Health may implement future environmental health restrictions to the proposed project as more detailed information becomes available.

Page 4
Mr. Anderson
March 5, 1999

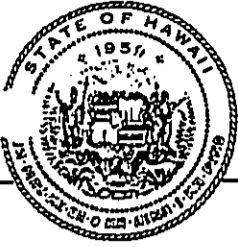
Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

OFFICE OF PLANNING

235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel.: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-7331

October 8, 1998

RECEIVED
OCT 14 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Dear Mr. Morita:

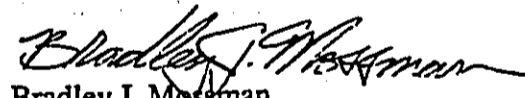
Subject: Pre-Assessment Consultation for the Vidinha Stadium Complex
Expansion Project, Lihue, Kauai, Hawaii, TMK: (4) 3-6-02-16 & 18

Based on the information provided, it is difficult to determine the present land use classification for the proposed project. The draft environmental assessment (EA) should address this as well as incorporate an assessment of the project's compliance with the Coastal Zone Management Program's (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes, in accordance with the Office of Environmental Quality Control's administrative rule.

The EA should also address the potential impacts to water quality due to the proposed expansion of the existing sewer, water and drainage systems. We recommend that a thorough discussion of this issue and the project's mitigation measures to control polluted runoff from the project site during and after construction be incorporated into the document.

If there are any questions, please contact Susan Feeney of our CZM Program at 587-2820.

Sincerely,


Bradley J. Mossman
Director
Office of Planning

cc: Seiji F. Naya



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

ROBERT Y. AKINAKA, L.P.E.
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SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Bradley Mossman, Director
Office of Planning
Department of Business, Economic Development & Tourism
State of Hawaii
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Mossman:

Thank you for your comment letter, dated October 8, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

- COMMENT:** "Based on the information provided, it is difficult to determine the present land use classification for the proposed project. The draft environmental assessment (EA) should address this as well as incorporate an assessment of the project's compliance with the Coastal Zone Management Program's (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes, in accordance with the Office of Environmental Quality Control's administrative rules."

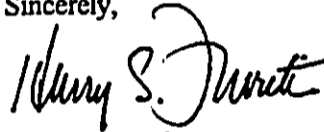
RESPONSE: The land use classification for the proposed project will be addressed in the Draft EA. The County of Kauai, Department of Public Works shall be in compliance with the Coastal Zone Management objectives and policies in accordance with Chapter 205A, HRS and the administrative rules of the Office of Environmental Quality Control.
- COMMENT:** "The EA should also address the potential impacts to water quality due to the proposed expansion of the existing sewer, water and drainage systems. We recommend that a thorough discussion of this issue and the project's mitigation measures to control polluted runoff from the project site during and after construction be incorporated into the document."

Page 2
Mr. Mossman
March 5, 1999

RESPONSE: The appropriate National Pollutant Discharge Elimination System (NPDES) general permits will be secured from the State Department of Health (D.O.H.) to regulate any discharges to State waters. D.O.H. approved best management practices will be employed by the selected Contractor during construction of the proposed drainage improvements. In addition, project specifications will require the Contractor to take appropriate measures during construction to prevent any fuel, oil, or cement products from discharging or leaching into the ocean. The DEA shall discuss the project's mitigative measures to control polluted runoff before and after construction.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

RECEIVED
OCT 8 1998

AKINAKA & ASSOCIATES, LTD.

OCT - 7 1998

In Reply Refer To: LLLW

Mr. Henry Morita
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Re: The Vidinha Stadium Complex Expansion Project, Lihue, Kauai, Hawaii

Dear Mr. Morita:

The U.S. Fish and Wildlife Service (Service) has reviewed your September 24, 1998, letter seeking comments relative to the preparation of a Draft Environmental Assessment (EA) for the proposed expansion of Vidinha Stadium in Lihue, Kauai, Hawaii. The project sponsor is the Department of Public Works, County of Kauai. The project involves initial improvements that may include tennis courts, a swimming pool, and floodlighting for the existing baseball field. If funding is available, improvements may also include a gymnasium and additional parking. The Service offers the following comments for your consideration.

To the best of our knowledge no endangered, threatened, or candidate species, significant wetlands, or other Federal trust resources occur in the immediate project area. However, the Service recommends that the EA address potential impacts of the floodlighting and any other additional outdoor lighting on the federally listed endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*) and Newell's shearwater (*Puffinus newelli*) as well as the wedge-tailed shearwater (*Puffinus pacificus*), which is protected by the Migratory Bird Treaty Act. Although these species do not inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas can become disoriented by the lights and collide with man-made structures that can kill or injure them. Injured seabirds that "fall-out" from collisions are highly vulnerable to predation by dogs and cats. Therefore, the proposed new floodlighting could become an attractive nuisance for these seabirds.


The Service recommends that the following measures be undertaken to minimize project-related impacts to dark-rumped petrels, Newell's shearwaters, and wedge-tailed shearwaters:

1. Light poles should be limited to a height of 25 feet. Lights situated on higher poles are more likely to cause seabird fall-out than lights on lower poles.

2. All lights used in this project should be directed downward, be shaded to prevent light from escaping horizontally, and be as low-wattage as possible. It would be helpful if the lighting is of muted colors instead of a bright white.
3. Mr. Tom Telfer at the Hawaii Division of Forestry and Wildlife, 3060 Eiwa Street, Lihue, Kauai, Hawaii, 96766, should be contacted for other possible recommendations.

The Service appreciates the opportunity to comment. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Lorena Wada at 808/541-3441.

Sincerely,



Robert P. Smith
Pacific Islands Manager

cc: Michael Wilson, DLNR, Honolulu
Tom Telfer, DOFAW, Kauai



AKINAKA & ASSOCIATES, LTD.

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Robert P. Smith, Pacific Islands Manager
Fish and Wildlife Service
U.S. Department of the Interior
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Smith:

Thank you for your comment letter, dated October 7, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "The Service recommends that the following measures be undertaken to minimize project-related impacts to dark-rumped petrels, Newell's shearwaters, and wedge-tailed shearwaters:
 1. Light poles should be limited to a height of 25 feet. Lights situated on higher poles are more likely to cause seabird fall-out than lights on lower poles."
 2. All lights used in this project should be directed downward, be shaded to prevent light from escaping horizontally, and be as low-wattage as possible. It would be helpful if the lighting is of muted colors instead of a bright white.
 3. Mr. Tom Telfer at the Hawaii Division of Forestry and Wildlife, 3060 Eiwa Street, Lihue, Kauai, Hawaii, 96766 should be contacted for other possible recommendations."

RESPONSE: The proposed field lighting will be designed to conform with the Illumination Engineering Society of North America (IES) requirements for a semi-professional facility with 5,000 spectators or less. In order to provide adequate illumination for both the players and spectators, the minimum height for the light pole was determined to be 90 feet. The proposed field lights can be aimed to provide cutoff distribution for glare control.

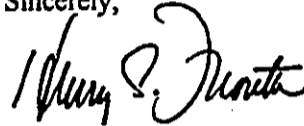
Page 2
Mr. Smith
March 5, 1999

Since the existing baseball field is located in the vicinity of the Lihue airport runway, the proposed field lights will be coordinated with the Federal Aviation Administration for compliance with applicable requirements.

A copy of the Draft EA will be sent to Mr. Tom Telfer for review and comment.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

MARYANNE W. KUSAKA
MAYOR



COUNTY OF KAUAI
PLANNING DEPARTMENT
4444 RICE STREET, SUITE 473
LIHUE, KAUAI, HAWAII 96766

DEE M. CROWELL
PLANNING DIRECTOR
IAN K. COSTA
DEPUTY PLANNING DIRECTOR
TELEPHONE (808) 241-6677
FAX (808) 241-6699

December 7, 1998

Henry S. Morita
Akinaka & Assoc., Ltd.
250 N. Beretania St., Suite 300
Honolulu, Hawaii 06817-4716

RECEIVED
DEC 9 1998
AKINAKA & ASSOC., LTD.

SUBJECT: Pre-Assessment Consultation
Vidinha Stadium Complex Expansion Project
TMK: 3-6-02: 16 & 18 at Lihue, Kauai

In the event you were not aware, the County is in the process of purchasing lands for the Kauai Bus baseyard and Police Station/OEC on the abutting property to the north. The State of Hawaii is also purchasing lands on the same property for a new Judiciary building.

The Police Station/OEC project is being handled by Douglas Haigh of the Building Division and the bus baseyard project is being handled by Virginia Kapali. These people should be contacted.

The County's main concern at this point is the coordination of all of these projects to ensure integration and circulation. This stadium expansion project is a key element in the integration and circulation planning. One of the major concerns which has surfaced is traffic circulation to integrate all of these projects which calls for a roadway or driveway through the stadium expansion area. This matter should be discussed with the Public Works Department, the Kauai Bus office, Police, Civil Defense, and Planning Department. A joint meeting would be preferable.

The integration aspect is important since each project has designated their own parking which creates an abundance of parking, much of which could be avoided if sharing could be feasible.

Should you have any questions, please feel free to contact Keith Nitta of my staff at 241-6677.

DEE M. CROWELL
Planning Director

CC: Public Works



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Ms. Dee M. Crowell, Director
Planning Department
County of Kauai
4444 Rice Street, Suite 473
Lihue, Kauai, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Ms. Crowell:

Thank you for your comment letter, dated December 7, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "In the event you were not aware, the County is in the process of purchasing lands for the Kauai bus baseyard and Police Station / OEC on the abutting property to the north. The State of Hawaii is also purchasing lands on the same property for a new Judiciary building. The Police Station/OEC project is being handled by Douglas Haigh of the Building Division and the bus baseyard project is being handled by Virginia Kapali. These people should be contacted."

RESPONSE: The proposed project will be coordinated with the appropriate agencies that are proposing future facilities in the vicinity of the stadium expansion. These agencies will be sent a copy of the draft EA upon completion for review and comment.

2. COMMENT: The County's main concern at this point is the coordination of all of these projects to ensure integration and circulation. This stadium expansion project is a key element in the integration and circulation planning. One of the major concerns which has surfaced is traffic circulation to integrate all of these projects which calls for a roadway or driveway through the stadium expansion area. This matter should be discussed with the Public Works Department, the Kauai Bus office, Police, Civil Defense, and Planning Department. A joint meeting would be preferable.

The integration aspect is important since each project has designated their own parking which creates an abundance of parking, much of which could be avoided if sharing could be feasible."

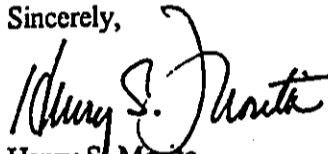
Page 2
Ms. Crowell
March 5, 1999

RESPONSE: A Traffic Impact Assessment Report (TIAR) is currently being prepared for the proposed Vidinha Stadium Complex Expansion project. The TIAR could serve as the basis for additional traffic studies for the overall master plan of the proposed Judiciary and police station facilities.

The proposed stadium expansion project will be coordinated with the Kauai Judiciary Complex, Kauai Police Station and the County Bus Facility projects to promote integration and to minimize unnecessary parking.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



BENJAMIN J. CAYETANO
GOVERNOR

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

LETTER NO. (P) 1669.8

OCT 19 1998

RECEIVED
OCT 20 1998

Mr. Henry Morita
Akinaka & Associates, Ltd.
Consulting Engineers
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

Subject: Vidinha Stadium Complex Expansion
Lihue, Kauai, Hawaii
TMK (4)3-6-02:16 & 18
Pre-Assessment Consultation

Thank you for the opportunity to comment on the proposed project. DAGS and Kauai County staff have been coordinating the design of the Kauai Judiciary Complex, Kauai Police Station, County Bus Facility, and the Vidinha Stadium Complex expansion site. As a result, the site plan attached to your September 24, 1998 letter needs to be substantially revised.

While no firm decisions have been reached, it is our understanding that the integration of all the adjacent facilities are a necessary part of the master site planning for the Judiciary and police station facilities. We further understand that the overall master site plan is being prepared by Urban Works, who is being retained by Kauai County and guided by Mr. Douglas Haig.

If there are any questions regarding the above matter, please call Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Sincerely,

GORDON MATSUOKA
Public Works Administrator

RY:jj

c: Mr. Cesar Portugal, Kauai County Engineer
Mr. Stanley Doi, DAGS District Engineer
Mr. Douglas Haig, Kauai County DPW
Mr. Jerry Nishida, PMB
Mr. Keith Nitta, Kauai Planning Dep.



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MICHAEL M. MIYAHIRA, L.P.E.
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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Gordon Matsuoka
Public Works Administrator
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Matsuoka:

Thank you for your comment letter, dated October 19, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "DAGS and Kauai county staff have been coordinating the design of the Kauai Judiciary Complex, Kauai Police Station, County Bus Facility, and the Vidinha Stadium Complex expansion site. As a result, the site plan attached to your September 24, 1998 letter needs to be substantially revised."

RESPONSE: Updating the site plan will be coordinated with the appropriate agencies that are proposing future facilities in the vicinity of the stadium expansion. The draft environmental assessment will reflect this revised site plan.

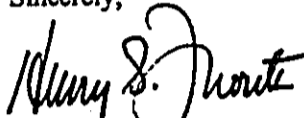
2. COMMENT: "While no firm decisions have been reached, it is our understanding that the integration of all the adjacent facilities are a necessary part of the master site planning for the Judiciary and police station facilities. We further understand that the overall master site plan is being prepared by Urban Works, who is being retained by Kauai County and guided by Mr. Douglas Haig."

RESPONSE: The proposed stadium expansion will be coordinated with the proposed Kauai Judiciary Complex, Kauai Police Station and the County Bus Facility projects to be constructed nearby. The proposed stadium expansion and the overall master plan for the proposed Judiciary and police station facilities are under the direction of the County of Kauai's Department of Public Works.

Page 2
Mr. Matsuoka
March 5, 1999

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

October 15, 1998

Henry Morita
Akinaka and Assoc.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

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OCT 21 1998

AKINAKA & ASSOCIATES, LTD.

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
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CONVEYANCES

FORESTRY AND WILDLIFE
HISTORIC PRESERVATION

DIVISION

LAND DIVISION

STATE PARKS

WATER AND LAND DEVELOPMENT

LOG NO: 22331 ✓
DOC NO: 9810NM01

Dear Mr. Morita:

SUBJECT: **Historic Preservation Review -- Pre-Assessment Consultation for Vidinha Stadium Complex Expansion Project (County of Kauai)**
TMK: 3-6-02: 16 & 18
Lihue, Kauai

Thank you for the opportunity to comment on this application. We do not believe that there are any significant historic sites in this area, since the area has already been used for agricultural uses. It is highly unlikely that significant historic sites still exist. Therefore, we believe that this project will have "no effect" on significant historic sites.

If you have any questions, please call Nancy McMahon at 742-7033.

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

Don Hibbard, Administrator
State Historic Preservation Division

NM:jk



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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room #555
Kapolei, Hawaii 96707

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Hibbard:

Thank you for your comment letter dated October 15, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that SHPD anticipates the proposed project to have "no effect" on significant historic sites since the area has previously been disturbed and used for agricultural purposes.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



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

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

October 5, 1998

LD-NAV

REF.: AKINAKA.2RC

Mr. Henry S. Morita, P.E.
 Executive Vice President
 Akinaka & Associates, Ltd.
 250 North Beretania Street, Suite 300
 Honolulu, Hawaii 96717-4716

RECEIVED
 OCT 7 1998

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

SUBJECT: Pre-Assessment Consultation for the Vidinha Stadium Complex Expansion Project Lihue, Kauai, Hawaii

We have received your letter dated September 24, 1998, informing us of the proposed project and requesting our Department's review and comments prior to the preparation of a Draft Environmental Assessment.

In general the Department's review of proposed projects is to comment on issues affecting the following resources:

- | | |
|-------------------------|-------------------------|
| - Water Resources | - Historic |
| - Wildlife and Forestry | - Shoreline |
| - Aquatic Resources | - Natural Area Reserves |
| - Conservation Land | - Ocean Recreation |
| - State Owned Land | - Beaches |
| - State Interest | - Eco System |
| - Streams | - Ocean |

In order for this Department to provide better service to you and your client, please provide to us information relevant to the above.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division at 1-808-587-0438.

Very truly yours,

DEAN Y. UCHIDA
 Administrator

c: Kauai Land Board Member
 Kauai District Land Office



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

ROBERT Y. AKINAKA, L.P.E.
HENRY S. MORITA, L.P.E.
SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURAKAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Dean Uchida, Administrator
Land Division
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Uchida:

Thank you for your comment letter, dated October 5, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "In general the Department's review of proposed projects is to comment on issues affecting the following resources:


- | | |
|-------------------------|-------------------------|
| - Water Resources | - Historic |
| - Wildlife and Forestry | - Shoreline |
| - Aquatic Resources | - Natural Area Reserves |
| - Conservation Land | - Ocean Recreation |
| - State Owned Land | - Beaches |
| - State Interest | - Eco System |
| - Streams | - Ocean |

In order for this Department to provide better service to you and your client, please provide to us information relevant to the above."

RESPONSE: The draft EA shall discuss the appropriate resource issues relating to the proposed project.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

KALI WATSON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

October 2, 1998

RECEIVED
OCT 6 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

Dear Mr. Morita:

Subject: Pre-Assessment Consultation for the Vidinah Stadium
Complex Expansion Project, TMK 3-6-2:16 & 18,
Lihue, Kauai, Dated September, 1998

Thank you for the opportunity to review the subject document.
The Department of Hawaiian Home Lands has no comment to offer.

If you have any questions, please call Daniel Ornellas at
586-3837.

Aloha,

fn
Daniel Ornellas
KALI WATSON, Chairman
Hawaiian Homes Commission



AKINAKA & ASSOCIATES, LTD.
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250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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SHELDON T. YANASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Raymond Soon, Chairman
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, Hawaii 96805

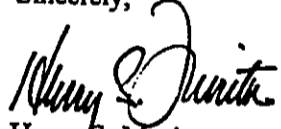
RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Soon:

Thank you for your letter dated October 2, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that you have no comments to offer at this time.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



United States
Department of
Agriculture
Natural
Resources
Conservation
Service

P.O. Box 50004
Honolulu, HI
96850

Our People...Our Islands...In Harmony

October 28, 1998

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

RECEIVED
OCT 30 1998

AKINAKA & ASSOCIATES, LTD.


Dear Mr Morita:

Subject: Pre-Assessment Consultation for the Vidinha Stadium Complex Expansion
Project, Lihue, Kauai, Hawaii

We have reviewed the above mentioned document and have no comments to offer at
this time.

Thank you for the opportunity to review this document.

Sincerely,


KENNETH M. KANESHIRO
State Conservationist

The Natural Resources Conservation Service works hand-in-hand with
the American people to conserve natural resources on private lands.

AN EQUAL OPPORTUNITY EMPLOYER



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MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. CANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Kenneth M. Kaneshiro
State Conservationist
Natural Resource Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Kaneshiro:

Thank you for your letter dated October 28, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that you have no comments to offer at this time.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR



KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAII
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KAUAI DISTRICT
3060 EIWA STREET, ROOM 205
LIHUE, HAWAII 96766

IN REPLY REFER TO:

HWY-KE 4.980997

RECEIVED
OCT 6 1998

October 2, 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry Morita
Akinaka & Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

**Subject: Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project
Lihue, Kauai, Hawaii
TMK: (4)3-6-02:16 & 18**

Review of the General Layout for the proposed project has been completed and we have the following comments:

1. Other than the current access permitted openings, no new access openings shall be permitted to the complex site from Kapule Highway.
2. No storm runoff from the site shall be directed onto the Kapule Highway R/W. All site runoff shall be handled by internal drainage systems outletting into existing or new closed systems. Site drainage report shall be prepared and submitted to the State Highways Division for review
3. Appropriate landscaping within the County parcel, should be provided along the entire frontage to Kapule Highway.
4. No parking will be allowed within the Kapule Highway R/W.

Mr. Henry Akinaka
Page 2
October 2, 1998

HWY-KE 4.980997

5. A Traffic Impact Assessment Report (TIAR) shall be prepared and submitted to the Highways Division for review. The TIAR shall address traffic impacts on Kapule Highway due to the expansion of the sports complex facilities. At the existing access road to the stadium complex, we recommend that left turn storage lanes & acceleration/deceleration lanes be constructed on Kapule Highway.
6. Street lights shall be provided at the Kapule Highway/stadium access road intersection.
7. Draft EA shall be submitted to the State Highways Division for review/comments.
8. This office reserves the right to impose additional conditions upon review of the Draft EA.

Thank you for giving us the opportunity to review and comment on the preliminary proposal for the County of Kauai Sports Complex expansion. If you have any questions, please call Steve Morikawa at 274-3118.

Sincerely,



STEVEN KYONO, P.E.
District Engineer

SM:es

10 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



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SHELDON T. YAMASATO, L.P.E.
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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Steven Kyono, District Engineer
Kauai District
Highways Division
State Department of Transportation
3060 Eiwa Street, Room 205
Lihue, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Kyono:

Thank you for your comment letter, dated October 2, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "Other than the current access permitted openings, no new access openings shall be permitted to the complex site from Kapule Highway."

RESPONSE: No new access openings from Kapule Highway are planned for the proposed stadium complex expansion. The proposed expansion area will be accessed via the existing Vidinha Stadium Access Road which is located between Kapule Highway and Hooloko Street, on the southern side of the project site. Improvements to the Vidinha Stadium Access Road and Kapule Highway intersection are proposed in the project's traffic impact assessment report.

2. COMMENT: "No storm runoff from the site shall be directed onto the Kapule Highway R/W. All site runoff shall be handled by internal drainage systems outletting into existing or new closed systems. Site drainage report shall be prepared and submitted to the State Highways Division for review."

RESPONSE: The disposal of stormwater runoff to be generated from the proposed project site will be determined in the project's drainage report. No surface runoff from the project site will be directed to the Kapule Highway right-of-way. Should discharge into the State's storm drain system be required, the appropriate connection and discharge permits will be obtained from the respective State agency. Best management practices to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters shall be addressed in the Draft EA.

3. COMMENT: "Appropriate landscaping within the County parcel, should be provided along the entire frontage to Kapule Highway."

RESPONSE: Landscaping will be limited to the proposed stadium expansion area. Existing oleander planting will remain along the baseball and football fields.
4. COMMENT: "No parking will be allowed within the Kapule Highway R/W."

RESPONSE: Parking stalls are not planned within the Kapule Highway right-of-way.
5. COMMENT: "A Traffic Impact Assessment Report (TIAR) shall be prepared and submitted to the Highways Division for review. The TIAR shall address traffic impacts on Kapule Highway due to the expansion of the sports complex facilities. At the existing access road to the stadium complex, we recommend that left turn storage lanes & acceleration/deceleration lanes be constructed on Kapule Highway."

RESPONSE: A Traffic Impact Assessment Report for the proposed project is being prepared by the Traffic Management Consultant. Upon completion, a copy of the TIAR will be submitted to the Highways Division for review.
6. COMMENT: "Street lights shall be provided at the Kapule Highway/stadium access road intersection."

RESPONSE: Street lights to illuminate the intersection will be provided.
7. COMMENT: "Draft EA shall be submitted to the State Highways Division for review/comments."

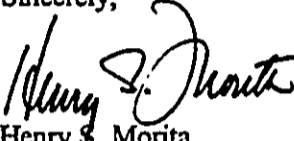
RESPONSE: Upon completion, a copy of the Draft EA shall be sent to the State Highways Division for review. The Division is welcome to submit any comments during the 30-day comment period which commences once the Draft EA is published in the Office of Environmental Quality Control's bulletin.
8. COMMENT: "This office reserves the right to impose additional conditions upon review of the Draft EA."

RESPONSE: We acknowledge that the State Department of Transportation-Highways Division may impose additional conditions to the proposed project as more detailed information becomes available and the Draft EA is reviewed.

Page 3
Mr. Kyono
March 5, 1999

Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

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NOV 13 1998

AKINAKA & ASSOCIATES, LTD.

November 4, 1998

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka & Associates, Ltd.
250 North Beretania Street, Ste. 300
Honolulu, HI 96817-4716

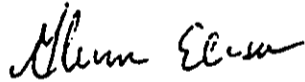
Re: Vidinha Stadium Complex

Dear Mr. Morita:

In response to your letter of September 24, 1988, our Board of Directors reviewed your project and are in support of the expansion of the stadium complex. We have some concern over parking as currently when there is a large gathering at the stadium the overflow parking covers the entire area where the current soccer field is located. Some provision for additional parking will need to be addressed.

Please keep us advised as to the progress of the project.

Sincerely,



Glen Ebesu
President
Lihue Industrial Park II Association



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Civil Engineering • Land Planning

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ROBERT Y. AKINAKA, L.P.E.
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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Mr. Glen Ebesu, President
Lihue Industrial Park II Association
c/o P.O. Box 22
Hanapepe, Hawaii 96716

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Ebesu:

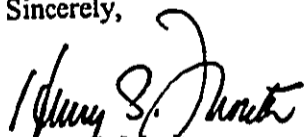
Thank you for your comment letter, dated November 4, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

COMMENT: "We have some concern over parking as currently when there is a large gathering at the stadium the overflow parking covers the entire area where the current soccer field is located. Some provision for additional parking will need to be addressed."

RESPONSE: The proposed project includes provisions for an additional parking facility where the existing soccer field is located. Parking areas constructed with other government facilities adjacent to the sports complex could be used for overflow parking. A masterplan which involves the coordination of these parking areas is currently under development by the County of Kauai's Department of Public Works.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAII
GLENN M. OKIMOTO

IN REPLY REFER TO:

STP 8.8847

October 2, 1998

RECEIVED
OCT 6 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Dear Mr. Morita:

Subject: Vidinha Stadium Complex Expansion Project
Pre-Assessment Consultation
TMK: (4) 3-6-02-16 & 18
Lihue, Kauai

Thank you for your letter of September 24, 1998 requesting our comments on the subject project.

A traffic assessment should be prepared for our review which reflects the full build out of the stadium complex as well as other planned major developments in the area, including Amfac's Lihue-Hanamaulu Master Planned community. This traffic assessment should identify the impacts and mitigation measures the project will have on the State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

ROBERT Y. AKINAKA, L.P.E.
HENRY S. MORITA, L.P.E.
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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Hayashida:

Thank you for your comment letter, dated October 2, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "A traffic assessment should be prepared for our review which reflects the full build out of the stadium complex as well as other planned major developments in the area, including Amfac's Lihue-Hanamaulu Master Planned community. This traffic assessment should identify the impacts and mitigation measures the project will have on the State transportation facilities."

RESPONSE: A Traffic Impact Assessment Report for the proposed project is being prepared by the Traffic Management Consultant. The TIAR will incorporate the future traffic impacts from the proposed stadium expansion as well as anticipated impacts from the Lihue-Hanamaulu Master Planned community. Upon completion, a copy of the TIAR will be submitted to the Highways Division for review. A master plan for traffic circulation and parking area coordination is currently under development by the County of Kauai.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

DEPARTMENT OF WATER

County of Kauai

"Water has no Substitute -- Conserve It!"

October 22, 1998

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OCT 24 1998

Mr. Henry Morita
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

RE: Vidinha Stadium Complex Expansion Project, TMK:3-6-02:16 &18, Lihue, Kauai

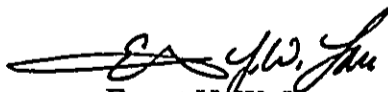
In response to your letter of September 24, 1998, we offer the following. Any actual subdivision or development will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the source facilities are operating at capacity. Development will be limited to the equivalent water use of three (3) dwelling units per lot until adequate source facilities are provided.

Prior to building permit or water meter approval, the applicant shall:

1. Submit for review and approval water demand calculations for the project. The Department will determine if the existing facilities at that time are adequate for the proposed use.
2. Prepare and receive Department of Water's approval of construction drawings for necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:
 - a. The domestic service connections
 - b. The interior plumbing plans with the appropriate backflow preventer.
3. Pay the applicable charges in effect at the time of payment to the Department of Water. These charges will be determined by the approved construction drawings.
4. Receive a "Certification of Completion" from the Department of Water for the completion of the necessary water system facilities.

If you have any questions to this information, please call Keith Aoki at 245-5418.

Sincerely,



Ernest Y. W. Lau
Manager & Chief Engineer
KA\akinaka1.doc



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CONSULTING ENGINEERS
Civil Engineering • Land Planning

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ROBERT Y. AKINAKA, L.P.E.
HENRY S. MORITA, L.P.E.
SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Mr. Ernest Y. W. Lau
Manager and Chief Engineer
Department of Water
County of Kauai
4398 Pua Loke Street
Lihue, Kauai, Hawaii 96766-5706

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Lau:

Thank you for your comment letter, dated October 22, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "Any actual subdivision or development will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the source facilities are operating at capacity. Development will be limited to the equivalent water use of three (3) dwelling units per lot until adequate source facilities are provided."

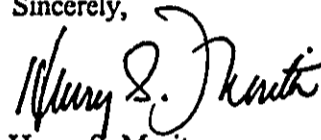
RESPONSE: The water use requirements for the proposed project is anticipated to exceed the available system capacity. Thus, the water use requirements for the proposed project will be coordinated with the Department of Water.
2. COMMENT: "Prior to building permit or water meter approval, the applicant shall:
1. Submit for review and approval water demand calculations for the project. The Department will determine if the existing facilities at that time are adequate for the proposed use.
2. Prepare and receive Department of Water's approval of construction drawings for necessary water system facilities and construct said facilities. These facilities shall include but not be limited to: a. The domestic service connections b. The interior plumbing plans with the appropriate backflow preventer.
3. Pay the applicable charges in effect at the time of payment to the Department of Water. These charges will be determined by the approved construction drawings.
4. Receive a 'Certification of Completion' from the Department of Water for the completion of the necessary water system facilities."

Page 2
Mr. Lau
March 5, 1999

RESPONSE: Upon completion, water demand calculations, and construction drawings for the proposed project will be submitted to the Department of Water for review and approval. Applicable charges will be paid at the proper time and a "Certification of Completion" will be secured from the Department of Water.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



Amfac Land Company, Limited • Kauai Division

2970 Kele Street • Lihue, Kauai, Hawaii 96766

RECEIVED
JAN 20 1999

AKINAKA & ASSOCIATES, LTD.

January 18, 1999

Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

Attn.: Henry Morita

Re: Pre-Assessment Consultation for Vidinha Stadium Complex Expansion Project

Dear Mr. Morita:

This is an overdue response to your letter dated September 24, 1998 regarding the above project. We have concerns regarding the compatibility of this use with our abutting agricultural operations. Our agricultural activities on the abutting parcel involve spraying and aerial applications of various chemicals, as well as the generation of dust during harvesting and plowing which could be a problems for this swimming pool. Weed control along the boundaries may be a problem as well as rodent control. We would recommend that the design provide for as much buffer area as possible.

Also, aside from our own interests, it seems that it would be prudent to integrate access to this area with access to the proposed Police/EOC facility on the adjacent land for flexibility of use and parking.

Please provide us with a copy of the environmental assessment when it is complete so we can review further. I can be reached at (808) 245-7687 if you need anything further.

Very truly yours,
AMFAC LAND COMPANY, LTD.,
Agent for AMFAC SUGAR KAUAI

Dorothy R. Bekeart
Land Manager

Telephone: 808-245-8786 • Facsimile: 808-246-9549



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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HENRY S. MORITA, L.P.E.
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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Ms. Dorothy R. Bekeart, Land Manager
Amfac Land Company, Limited - Kauai Division
2970 Kele Street
Lihue, Kauai, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Ms. Bekeart:

Thank you for your comment letter, dated January 18, 1999, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "We have concerns regarding the compatibility of this use with our abutting agricultural operations. Our agricultural activities on the abutting parcel involve spraying and aerial applications of various chemicals, as well as the generation of dust during harvesting and plowing which could be a problem for this swimming pool. Weed control along the boundaries may be a problem as well as rodent control. We would recommend that the design provide for as much buffer area as possible."

RESPONSE: The anticipated impacts to the proposed stadium expansion from adjacent agricultural activities should not be greater than those already experienced by the existing stadium facilities. Some buffer area will be provided by the future government and quasi-government facilities to the north of the project site. In addition, the adjacent agricultural area will be greatly reduced upon completion of the Molokoa Subdivision Expansion.

2. COMMENT: "Also, aside from our own interests, it seems that it would be prudent to integrate access to this area with access to the proposed Police/EOC facility on the adjacent land for flexibility of use and parking."

Page 2
Ms. Dorothy Bekeart
March 5, 1999

RESPONSE: The future facilities in the area of the Vidinha Stadium Complex Expansion site include the proposed Kauai Judiciary Complex, Kauai Police/EOC Facility and the Kauai bus baseyard. The entire area, including the proposed stadium expansion project and the existing Veteran's Center are currently being coordinated with the appropriate agencies representing these future facilities to promote integration of parking and traffic circulation.

Per your request, a copy of the Draft EA will be sent to you upon completion. You are welcome to submit any comments during the 30-day review period which commences when the Draft EA is published in the Office of Environmental Quality Control's bulletin. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

APPENDIX D

MARYANNE W. KUSAKA
MAYOR



PLANNING DEPARTMENT

DEE M. CROWELL
PLANNING DIRECTOR
SHELLAH N. MIYAKE
DEPUTY PLANNING DIRECTOR
TELEPHONE (808) 241-6677
FAX (808) 241-6699

March 24, 2000

RECEIVED
APR 6 2000

AKINAKA & ASSOCIATES, LTD.

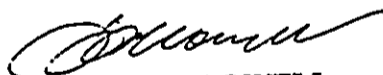
Wallace Kudo
Department of Public Works
4444 Rice Street
Lihue, Kauai HI 96766

SUBJECT: Draft Environmental Assessment for the Vidinha Stadium Expansion at Lihue, Kauai (TMK: 3-6-02: 16 and 18)

The State Land Use District (SLUD) boundary for the subject property is Agricultural and the zoning is Agriculture District (A). The Land Classification for the property is "B." Therefore, the proposed project will require a Special Permit, a Use Permit, and a Class IV Zoning Permit from the Planning Commission. There is a possibility at this point that a Variance Permit may be required to address the lot coverage of the project. We will have to discuss this matter with your office. Please contact us to arrange a meeting involving permitting for the project.

As stated in our December 7, 1998 correspondence, our concern is that this project integrate with other projects in the area in terms of traffic circulation and parking. We realize that plans for the project are nearing completion, nevertheless, provisions should be made to allow for modifications in the future that will improve traffic circulation and integration of parking.

Thank you for allowing us this opportunity to comment and should you have any questions, please feel free to contact Keith Nitta of my staff at 241-6677.


DEE M. CROWELL
Planning Director

CC: Henry Morita



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CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

FILE COPY

August 3, 2000

Mr. Dee Crowell, Director
Department of Planning
County of Kauai
4444 Rice Street, Suite 473
Building "A"
Lihue, Hawaii 96766

Attention: Mr. Keith Nitta (241-6677)

PROJECT: VIDINHA STADIUM COMPLEX EXPANSION
KAUAI DEPARTMENT OF PUBLIC WORKS
LIHUE, KAUAI, HI. (TMK: 3-6-02:16 7 18)

Subject: Draft Environmental Assessment

Reference: Planning Department letter dated March 24, 2000

In response to the reference, we provide the following:

1. **Comment:** The State Land Use District (SLUD) boundary for the subject property is Agricultural and the zoning is Agriculture District (A). The Land Classification for the property is "B". Therefore, the proposed project will require a Special Permit, a Use Permit, and a Class IV Zoning Permit from the Planning Commission.

Response: Permit applications will be submitted to the Planning Commission when the design concepts are established. The final EA will include these permits as project requirements.

2. **Comment:** There is a possibility at this point that a Variance Permit may be required to address the lot coverage of the project. We will have to discuss this matter with your office. Please contact us to arrange a meeting involving permitting for the project.

Response: The Department of Public Works will request a meeting to discuss this matter.

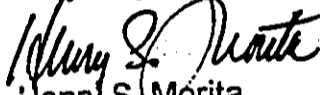
Mr. Dee Crowell
August 3, 2000
Page 2

3. **Comment:** As stated in our December 7, 1998 correspondence, our concern is that this project integrate with other projects in the area in terms of traffic circulation and parking. We realize that plans for the project are nearing completion, nevertheless, provisions should be made to allow for modifications in the future that will improve traffic circulation and integration of parking.

Response: Traffic circulation and parking integration have been subjects of coordination meetings between project managers of the various projects in the area. The final plans will reflect the results of these meetings.

Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Very truly yours,



Henry S. Morita
Executive Vice President

cc: Mr. Wallace Kudo, KDPW
HSM:cyk
PDK0024L.WPF

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 588-4186
FACSIMILE (808) 588-4186

March 24, 2000

Cesar Portugal
Kauai Department of Public Works
4444 Rice Street
Lihue HI 96766

Attn: Wally Kudo

Subject: Vidinha Stadium Complex Expansion, Lihue

Dear Mr. Portugal:

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.
2. Bird strikes: The October 7, 1998 letter from the US Fish & Wildlife Service recommends poles heights not exceeding 25 feet in order to reduce the likelihood of bird strikes. The draft EA, however, notes that light poles will be 90 feet high to provide adequate illumination. Include the Service in your draft EA distribution so that additional consultation can be made on this issue.
3. Exhibit 2: The scale for this exhibit ("1 = 1") need to have the units of measurement included. Please make this correction in the final EA.
4. Swimming pool: Consult the Sanitation Branch of the Department of Health for an approval to construct and a permit to operate a swimming pool. Include this in your list of permits in the final EA.
5. Timeframe: What are the anticipated start and end dates of this project?
6. Community contacts: In the final EA list the dates of any public informational meetings and the issues that were raised.

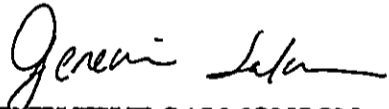
Cesar Portugal
March 24, 2000
Page 2

7. Runoff: This property was formerly used for agriculture. For this project the surface will change from soil to an impervious surface. The adjacent parcels are slated for development as the Judiciary and the Police Station, along with their respective parking lots, all to have impervious surfaces. How will runoff in this area be affected by this increase in hard surfaces? The draft EA mentions discussion of this issue in the "Facilities Planning Report." In the final EA include a thorough analysis of runoff and any related mitigation measures. You may use the text from the Report if it includes these items.

8. Traffic: We question the conclusion of negligible impact from the complex's increased traffic. The traffic projection in the Traffic Impact Analysis Report (TIAR) in the draft EA is based on an assumption of a 3% population growth rate. Additionally the TIAR is now 6 years old. Recent data for the past decade from the Department of Business, Economic Development and Tourism show an 11.8% population increase for the island and a nearly 18% increase for Lihue District. In the final EA include an updated traffic analysis and impacts projection and what mitigation measures you propose to minimize these impacts.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,



GENEVIEVE SALMONSON
Director

c: Henry Morita, Akinaka & Assoc.



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

FILE COPY

August 3, 2000

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 So. Beretania St., Room 702
Honolulu, Hawaii 96813

Attention: Nancy Heinrich (586-4185)

Project: Vidinha Stadium Complex Expansion
Kauai Department of Public Works
Lihue, Kauai, HI. (TMK: 3-6-02: 16 & 18)

Subject: Draft Environmental Assessment

Reference: OEQC letter dated March 24, 2000

In response to comments contained in the reference, we offer the following response:

1. Comment: Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

Response: We will consider printing on both sides of the page in the final document.

2. Comment: Bird strikes: The October 7, 1998 letter from the US Fish & Wildlife Service recommends poles heights not exceeding 25 feet in order to reduce the likelihood of bird strikes. The draft EA, however, notes that light poles will be 90 feet high to provide adequate illumination. Include the Service in your draft EA distribution so that additional consultation can be made on this issue.

Response: Further consultation with the US Fish & Wildlife (Gordon Smith @ 541-3441) resulted in no additional comments. It should be noted that the new baseball field lights are lower than the adjacent football field lights.

3. **Comment:** Exhibit 2: The scale for this exhibit ("1 = 1") need to have the units measurement included. Please make this correction in the final EA.

Response: Scale for this exhibit is shown adjacent to the north arrow.

4. **Comment:** Swimming pool: Consult the Sanitation Branch of the Department of Health for an approval to construct and a permit to operate a swimming pool. Include this in your list of permits in the final EA.

Response: HAR Title 11, Chapter 13A, "Public Swimming Pools" requires that plans for public swimming pools must be authorized by the Director of Health. A permit to operate a public swimming pool must be obtained from the Department Health. These requirements will be added to the final Ea list of permits. The County of Kauai operates several public swimming pools and is very familiar with the Health Department Regulations.

5. **Comment:** Timeframe: What are the anticipated start and end dates of this project?

Response: The project will be implemented in several phases. It is expected that the baseball field lighting will be the initial phase followed by the tennis courts, swimming pool then gymnasium. Anticipated start could be in the spring of 2001 with the end date dependent on availability of funds.

6. **Comment:** Community contacts: In the final EA list the dates of any public informational meetings and the issues that were raised.

Response: The first public informational meeting was held on June 29, 1994 at the Kauai War Memorial Hall in Lihue. This meeting was general in nature to elicit community desires. Repair and upgrading of existing facilities were requested to be the initial priority. Temporary use of the expansion area for soccer was requested to continue.

The second public informational meeting was held on November 30, 1995 at the Lihue Neighborhood Center. Dual use of the tennis courts for roller blading was expressed.

Ms. Genevieve Salmonson
August 3, 2000
Page 3

Other items discussed at both informational meetings will be included in the final EA.

7. **Comment:** Runoff: This property was formerly used for agriculture. For this project the surface will change from soil to an impervious surface. The adjacent parcels are slated for development as the Judiciary and the Police Station, along with their respective parking lots, all to have impervious surfaces. How will runoff in this area be affected by this increase in hard surfaces? The draft EA mentions discussion of this issue in the "Facilities Planning Report." In the final EA include a thorough analysis of runoff and any related mitigation measures. You may use the text from the Report if it includes these items.

Response: The Environmental assessment is for the Vidinha Stadium Expansion. We believe that separate EA have been submitted by the County and the State for the Police and Judiciary complex. Please refer to the EA's developed for each project. Insofar as the Vidinha Stadium Expansion the project develops 10 acres in a drainage area that is approximately 200 acres in size. There would be a very nominal increase in storm flowages. Best management practice of draining storm water through natural swales and water courses and its long travel path will help reduce pollutants."

8. **Comment:** Traffic: We question the conclusion of negligible impact from the complex's increased traffic. The traffic projection in the Traffic Impact Analysis Report (TIAR) in the draft EA is based on an assumption of a 3% population growth rate. Additionally the TIAR is now 6 years old. Recent data for the past decade from the Department of Business, Economic Development and Tourism show an 11.8% population increase for the island and a nearly 18% increase for Lihue District. In the final EA include an updated traffic analysis and impacts projection and what mitigation measures you propose to minimize these impacts.

Response: Mitigation measures such as signalization of intersections will be implemented as required. The Halau Street and Kapule Highway intersection have recently been Signalized. Traffic from the project would access Kapule Highway through Halau Street. Future plans could also include signalizing the stadium driveway and Kapule Highway.



University of Hawai'i at Mānoa

Environmental Center
A Unit of Water Resources Research Center
2550 Campus Road • Crawford 917 • Honolulu, Hawai'i 96822
Telephone: (808) 956-7381 • Facsimile: (808) 956-3980

April 26, 2000
EA: 00206

Mr. Wally Kudo
County of Kaua'i
Department of Public Works
4444 Rice Street
Lihue Hawaii 96766

Dear Mr. Kudo:

Draft Environmental Assessment
Vidinha Stadium Complex Expansion
Lihue, Kaua'i

The project involves the development of a vacant 10-acre parcel adjacent to the existing Vidinha Stadium facility. County of Kauai Department of Public Works development plans include a swimming pool, tennis courts, and field lighting for the existing baseball field. A gymnasium complex and parking are also planned, providing funding is available.

This review was conducted with the assistance of Marshall Mock, Physical Sciences, Kauai Community College (CC); Tracy Tucker, Computer Specialist, Kauai CC; Don Heacock, Department of Land and Natural Resources, and Sherri Hiraoka, Environmental Center.

General Comments

Expansion and upgrading recreational facilities will benefit many on Kaua'i that may not have access to swimming pools and tennis courts, etc. The improvements planned for the Vidinha Stadium seem in keeping with the use of the area and have the support of the community. We commend the county for seeking the participation of the community in committing to such an ambitious expansion of recreational facilities. Though our reviewers felt the project has many positive aspects, there were many issues that need to be discussed in greater detail in the environmental assessment (EA). In our review of the Draft EA, we cite these areas.

Mr. Kudo
April 26, 2000
Page 2

Proposed Improvements

We are not clear on the intent and purpose of the project. Is the ultimate goal of this proposal to expand the scope of recreational activities available at this site? Is it to provide facilities accessible to those from the Lihu'e area or from the entire island? Is it to provide Kaua'i with upgraded facilities so it might attract more statewide, national and international competitions? What is the projected volume of people and events to be serviced? Information should be provided with this type of data to justify the need for this project.

We would also like to know the projected construction timeline for the various project phases listed on page II-2. Are there any projected numbers of users for each facility at any given time?

Parking Facilities

There are several issues that need clarification in the section on Parking Facilities. The discussions on page II-3 states that "The baseball field would still be available for overflow parking for 355 vehicles." How often is this overflow parking needed presently, and how full does it get?

"It is assumed that only one of the facilities will be fully occupied at any given time," thus accommodating the demand for parking. What prevents the county from scheduling two events simultaneously? Is there, for example, the possibility of scheduling a baseball game and an activity in the gym at the same time? How will parking be handled in this situation?

While the complex facilities may not be fully occupied at one time, the combination of several events occurring simultaneously may exceed the 1141 stalls. Additional thought should be given to the parking situation to prevent parking in undesirable areas such as along busy roads, near intersections, or in private lots or driveways. This is especially true if the circumstance arises that funding for the additional parking lot is not available.

Cost Estimates

The estimated operational cost is listed on page II-4 as approximately \$370,000. Do these cost estimates include debt servicing? The DEA subsequently states on page V-5 that "revenue generated at the events should support the projects annual operating cost." There are however, no estimates on potential usage, making it difficult to judge whether revenue will be able to support the operational costs. How much revenue does the facility bring in at present? Is it enough to cover present expenses? We hope that a discussion of operational expenses in the Final EA would cite current revenue statistics, usage figures, and estimated usage and revenue figures once the addition is built.

Mr. Kudo
April 26, 2000
Page 3

Cost Estimates (continued)

We would like to know if alternate sources of funding have been considered for infrastructure development. Regardless of land size and use allocation, if infrastructure is to be developed, initial development cost and subsequent maintenance cost might be covered through donor fund sources. Other facilities have been developed with contributions from the private sector. The Punahou School athletic facility (gymnasium and/or covered swimming pool complex), for example, was funded by this means. Financial need does not seem to be a criterion for participation in this type of arrangement with this donor foundation. Could this be a viable source of funds for development of the gymnasium and/or swimming pool complex of this project?

Flood Hazard

This section on page III-3 neglects to mention how the proposed Center will increase storm water runoff, particularly considering the cumulative impacts of adjacent developments, and how the overall increase in urban storm water runoff will effect flooding in downstream/downslope areas

Potential flood conditions are addressed by the inclusion of "local drainage improvements." What are the improvements? Also, what is the condition of the current drainage system on the property?

Utilities

What does the term "domestic flow" mean as it is used on page III-3 to describe utilities? This section states that this "domestic flow is adequate based on scheduling only one major event at either the football stadium or the gymnasium." How will simultaneous scheduling of events at these facilities effect the ability of the utilities to handle domestic flow?

This complex could benefit from efficiency planning, including building designs that maximize natural lighting and ventilation, and energy efficient lighting which may be linked to timers to ensure that lights are not on during times of facility inactivity.

Land Use

The conversion of the soccer field into a parking lot also draws concern over the loss of a reconfigurable, open green space that benefited a variety of users with a venue for different activities. This field is currently used for open field games such as soccer, running, walking, playing Frisbee, kite flying, and other outdoor activities. If this reconfigurable open space is to be completely eliminated, is there any provision for replacing it? Are there vacant lots near the project site that can be used to maintain open green space for these types of activities?

Mr. Kudo
April 26, 2000
Page 4

Land Use (continued)

Any project should consider that reconfigurability may be reduced, infrastructure development costs may be significant, and that maintenance costs may increase significantly. In circumstances such as this one where a change in land use is decided, it may be beneficial to consider retaining a large reconfigurable component and to ensure that areas that lose this type of reconfigurability still retain the opportunity to serve a large number of people per unit time, such as in the case of the gymnasium. Another consideration is to adopt changes in phases to minimize the immediate impact on total reconfigurable areas, and to phase in the cost of the initial infrastructure development and periodic maintenance.

Tourism is the number one industry for the state, and for every county of the state. Kauai is the only county whose most significant recreational facility is one of the first significant structures that a visiting tourist may see. At present, that facility, while appreciated, is not something that necessarily captures the eye of the arriving tourist. If the land adjacent to the current sports complex and proposed judicial and police complexes were acquired and dedicated to sports or more generally, community use, Kauai could maximize that "first impression" on every arriving tourist.

If there is a decision to expand the amount of land involved in this community project, then it may be wise to locate the gymnasium, swimming pool complex, tennis courts, parking and possibly other components on the newly acquired land fronting the highway and North of the existing and proposed project areas. This would allow for continuous uninterrupted use of existing recreational areas during construction of new facilities.

Other Projects in the Area

Our reviewers were concerned with the lack of discussion on the cumulative impacts of development in the project site. In addition to the proposed stadium expansion, the Draft EA indicates on page III-5 that there are also several other projects including a police station, a bus facility, and a judiciary complex. What are the expected traffic, and utility impacts from these developments?

One significant deficiency in the Draft EA was the cumulative impact of increased urban-induced stormwater runoff that will result from the expansion of the stadium and from future and existing projects in the area. No mention is made of how much impermeable surface will be created, how much this change will increase stormwater runoff, and nonpoint source pollutants.

The existing concrete-lined "drainage trench" that drains the north end of the Lihue airport discharges along the coastline, causing severe soil erosion along the bluff, and localized sedimentation and turbidity of nearshore marine waters. Similarly, most of the urban development near the proposed complex discharges into Kalapaki and Nawiliwili Stream, both of which are degraded due to increased urban stormwater runoff and pollution which have caused significant sedimentation, stream bank erosion, and turbidity.

Mr. Kudo
April 26, 2000
Page 5

Economic Impacts

The long-term economic impacts of the project indicate that one possibility is the increased eligibility of the facility to accommodate statewide or national tournaments. Currently, Kaua'i is already qualified to host statewide tennis events by pooling the use of courts at more than one site. The number of tennis courts proposed for inclusion in this project, would not, on their own, qualify Kaua'i for state events. Therefore, the presence of the eight additional tennis courts within this project would only increase the pooling potential. It would not provide a single site that qualifies to host certain statewide tennis events.

Water Quality Impacts

Water quality impacts are inadequately addressed. This section does not mention how much stormwater will be discharged, where it will be discharged, or cumulative impacts. Therefore, without such information there appears to be no basis for the statement on page V-6 that "No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project". This would be particularly true if the project's stormwater runoff flow into Kalapaki or Nawiliwili streams.

It is not just during construction that urban developments impact water quality in streams and coastal marine habitats. The development of large impervious surfaces (e.g., roofs, roadways and sidewalks, parking lots, tennis courts, etc.) will cause long-term chronic and negative impacts to water quality if stormwater runoff is allowed to discharge into storm drains and streams, or coastal waters, without appropriate Best Management Practices (BMP's) such as stormwater detention basins and vegetated biofiltration channels. These BMP's are recommended in a draft to amend the County's "Drainage Ordinance" (which should be labeled an "Urban Stormwater Quality Protection Ordinance." However, the current Drainage Ordinance (written in 1972) is inadequate to protect the quality of receiving waters from urban stormwater runoff and associated pollutants. With this in mind, it may be beneficial to research updated protocols to adhere to.

The proposed issuance of "all necessary connection and discharge permits," such as a National Pollution Discharge Elimination System (NPDES) Permit may not be effective if no one monitors the discharges. Currently, a number of NPDES permits are in effect in the region for Nawiliwili Stream and Bay, yet both remain the most polluted aquatic habitats on Kaua'i. Therefore, Hawaii Administrative Rules, Title 11, Chapters 11-55, "Water Pollution Control" does not seem to be working. The Department of Health's BMP's should include urban stormwater detention basins and vegetated biofiltration channels to filter stormwater runoff.

Mr. Kudo
April 26, 2000
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Biological Impacts

Evening lighting is proposed on page V-6 to be "designed to provide sufficient cutoff distribution for glare control." Please include the guidelines that will be followed to ensure minimal impacts to nocturnal birds. Will the measures that were suggested by the Fish and Wildlife Service be fully implemented?

Noise Impacts

Noise is not predicted to increase as a result of the project (page V-7). However, our reviewers note that noise from the Stadium Complex is sometimes disruptive. Noise from night games may be heard from several miles away, and the nearest housing is somewhat closer. There is also the possibility of a subdivision to be developed directly behind the project area. If noise containment measures are unfeasible, perhaps evening curfews will be appropriate in controlling noise levels. Noise issues should be considered when determining the extent of secondary impacts on page VIII-2.

Traffic

The project traffic assessment indicates an increase in traffic during and after construction. What mitigation measures will be implemented in response to this, especially in the area of the Kapule Highway-Rice Street intersection? Will all of the recommendations made by the traffic consultant be implemented?

When discussing traffic issues on page V-8, the Draft EA states that "The proposed... [e]xpansion project includes provisions for an additional parking facility where the existing soccer field is located." There does not seem to be any plan to relocate the soccer fields if the parking lot is developed. What is to happen to those youth and adult soccer leagues that currently utilize the fields? There is currently one full-sized field and three smaller fields, which are used for both practice and games. Other fields in Lihu'e are unable to accommodate the number of games played.

With regard to participant safety, it may be beneficial to create area use access points to minimize pedestrian traffic near the highway. If the gymnasium and swimming pool complexes are located at the eastern end of the property with their respective main entry/exit points positioned on the sides away from the Kapule Highway, it may keep their participants and spectators away from the highway. It would also make it nearly impossible for errant objects (e.g. soccer balls) associated with games in the open field area from creating a disturbance on the highway. It would also eliminate people, especially children retrieving errant objects, from the highway area.

Mr. Kudo
April 26, 2000
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Conclusion

This project is commended for its cooperation with civic groups in its planning stages. There seems to be some need for expanded facilities in the area, but these needs and intents were not indicated clearly in the Draft EA. It is our recommendation that these points be included in the Final EA, and that the various other issues which were previously outlined be addressed before construction commences. Of particular concern are traffic and parking issues, water quality and runoff issues, and the loss of the soccer fields and open space. Thank you for the opportunity to comment on this draft EA.

Sincerely,



Peter Rappa
Assistant Environmental Coordinator

cc: Akinaka & Associates, Ltd.
OEQC
James Moncur, WRRC
Marshall Mock, Physical Sciences, Kauai CC
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Don Heacock, DLNR
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August 3, 2000

FILE COPY

University of Hawaii, Environmental Center
2550 Campus Road, Crawford 317
Honolulu, Hawaii 96822

Attention: Peter Rappa
Assistant Environmental Coordinator

Project: Vidinha Stadium Complex Expansion
Kauai Department of Public Works
Lihue, Kauai, HI. (TMK: 3-6-02:16 & 18)

Subject: Draft Environmental Assessment

Reference: UHM Environmental Center ltr EA: 00206 dated April 26, 2000

In response to the comments within the reference, we offer the following:

1. **Comment:** Is the ultimate goal of this proposal to expand the scope of recreational activities available at this site? Is it to provide facilities accessible to those from the Lihue area or from the entire island? Is it to provide Kauai with upgraded facilities so it might attract more statewide, national and international competitions? What is the projected volume of people and events to be serviced?

We would also like to know the projected construction timeline for the various project phases listed on page II-2. Are there any projected numbers of users for each facility at any given time?

Response: Expansion of recreational activities at this site is within the ultimate goal of this project. The project will offer facilities for instruction, conventions and training. The facilities will be regional and accessible to those from the entire island. The upgraded facilities might attract more statewide competitions but national and international competitions require further improvements and off-site support. Five thousand people would be the desired maximum volume of people at any event. To service a larger volume would require temporary facilities like food booths and parking lot use arrangements with the adjacent government agencies.

Construction timelines for the various project phases have not been established. These phases will be implemented when the administration and legislative bodies of the county establish that priority and funding of the phase become foremost. The projected number of users for each facility is indicated by multiplying the number of parking stalls in the table of page II-3 by 5.

2. **Comment:** The discussions on page II-3 states that "The baseball field would still be available for overflow parking for 355 vehicles." How often is this overflow parking needed presently, and how full does it get?

Response: The need for overflow parking is seldom to rare. Special events and critical football games require overflow parking several times a year. There has been sufficient space for the vehicles in the past events. Future overflow parking can utilize the parking area of the proposed government projects and the adjacent future subdivision.

3. **Comment:** What prevents the county from scheduling two event simultaneously? Is there, for example, the possibility of scheduling a baseball game and an activity in the gym at the same time? How will parking be handled in this situation?

Response: Public reaction and negative publicity are items that would prevent simultaneous major activities. The facilities staff is responsible to schedule all events at the complex and major events require long lead time and preparation. The long lead time requirement will allow scheduling that prevents the parking problem you envision.

4. **Comment:** Additional thought should be given to the parking situation to prevent parking in undesirable areas such as along busy roads, near intersections, or in private lots or driveways. This is especially true if the circumstance arises that funding for the additional parking lot is not available.

Response: A project phase will not be implemented if parking congestion will be a normal occurrence. Parking is prohibited on Kapule Highway the major road in the area.

5. **Comment:** The estimated operational cost is listed on page II-4 as approximately \$370,000. Do these cost estimates include debt servicing? The DEA subsequently states on page V-5 that "revenue generated at the events should support the projects annual operating cost."

Response: The estimated operational costs do not include debt servicing. The statement will be revised by adding a leading phrase "It is desired that..."

6. **Comment:** How much revenue does the facility bring in at present? Is it enough to cover present expenses? We hope that a discussion of operational expenses in the Final EA would cite current revenue statistics, usage figures, and estimated usage and revenue figures once the addition is built.

Response: The revenue of the existing facility should not be a consideration for project implementation. Present operational expenses are within the stadiums (Vidinha & Hanapepe) annual budget of \$327,375. The Vidinha stadium maintenance staff consists of two park caretakers. Stadiums revenue in FY98-99 was \$10,800. Information regarding programs, staffing, budget and expenditures is available within the county's annual report.

7. **Comment:** We would like to know if alternate sources of funding have been considered for infrastructure development. Regardless of land size and use allocation, if infrastructure is to be developed, initial development cost and subsequent maintenance cost might be covered through donor fund sources. Other facilities have been developed with contributions from the private sector. The Punahou School athletic facility (gymnasium and/or covered swimming pool complex), for example, was funded by this means. Financial need does not seem to be a criterion for participation in this type of arrangement with this donor foundation. Could this be a viable source of funds for development of the gymnasium and/or swimming pool complex of this project?

Response: Comparison with Punahou School for resource funding is an injustice as Punahou School has a larger base of affluent alumni, parents and other donors. The County administration approached the YMCA to develop the project but negotiations were terminated upon review of the YMCA proposal. A private development of a roller blade rink was discussed at the community information meeting and ended when no proposal was offered. Financial need is not a criteria for participating in county programs.

8. **Comment:** This section (flood hazard) on page III-3 neglects to mention how the proposed Center will increase storm water runoff, particularly considering the cumulative impacts of adjacent developments, and how the overall increase in urban storm water runoff will effect flooding in downstream/downslope areas.

Response: The proposed expansion area will increase storm runoff in consideration of the increase of impervious surfacing. Technical review of the pertinent drainage facilities indicate that the storm water runoff can be adequately transported by the existing facilities. The drainage aspects of the project is discussed in detail in the drainage section of the facilities master plan report. Impacts from the adjacent developments will require improvements along Kapule Highway and into the Hyatt Resort property. A detention pond is proposed in the County portion of the adjacent development. The requirements for downstream improvements and construction of a detention pond were conclusions of drainage studies for the adjacent developments.

9. **Comment:** Potential flood conditions are addressed by the inclusion "local drainage improvements." What are the improvements? Also, what is the condition of the current drainage system on the property?

Response: Local drainage improvements will consists of catch basins, drain inlets, drain pipes, swales and similar items. Roadway items including pavement, gutters and curbs will direct flows to the drainage improvements which will collect and transport storm flows to the major facilities.

The condition of the current drainage system is adequate for the existing and proposed project improvements. An earth ditch serves as the major facility requires periodic maintenance to trim grasses and bushes to prevent blockage and maintain a reasonable coefficient of friction.

10. **Comment:** What does the term "domestic flow" mean as it is used on page III-3 to describe utilities? This section states that this "domestic flow is adequate based on scheduling only one major event at either the football stadium or the gymnasium." How will simultaneous scheduling of events at these facilities effect the ability of the utilities to handle domestic flow?

Response: Domestic flow refers to potable water for consumption as differentiated from fire flow. Although the scheduling/reservation system will prevent simultaneous events, the domestic flows should be adequate because the fixture units are limited. Pressure drops may be experienced but will not affect the usage of the facilities.

11. **Comment:** This complex could benefit from efficiency planning, including building designs that maximize natural lighting and ventilation, and energy efficient lighting which may be linked to timers to ensure that lights are not on during times of facility inactivity.

Response: Current building codes promote efficient lighting. Building designs that maximize natural lighting and ventilation must be balanced with the acoustic and humidity requirements. The building designer will be directed to investigate the use of natural lighting and ventilation. The county has included light timers for their recreation facilities for many years.

12. **Comment:** The conversion of the soccer field into a parking lot also draws concern over the loss of a reconfigurable, open green space that benefitted a variety of users with a venue for different activities. This field is currently used for open field games such as soccer, running, walking, playing Frisbee, kite flying, and other outdoor activities. If this reconfigurable open space is to be completely eliminated, is there any provisions for replacing it? Are there vacant lots near the project site that can be used to maintain open green space for these types of activities?

Response: The use of the expansion area for soccer has been known as a temporary action from its inception. There are other parks, playgrounds and school yards that can support the other listed outdoor activities. If multi-purpose use is acceptable, there should be parks, athletic fields and school grounds that can substitute for the soccer fields.

13. **Comment:** Any project should consider that reconfigurability may be reduced, infrastructure development costs may be significant, and that maintenance costs may increase significantly. In circumstances such as this one where a change in land use is decided, it may be beneficial to consider retaining a large reconfigurable component and to ensure that areas that lose this type of reconfigurability still retain the opportunity to serve a large number of people per unit time, such as in the case of the gymnasium. Another consideration is to adopt changes in phases to minimize the immediate impact on total reconfigurable areas, and to phase in the cost of the initial infrastructure development and periodic maintenance.

Response: The land use for the project area will remain as recreation. As discussed in the EA, the project will be implemented in phases. The master plan phasing will be the ballfield initially - there will be no reconfiguration requirement. When the second phase (tennis courts) and then the third phase (swimming pool) are constructed, the soccer fields on the Kapule Highway side will remain in use. Only when the gymnasium and parking lot are initiated will there be a need to completely relocate the soccer activity.

14. **Comment:** Tourism is the number one industry for the state, and for every county of the state. Kauai is the only county whose most significant recreational facility is one of the first significant structures that a visiting tourist may see. At present, that facility, while appreciated, is not something that necessarily captures the eye of the arriving tourist. If the land adjacent to the current sports complex and proposed judicial and police complexes were acquired and dedicated to sports or more generally, community use, Kauai could maximize that "first impression" on every arriving tourist.

Response: The value of the "first impression" for visiting tourists exiting the airport is a known commodity for the Island of Kauai. The county, state and industry leaders are implementing a gateway beautification project along Ahukini Road and Kapule Highway.

15. **Comment:** If there is a decision to expand the amount of land involved in this community project, then it may be wise to locate the gymnasium, swimming pool complex, tennis courts, parking and possibly other components on the newly acquired land fronting the highway and North of the existing and proposed project areas. This would allow for continuous uninterrupted use of existing recreational areas during construction of new facilities.

Response: The project is planned at the proposed 10 acre site since 1969 when the master plan for the Stadium Complex was developed. The complex cannot be areally expanded as the adjacent lands are not available. However, there may be future opportunities that would allow the County to develop additional parks for the near vicinity for recreational purposes.

16. **Comment:** Our reviewers were concerned with the lack of discussion on the cumulative impacts of development in the project site. In addition to the proposed stadium expansion, the Draft EA indicates on page III-5 that there are also several other projects including a police station, a bus facility, and a judiciary complex. What are the expected traffic, and utility impacts from these developments?

Response: Separate documents were developed for the other projects outside the stadium complex expansion. These documents address the cumulative impacts in conjunction with the master plan for the area. As examples, the traffic study warranted a signalized intersection at Kapule Highway and the utility study resulted in limiting the water meter size for the judiciary complex.

17. **Comment:** One significant deficiency in the Draft EA was the cumulative impact of increased urban-induced stormwater runoff that will result from the expansion of the stadium and from future and existing projects in the area. No mention is made of how much impermeable surface will be created, how much this change will increase stormwater runoff, and nonpoint source pollutants.

Response: Impacts from other future projects in the area are addressed in separate documents. Increased runoff from these other sites have required negotiations with the downstream landowners (the State Highway Division and Hyatt Resorts). Meetings to address the drainage concerns have been completed resulting with an acceptable drainage scheme.

18. **Comment:** The existing concrete-lined "drainage trench" that drains the north end of the Lihu'e airport discharges along the coastline, causing severe soil erosion along the bluff, and localized sedimentation and turbidity of nearshore marine waters. Similarly, most of the urban development near the proposed complex discharges into Kalapaki and Nawiliwili Stream, both of which are degraded due to increased urban stormwater runoff and pollution which have caused significant sedimentation, stream bank erosion, and turbidity.

Response: Thank you for this comment. Storm flows from this project site will drain through grass lined swales of the golf course into lakes prior to discharging into Nawiliwili Stream. Draining storm water into the natural or manmade grass swales or ditches is listed as a best management practice to reduce pollutants and sediment loads.

19. **Comment:** The long-term economic impacts of the project indicate that one possibility is the increased eligibility of the facility to accommodate statewide or national tournaments. Currently, Kaua'i is already qualified to host statewide tennis events by pooling the use of courts at more than one site. The number of tennis courts proposed for inclusion in this project, would not, on their own, qualify Kaua'i for state events. Therefore, the presence of the eight additional tennis courts within this project would only increase the pooling potential. It would not provide a single site that qualifies to host certain statewide tennis events.

Response: The fact that a single site cannot host certain statewide tennis events is known. Pooling use of courts at more than one site is an ongoing means for staging events to reduce the qualifying time

schedule. The presence of the eight additional courts will allow an option to schedule all the events at one location over a long period and/or schedule the semi-finals in the same courts as the final events.

20. **Comment:** Water quality impacts are inadequately addressed. This section does not mention how much stormwater will be discharged, where it will be discharged, or cumulative impacts. Therefore, without such information there appears to be no basis for the statement on page V-6 that "No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project." This would be particularly true if the project's stormwater runoff flow into Kalapaki or Nawiliwili streams.

Response: The Vidinha Stadium project develops 10 acres in a drainage area that is approximately 200 acres in size. There would be a very nominal increase in storm flowages. Best Management practice of draining storm water through natural swales and water courses and its long travel path will help reduce pollutants.

21. **Comment:** The development of large impervious surfaces (e.g., roofs, roadways and sidewalks, parking lots, tennis courts, etc.) will cause long-term chronic and negative impacts to water quality if stormwater runoff is allowed to discharge into storm drains and streams, or coastal waters, without appropriate Best Management Practices (BMP's) such as stormwater detention basins and vegetated biofiltration channels. These BMP's are recommended in a draft to amend the County's "Drainage Ordinance" (which should be labeled an "Urban Stormwater Quality Protection Ordinance." However, the current Drainage Ordinance (written in 1972) is inadequate to protect the quality of receiving waters from urban stormwater runoff and associated pollutants. With this in mind, it may be beneficial to research updated protocols to adhere to.

Response: The County is revising the Storm Drainage Standards. Draft standards proposing detention basins to handle increase in storm flow and water quality purposes for specified projects. Best Management Practices is also being proposed for pollution control.

The project is using Best Management Practice of draining storm water through natural grass lined channels. This project has adequate off-site facilities to handle the runoff and pollutant prior to reaching the receiving waters.

22. **Comment:** Currently, a number of NPDES permits are in effect in the region for Nawiliwili Stream and Bay, yet both remain the most polluted aquatic habitats on Kaua'i. Therefore, Hawaii Administrative Rules, Title 11, Chapter 11-55, "Water Pollution Control" does not seem to be working. The Department of Health's BMP's should include urban stormwater detention basins and vegetated biofiltration channels to filter stormwater runoff.

Response: This comment should be directed to the Department of Health.

23. **Comment:** Evening lighting is proposed on page V-6 to be "designed to provide sufficient cutoff distribution for glare control. "Please include the guidelines that will be followed to ensure minimal impacts to nocturnal birds. Will the measures that were suggested by the Fish and Wildlife Service be fully implemented?"

Response: The guidelines for lighting will conform to the Illumination Engineering Society of North America. The field lights are required to be of a certain height to provide adequate illumination but can be aimed to minimize glare. Limiting the pole heights to 25 feet as recommended by the Fish and Wildlife Service is not practical in terms of ball play and observation. There will be concerns of safety for the active participants and even the spectators.

24. **Comment:** Noise is not predicted to increase as a result of the project (page V-7). However, our reviewers note that noise from the Stadium Complex is sometimes disruptive. Noise from night games may be heard from several miles away, and the nearest housing is somewhat closer. There is also the possibility of a subdivision to be developed directly behind the project area. If noise containment measures are unfeasible, perhaps evening curfews will be appropriate in controlling noise levels. Noise issues should be considered when determining the extent of secondary impacts on page VIII-2.

Response: It should be noted that the noise incidents are generated from an existing facility. This project will not modify or expand the existing facility (stadium) where the sometimes disruptive noise is generated. The proper forum to establish curfews for an existing facility is not in this document.

This project proposes noise containment where excessive noise may be generated from the project. Our noise study recommends that if noise sensitive activities are regularly scheduled in the gymnasium, it be enclosed and air conditioned to mitigate the Lihue Airport aircraft noise.

25. **Comment:** The project traffic assessment indicates an increase in traffic during and after construction. What mitigation measures will be implemented in response to this, especially in the area of the Kapule Highway - Rice Street intersection? Will all of the recommendations made by the traffic consultant be implemented?

Response: The Kapule Highway - Rice Street intersection is under study by the State Highways Division. Recommendations made by the project's traffic consultant will be implemented.

26. **Comment:** When discussing traffic issues on page V-8, the Draft EA states that "The proposed... [e]xpansion project includes provisions for an additional parking facilities where the existing soccer field is located." There does not seem to be any plan to relocate the soccer fields if the parking is developed. What is to happen to those youth and adult soccer leagues that currently utilize the fields? There is currently one full-sized field and three smaller fields, which are used for both practice and games. Other fields in Lihue are unable to accommodate the number of games played.

Response: The use of the area for soccer is of a temporary nature. Soccer leagues that temporarily utilize the fields must relocate when the additional parking facility is required, which is more than several years away. Other areas available to house the soccer activities are UluKo Park, mauka and adjacent to the UluKo Subdivision; the county park mauka and adjacent to the Chiefess Kamakahelei

Middle School; the vacant lands along Kaumualii Highway in the Kauai Community College (KCC), the new athletic-field at the Island School above KCC and the old Puhi Camp area west of the KCC campus. The County may also have opportunities to develop additional parks in vicinity of the Stadium Complex as the agricultural lands are developed.

27. **Comment:** With regard to participant safety, it may be beneficial to create area use access points to minimize pedestrian traffic near the highway. If the gymnasium and swimming pool complexes are located at the eastern end of the property with their respective main entry / exit points positioned on the sides away from the Kapule Highway, it may keep their participants and spectators away from the highway. It would also make it nearly impossible for errant objects (e.g. soccer balls) associated with games in the open field area from creating a disturbance on the highway. It would also eliminate people, especially children retrieving errant objects, from the highway area.

Response: Thank you for the comment. During the initial phases of the project, the existing conditions will remain. In the completed facility, children should not be retrieving soccer balls from the highway since the fields will be relocated.

28. **Comment:** There seems to be some need for expanded facilities in the area, but these needs and intents were not indicated clearly in the Draft EA. It is our recommendation that these points be included in the Final EA, and that the various other issues which were previously outlined be addressed before construction commences. Of particular concern are traffic and parking issues, water quality and runoff issues, and the loss of the soccer fields and open space.

Response: We will review the Draft EA and expand discussions or address other issues of concern as necessary in acknowledgment of this transmittal.

University of Hawaii
Environmental Center
August 3, 2000
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Should you have any questions or require addition information, please contact me at 536-7721. Thank you for your time.

Very truly yours,



Henry S. Morita
Executive Vice President

cc: Wallace Kudo, KDPW
OEQC
James Moncur, WRRRC
Marshall Mock, Physical Sciences, Kauai CC
Tracy Tucker, Computer Specialist, Kauai CC
Don Heacock, DLNR
Sherri Hiraoka, Environmental Center

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FINAL ENVIRONMENTAL ASSESSMENT

For the
* **VIDINHA STADIUM COMPLEX EXPANSION** *
Lihue, Kauai, Hawaii
TMK: (4) 3-6-02: 16 & 18

PROPOSING AGENCY:

County of Kauai
Department of Public Works
4444 Rice Street
Lihue, Kauai, Hawaii 96766

Responsible Official: 
Cesar C. Portugal, County Engineer

AUG 15 2000
Date

PREPARED BY:

Akinaka & Associates, Ltd.
Consulting Engineers
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

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AUGUST 2000

This Environmental Document Was Prepared Pursuant to Chapter 343, Hawaii Revised Statutes

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I. INTRODUCTION

A. PROJECT DESCRIPTION

The Vidinha Stadium Complex Expansion (the "Project") will develop the vacant ten (10) acre parcel which is immediately north of the existing stadium facility. The parcel is owned by the County of Kauai and was purchased for the stadium complex expansion. Although previously overgrown with volunteer cane, grasses and shrubbery, the parcel was regraded by the County in 1995 so that it could be used as a temporary fairground, overflow parking area, soccer field, and other activities.

Minimum requirements for the expansion include a swimming pool and tennis courts. The project will also include field lighting for the existing baseball field located adjacent to the football stadium. Depending on the availability of funding, a gymnasium complex and additional vehicular parking is also proposed. A "Facilities Planning Report" has been developed to determine size, features and layout of the facilities within the expansion area. The report not only includes infrastructure analysis but also contains input from a Citizens Advisory Committee and addresses concerns received during a public informational meeting.

B. PROJECT LOCATION

The Project will be located in the town of Lihue, the County seat (See **EXHIBIT 1: LOCATION MAP**). The existing stadium is situated immediately north of Lihue Industrial Park, Unit 1. Sugar cane is cultivated in the fields west of the Project and the recently completed Veterans Center is immediately north. Kapule Highway borders the east boundary of the Project with the Kiele Golf Course located across the stadium, on the makai side of the highway (See **EXHIBIT 2: VICINITY MAP**).

Access to the complex is via Hoolako Street to the west and Kapule Highway to the east, with Ahukini Road and Rice Street serving as feeder roads (see **EXHIBIT 3: SITE PLAN**). There are three entrances to the complex. One is at the northeast corner of the existing complex site, intersecting Kapule Highway. The other two are at the western corners of the complex, intersecting Hoolako Street.

II. DESCRIPTION OF PROPOSED PROJECT

A. BACKGROUND AND EXISTING CONDITIONS

Expansion of the existing complex was initiated in 1969 when a master plan was developed. Subsequently, the 10 acre site was acquired but other facilities were previously considered for the site, including a senior center complex, fairgrounds and athletic fields. The recently completed Facilities Planning Report with input from the Citizens Advisory Committee confirmed the development of the site for swimming, tennis, a gymnasium and supporting facilities.

The expansion site is presently vacant. The existing Vidinha Stadium Complex includes:

1. Baseball Field

There is a baseball field with bleachers and a practice area within the complex. The available seating is currently provided by portable bleachers. The field does not have floodlighting for night games.

2. Football Field

The football and track stadium has concrete bleachers with seating for 5000 spectators. These bleachers also house team locker rooms, concession stands, public restrooms radio and press facilities, and floodlighting.

3. Parking Facilities

Currently, there are approximately 748 parking stalls within the complex. There is also an area reserved for parking buses which transport people to and from the stadium. There is also space for overflow parking of 355 additional cars in the outfield area of the baseball field.

B. PROPOSED IMPROVEMENTS

The initial improvements of the proposed project include the addition of a swimming pool, tennis courts, and floodlighting for the existing baseball field. Depending on the availability of funding, additional improvements would include a gymnasium and additional vehicular parking. These improvements were

agreed upon by the citizen's advisory committee. The anticipated construction schedule for these facilities is as follows:

- Phase I - Swimming Pool
- Phase II - Tennis Courts
- Phase III - Gymnasium and Parking Lot

1. Swimming Pool

A swimming pool is a facility which is desired by the community and which conforms to the state legislative funding requirements. This pool should be 50 meters in length by 25 yards in width to accommodate competitive swimming events. Locker rooms, showers, restrooms, storage, and a small office should be located adjacent to the pool. Open type bleachers with seating capacities of 500 should be located on each side of the length of the pool, providing 1000 seats for spectators. Overhead lighting of the pool should be provided in order to hold events at night.

2. Tennis Courts

A bank of 11 tennis courts is proposed for the west end of the expansion site. The courts should be of regulation size and dimension, constructed of an asphalt concrete with a color coating surface. The type of surfacing to be used will be compatible for tennis and roller blading activities. A 10' high chain link fence should enclose the court area.

Ideally, all courts should be lighted and equipped with timers in order to allow for night play if desired. Portable type bleachers and a small open pavilion with restroom facilities are planned adjacent to one of the courts for exhibition matches. Drinking fountains would also be provided nearby.

3. Baseball Field Lights

The proposed project will also equip the existing baseball field with floodlighting for night games. The field lights will be designed to conform with the requirements for a semi-professional facility with 5,000 spectators or less. Flood lighting will be mounted on a total of eight galvanized steel poles, approximately 90 feet in height. The lights will be strategically placed around the perimeter of the existing field to provide optimum illumination levels for night time use.

4. Gymnasium

The primary use of the gymnasium would be for basketball games, though many other activities could be accommodated as well. It would also be an ideal site in which to hold events such as volleyball games, wrestling matches, concerts, exhibits, and large meetings.

The spectator seating will be provided by four sets of telescoping bleachers surrounding the court. The bleachers can be folded back against the wall when not in use, providing greater flexibility in seating arrangements. This type of bleacher system would also allow for much more practice space when the seats are folded.

Locker rooms with showers, public restrooms, storage space, and a small office are also part of the plan. Sufficient lighting, a public address system, and an electric scoreboard would be provided in this facility.

Air conditioning, while seeming to be an unjustifiable luxury, is in fact necessary to mitigate the high noise levels from nearby Lihue Airport. An acoustic study by Y. Ebisu & Associates, dated July 1995 addresses the noise concerns (See Appendix A).

5. Parking Facilities

The proposed parking lot would add an additional 393 parking spaces to the complex. With the additional spaces, the total number of spaces will be 1141. The baseball field would still be available for overflow parking for 355 vehicles. Parking stalls are not planned within the Kapule Highway right-of-way.

Using the Land Use Ordinance of the City and County of Honolulu as a reference, a sports facility should provide 1 space of off-street parking for every 5 fixed seats. Thus, the following numbers of stalls would be required for the various facilities within the complex:

<u>Facility</u>	<u>Number of Required Parking Stalls</u>
Football Stadium	1000
Baseball Stadium	800
Swimming Pool	200
Tennis Courts	33
Gymnasium	800

It is assumed that only one of the facilities will be fully occupied at any given time. Therefore, the minimum number of stalls required will be equal to the number of spaces required for the facility with the greatest seating capacity. Thus, the minimum number of stalls for the complex is 1000. With the addition of the proposed parking lot, this requirement will be exceeded.

On-street parking is also available along Hoolako Street for overflow vehicles.

C. COST ESTIMATES

Cost estimates were prepared for each of the proposed improvements. These estimates include preliminary construction costs as well as annual operational expenses. As shown on the following table, the total construction cost of the proposed project is estimated to be approximately \$18.9 million. The annual operational expenses are estimated to be about \$370,000.

ORDER-OF-MAGNITUDE ESTIMATE

1. CAPITAL IMPROVEMENTS COST

a.	SWIMMING POOL (50M X 25Y)	\$ 6,876,900
b.	TENNIS COURTS (11 COURTS)	1,651,000
c.	GYMNASIUM (5,000 CAPACITY)	9,526,000
d.	BASEBALL FIELD LIGHTS.....	<u>800,000</u>
	TOTAL	\$18,856,900

2. ANNUAL OPERATIONAL EXPENSES

a.	SWIMMING POOL (50M X 25Y)	\$ 84,300
b.	TENNIS COURTS (11 COURTS)	33,200
c.	GYMNASIUM (5,000 CAPACITY)	230,300
d.	BASEBALL FIELD LIGHTS.....	<u>20,790</u>
	TOTAL	\$ 368,590

D. LIST OF POTENTIAL PERMITS AND APPROVALS

1. Federal Government

U.S. Department of Transportation, Federal Aviation Administration

- Notice of Proposed Construction or Alteration

2. State of Hawaii

Department of Transportation

- Construction Plan Approval for Work Within the Right-of-Way

Department of Health

- Construction Plan Approval
- NPDES Permit for Discharges of Stormwater Associated with Construction Activity (Clean Water Branch)
- Construction Plan Approval (Commission on Persons with Disabilities)
- Community Noise Permit for Construction Activities (Noise, Radiation, and Indoor Air Quality Branch)
- Public Swimming Pool Permit

3. County of Kauai

Planning Department

- Special Permit
- Use Permit
- Class IV Zoning Permit

Department of Water

- Construction Plan Approval

Department of Public Works

- Construction Plan Approval

III. ENVIRONMENTAL SETTING

A. TOPOGRAPHY

The ten acre site is approximately rectangular with dimensions of 400' x 1,150' with north-south gradient of 3%±. Due to extensive sugar cane cultivation, the terrain is level. Additionally, the County recently graded the site for use as a fairground, overflow parking, soccer field, and other activities.

Elevation at the site varies between 162 and 174 feet above sea level. Topographic information of the area is available in the Lihue Quadrangle Map published by the U.S. Geological Survey.

B. GEOLOGY / SOILS

The Island of Kauai is the oldest of the major islands in the Hawaiian chain. The Kauai Volcanic shield built itself off the ocean floor approximately two to four million years ago. Rock formations belonging to this original shield are part of the Waimea Canyon Volcanic Series, a major portion of which are the thin lava flows of the Napili formation which later covered the shield mass.

The Geological and Topographical Map of the Island of Kauai which is a supplement to Bulletin 13 "Geology and Ground-water Resources of the Island of Kauai," by G.A. MacDonald, D.A. Davis and D.C. Cox shows that the project site is underlain with basalt from lava flows of the Koloa Volcanic series. Lavas of the Koloa Volcanic series are for the most part poorly to moderately permeable. Basal water occurs in the rocks where they extend below sea level.

Soils at the project site are classified as Lihue Silty Clay (LhB) and (LIB). Permeability is moderately rapid, runoff is slow and erosion hazard is no more than slight.

C. CLIMATE

The climate of Kauai is comfortably uniform and is characterized by the northeast tradewinds generated by regions of high pressure to the north. These winds keep the average monthly temperature within the range of 69° in February to 77° in August.

The consistent approach of the tradewinds from the Northeast distinguishes the island into windward and leeward sides. Windward Kauai receives larger amounts of rainfall as the result of the condensation of water vapor as it is forced up into the atmosphere by the mountain mass. Mount

Waialeale, for example, has a mean annual rainfall of 466 inches. Wainiha on the windward side of Kauai received 80 to 90 inches per year. The project site, located one and one-half miles from the ocean has an annual rainfall of 50 inches.

D. GROUNDWATER

The principal sources of ground water of the island of Kauai are from rocks of the Waimea Canyon volcanic series. These rocks are typically highly permeable and yield water readily to wells. The Koloa Volcanic series, in contrast, tend to be poorly to moderately permeable and offer limited yield. In the Lihue area, which is within the Koloa Volcanic series, water is obtained primarily from wells which tap basal aquifers.

E. BIOLOGY

The site was once cultivated for sugar cane by the Lihue Plantation Company. Natural vegetation at the site has been replaced by sugar cane and later by weeds, grass and shrubbery. The site was recently regraded (early 1995) so that it could be used as a temporary fairgrounds, soccer field, overflow parking area, and other activities.

No threatened or endangered birds are known to inhabit the area. Common urban birds, such as mynahs, doves, cardinals, and sparrows were observed at the project site. Wildlife inhabiting the area include stray cats, and rats and wild chickens which are common in open areas next to residential areas.

F. AIR QUALITY

Although no information on air quality at the project site was obtained, it is generally observed that the air is relatively clear and low in pollution. This is because low density of vehicular traffic and the consistent tradewinds at the site.

Although vehicular emissions will increase during periods of project activities, these emissions are not considered significant. Fugitive dust emissions during clearing and grading will be localized and temporary. Use of water trucks and irrigation systems will mitigate the fugitive dust concerns.

G. NOISE

Noise emanating from the project will be compatible with that from the existing facility. Meets at the swimming pool will produce the highest level noise from the project. The noise level will be much less than that of the football stadium or baseball field. Appendix A discusses noise that may affect the use of the project generated from beyond the property line.

H. ARCHAEOLOGY

There are no identified historic or archaeologically significant locations at the site or immediate vicinity. The nearest identified site is along the coast about a half-mile away. However, should any unanticipated sites, artifacts or remains, such as shell, bone or charcoal deposits, be discovered during construction, the work would be halted and mitigating measures will be discussed with the State Historic Preservation Office prior to commencing construction activity.

The project area has been under cane cultivation for many years. The ground has been completely disturbed by heavy equipment used for planting and harvesting. Items of historical value that may have existed previously on the site have been destroyed by the heavy equipment.

I. FLOOD HAZARD

The project site is included within Flood Insurance Rate Map, Panel 150002 0202C. It is classified as Zone X which designates areas determined to be outside the 500-year flood plain.

Flood flows generated by the westerly residential areas are either directed away from the project or collected in an existing ditch system on the southerly border of the existing complex. The project will include local drainage improvements.

J. UTILITIES

Domestic flow is adequate based on scheduling only one major event at either the football stadium or gymnasium. The existing meter and distribution system would be maintained. For fire flow, a 12-inch main is available on Kapule Highway and a separate meter will be requested.

Upgrading of the facilities' sewer collection system will be insignificant. The County's Lihue Sewage Treatment Plant is approximately a quarter of a mile away and has the capacity to treat flows from the expanded facility. Additional electrical service will be required for the project. Another KECO metered service from Kapule Highway will be requested. The facilities within the project will be

connected by an underground duct system. The existing electrical system would remain intact and service only the existing stadium complex.

K. TRAFFIC

A traffic impact report was prepared by The Traffic Management Consultant (included as Appendix B). The report evaluated the existing traffic condition and future conditions with and without the project.

It is anticipated that there will be an increase in traffic within the stadium complex. To keep traffic flowing, a drop off area will be included in the plans. To mitigate backup of vehicles exiting to Kapule Highway, a left turn storage lane is proposed.

L. LAND USE

1. State Land Use Plan

The State Land Use Commission designates properties in four categories: Agriculture, Rural, Urban, and Conservation. The proposed project lies within land designated as Agriculture.

Classification of Kauai lands by State Land Use Commission (Jan 1990).

Agriculture	140,595 AC (39.8%)
Rural	1,233 AC (0.3%)
Urban	12,976 AC (3.7%)
Conservation	198,732 AC (56.2%)
TOTAL	353,900 AC (100.0%)

2. County of Kauai General Plan

The General Plan for the County of Kauai, dated March 1970, provides information on the surrounding communities and land use designations. Also provided are generalized statements regarding transportation, sewer and water systems, storm drainage, etc. The General Plan guides the orderly development of the county.

The project conforms to the General Plan as it lies within land designated by the Lihue Map as Urban Mixed Use District. The proposed project is not within the Special Management Area.

M. OTHER PROJECTS IN THE AREA

The County of Kauai is planning to construct the Kauai Police Station and the County Bus Facility on the property abutting the Vidinha Stadium parcel to the north. In addition, the State of Hawaii is planning to construct the Kauai Judiciary Complex in the same area.

IV. SOCIO-ECONOMIC SETTING

A. POPULATION

The population of the County of Kauai in 1990 was 54,099 of which 11,649 or 21.5 percent reside in the Lihue District. Between 1980 and 1990 the Lihue District's population grew from 8,590 persons to 10,663 persons. This growth represented an annual increase of 2.2 percent which compares closely to the annual growth of 2.3 percent between 1970 and 1990, increasing from 6,766 persons in 1970.

Projected population changes for the Lihue District are contained in the Office of State Planning's 1992 State Land Use District Boundary Review for Kauai. The district population is projected to increase from 11,649 in 1990 to 17,171 in 2000 and 24,384 in 2010.

B. ECONOMY

Sugar cultivation is the leading agricultural activity on Kauai. It's position will shrink in scale due to the anticipated closure of McBryde Sugar Co. The anticipated loss in sugar activity may be partially replaced by diversified agriculture such as coffee and ornamental plants.

The County of Kauai should experience economic growth generated by the recovery and expansion of the visitor industry and associated activities. The growth will depend on the return of major hotels to active business, development of new visitor activities and the success of alternative agriculture crops.

Personal income earned in 1989 by Kauai residents totaled \$790 million. Average per capita income was \$15,585 which was 4.9 percent higher than the average 1988 income.

C. PUBLIC CONTACT

In addition to the input directly from the Citizens Advisory Committee, two public informational meetings were convened to receive input and discuss the projects. The first public informational meeting was held on June 29, 1994 at the Kauai War Memorial Hall in Lihue. This meeting was general in nature to elicit community desires. Major items from the public were.

1. Repair and upgrading of the existing facilities (track, baseball and football) were requested to be the initial priority.

2. Temporary use of the expansion area for soccer fields was requested to continue.
3. Additional / new tennis courts desired for the Lihue area to maintain existing skills and sponsor statewide tennis tournaments.

A second public informational meeting was held on November 30, 1995 at the Lihue Neighborhood Center. Dual use of the tennis courts for roller blading was expressed. The need for a regulation length swimming pool was discussed, with the pool depth established for instructional swimming. Private funding of the hard surfaced area (exclusive use for roller blading) and leasing the area to the YMCA were other items proposed at the meeting.

The private enterprise to develop and operate the hard surface area did not follow-up on the initial proposal. The YMCA's request would be based on County development of the area to their specifications and for their programs. After consideration of the various schemes, the Citizens Advisory Committee established the improvement program.

V. PROBABLE IMPACTS AND MITIGATIVE MEASURES

A. SHORT TERM IMPACTS

Short term impacts, beneficial and adverse, generally result from construction-related activities. Consequently, these impacts are of short duration and should not last longer than the duration of the construction. Although there are presently no immediate commercial or residential neighbors, measures to assure health and safety of users of the existing complex will be provided throughout all phases of construction. During non-work hours the construction work areas will be secured with safety signs and safety devices as required by State and County regulations.

1. Economic Impacts

Construction of the project is expected to be implemented in phases dependent on finances. The construction activity associated with the improvements will result in the generation of construction jobs and income during the period of construction. This construction activity in turn, will result in increased government revenues via gross excise, income, and other taxes generated by constructed spending. The estimated construction cost for the project is 18.1 million.

2. Air Quality Impacts

During construction, the air quality around the project area is expected to be affected by exhaust fumes from construction equipment and the generation of dust. Exhaust emissions from construction equipment are not expected to significantly affect the air quality of the area. The prevailing winds in the area should help to quickly disperse any exhaust gas concentration.

The discharge of dust into the atmosphere may cause concerns while grading, trenching and backfilling activities are performed. Earth material deposited on the roads from trenches, trucks or equipment may also cause dust problems when agitated by traffic. This problem, however, is not anticipated to be significant as the area has been continuously tilled for sugar cane cultivation. If dust is a significant problem, it will be mitigated by the use of appropriate water sprinkling methods, limiting the area being worked at any one time, and immediately seeding of the graded area.

The construction specifications will contain provisions that will require the contractor to minimize dust nuisance at all times and have sufficient equipment and manpower at the project site to accomplish these

requirements. Adequate and proper maintenance of construction equipment and vehicles will help to reduce emissions. The Contractor will be required to have all heavy machinery equipped with proper air pollution abatement devices. Immediate paving of completed areas of construction in addition to the frequent watering of exposed dirt areas and equipment travel ways will help to control fugitive dust concerns. Open body trucks must be covered at all times while transporting materials beyond the property line. Other types of dust controls shall be implemented by the Contractor as required to minimize air borne particles that may cause health problems and/or property damage.

Standard erosion control measures will be applied during construction to meet the requirements of applicable NPDES permit(s). All the mitigation measures to be used shall comply with the State Department of Health Administrative Rules, Title 11, Chapters 59 and 60, as well as all applicable County ordinances relating to excavation and stockpiling procedures.

Burning of clearing and grubbing material will not be allowed during construction of the project. Solid waste generated at the construction site of the proposed project shall be properly disposed in accordance with H.A.R. Title 11, Chapter 11-58.1, "Solid Waste Management Control."

3. Water Quality Impacts

During construction, significant erosion and sedimentation problems are not expected to impact the water quality of the area. However, construction activities can contribute to an increased sediment load into the drainage system especially if a significant storm occurs. Scheduling of construction to implement the temporary erosion control measures as the initial item of work will help to mitigate problems. Adverse water quality impacts can also be minimized by conforming to State and County erosion control standards.

Should discharge into a State or County storm drain system be required, the appropriate discharge permit(s) will be obtained from the respective agency. The project specifications will also require the contractor to obtain the required NPDES permit(s) from the Department of Health (D.O.H.) prior to construction. In accordance with the Hawaii Revised Statutes (H.A.R.) Title 11, Chapter 11-55, "Water Pollution Control," the contractor shall also implement a D.O.H. approved best management practices plan to prevent or minimize the discharge of sediments, debris, and other water pollutants into State waters. In addition, the contractor shall take appropriate measures during construction to prevent fuel, oil and cement products from discharging or leaching into nearby drainage systems or surface waters.

4. Traffic Impacts

During construction of improvements at the site, the construction work force will add to the traffic load during the morning and afternoon peak hours. Local traffic may experience momentary delays throughout the day as construction-related vehicles use existing roads to transport materials and equipment to the site. Additional traffic impacts will occur when the project's roadway widening joins the existing highway.

Short term traffic impacts will be mitigated by providing traffic controls, traffic safety precautions, and adequate public notice of construction activities. An approved traffic control plan will be implemented to ensure the most efficient movement of traffic through the project area. In addition, Kapule Highway (located adjacent to the project site) may help to alleviate some of the temporary traffic increases since it is a high capacity roadway.

5. Noise Impacts

Unavoidable short-term noise impacts are expected during construction activities. Impact to most of the adjacent areas will be minimal as they include agricultural lands (sugar cane), a base yard (Lihue Industrial Park), golf course (Kiele G.C.) and the Veterans Recreation Hall.

During site preparation, clearing, and construction activities, an increase of ambient noise is inevitable. Construction-related noise will be intermittent rather than continuous throughout the construction period and will cease upon completion of the project. Unnecessary noise should be reduced through the use of mufflers on construction equipment/trucks, and through the adequate and proper maintenance of construction equipment and vehicles. Although the noise level increase during construction is unavoidable, construction activities will be restricted to normal daylight working hours. The community will be given ample notice of construction activities and the elevated noise levels to be anticipated.

Construction activities will be coordinated with the Department of Health to minimize noise generation and shall comply with the provisions of Title 11, Chapter 42, "Vehicular Noise Control," and Chapter 46, "Community Noise Control" of the Hawaii Administrative Rules (H.A.R.). The Contractor will be required to obtain a noise permit in accordance with H.A.R. Title 11, Chapter 46 for construction activities proposed during regular daylight working hours. Should any night work be required, the Contractor shall obtain a noise variance from the Department of Health pursuant to H.A.R. Title 11, Chapter 46.

6. Biological Impacts

There are no known rare or endangered species of flora or fauna at the project site. The site has been cultivated in sugar cane for many years.

7. Archaeological Impacts

According to the State Historic Preservation Division, construction of the proposed project is not anticipated to impact any significant historic sites. The project area has previously been disturbed due to agricultural uses and it would be highly unlikely that significant historic sites exist. However, should evidence of historic sites, including human burials, be encountered during construction, all activities in the area of the find shall cease and the State Historic Preservation Division shall be notified immediately. The Division shall be provided sufficient time to assess the find and recommend appropriate mitigation measures. Any archaeological data recovery work that may be recommended by the Division shall be completed by a qualified archaeologist prior to the commencement of work in the area of the find. Completion of the mitigation work shall be confirmed by the Division, and a report of the findings shall be prepared and submitted to the Division for review and acceptance. If human skeletal remains are inadvertently encountered during construction, procedures outlined in the Hawaii Revised Statutes 6E-43.6 shall be followed.

8. Land Use

The proposed stadium expansion is consistent with State and County land use designations. Present and future land uses for the Vidinha Stadium property are intended for recreational uses. No land acquisition will be required as a part of the proposed project since the vacant land parcel was previously acquired by the County of Kauai for the purposes of expanding the stadium facilities. The proposed project will be in compliance with the Coastal Zone Management objectives and policies in accordance with Chapter 205A, Hawaii Revised Statutes.

B. LONG TERM IMPACTS

Long term impacts, beneficial and adverse, will result from the implementation and operation of the project. The impacts associated with these actions are identified and discussed in this section.

1. Economic Impacts

The project is intended to allow the County of Kauai to sponsor athletic tournaments, trade shows and other events that have state-wide or even national attraction. It is desired that the revenue generated at the events support the projects annual operating expenses.

Events with state-wide implications will attract off-island visitors who will require transportation, food and shelter. The magnitude of this secondary impact will be based on the schedule and promotion of the event. Repeat tournaments and return visitors will depend on the events' promoters, the program and hospitality.

2. Air Quality Impacts

The long-term environmental impacts on the ambient air quality are anticipated to be similar to present conditions. Odors and airborne particles from vehicles which ingress/egress the project site will be mitigated by implementing traffic flow improvements such as use of police controllers for larger events and road widening at the intersection.

Agricultural associated nuisances may impact the project area since existing sugarcane fields are located near to the stadium complex. However, the proposed stadium expansion project should not incur impacts greater than those already experienced by the existing stadium facilities. The nearby agricultural area will also be greatly reduced upon completion of the Molokoa Subdivision Expansion and other planned government facilities which would provide some buffer area. Should impacts from agricultural-related nuisances be excessive, the County of Kauai will attempt to coordinate events with the Lihue Plantation Company (owner of the adjacent sugarcane fields).

Gaseous chlorine may be used for disinfection purposes at the proposed swimming pool. In order to prevent any accidental chlorine gas releases, precautionary measures shall be taken by trained maintenance personnel when the chlorine is transported, used or handled. A non-gaseous chlorine

system will also be considered for implementation at the proposed swimming pool.

3. Water Quality Impacts

No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project. Storm water runoff will be conveyed by the proposed and existing drainage systems following the approval of all necessary connection and discharge permits. Water borne particles will be minimized by ground cover.

The proposed project is also not expected to adversely affect the ground water system since cesspools or injection wells are not a part of this project.

4. Biological Impacts

The project area is not considered to be a sensitive wildlife habitat area, nor does the site contain any endangered species of plants or animals. The project site and surrounding area has been cultivated for sugar cane for the past decade. Therefore, no adverse long-term impacts are anticipated from the proposed action.

The proposed 90-foot high field lights for the baseball field could potentially affect the federally listed endangered dark-rumped petrol (*Pterodroma phaeopygia sandwichensis*), Newell's shearwater (*Puffinus newelli*) and the wedge tailed shearwater (*Puffinus pacificus*). Although these migratory bird species are not known to inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas have the potential to become disoriented by bright lights, causing them to fall to the ground. Thus, the proposed field lighting will be designed to provide sufficient cutoff distribution for glare control.

5. Noise Impacts

Long-term noise impacts associated with the new facility were investigated by Y. Ebisu & Associates, Ltd. According to this acoustic study, the proposed noise levels along the existing roadways that service the stadium traffic are expected increase insignificantly as a result of the proposed stadium expansion project. Instead, a significant increase in future traffic noise levels is expected from traffic that is not associated with the proposed project. As a result, traffic noise mitigation measures may be required in the future by others.

Special aircraft noise mitigation measures are not expected to be required as a part of the stadium expansion project since the proposed outdoor recreational activities are expected to be compatible with the existing and forecasted aircraft noise contours for Lihue Airport. In addition, special aircraft noise mitigation measures should not be necessary for the proposed gymnasium complex if uses are for recreational sports activities or events. However, if the gymnasium is planned to be used for other activities such as assemblies, concerts, etc., the use of closure and air-conditioning is recommended to minimize disruptions from aircraft noise. Details of the acoustic study have been included in APPENDIX A.

Additional noise is expected to be produced from the proposed tennis courts and swimming pool area. Should field lights be installed for the baseball field, additional noise may be generated if evening games are held. However, noise impacts from the proposed stadium expansion is not expected to be greater than the noise already produced from the existing stadium complex when large events are held.

6. Utilities

Utilities/Infrastructure supply, sewage disposal, drainage facilities and electrical demands were addressed in the "Facilities Planning Report" for the Vidinha Stadium Complex Expansion dated May 1995. Utilities/Infrastructure located outside of the project property boundaries are sufficient to accommodate the additional requirements.

7. Visual Impacts

The use of the proposed field lights during night games is not expected to have adverse impacts on the surrounding vicinity of the stadium complex. The nearest residential property is located approximately 1,200 feet from the project site. Sugar cane fields are located to the west of the project site, while the Kiele Golf Course is located to the east. The Lihue Industrial Park, Unit 1 lies immediately to the south, and the recently completed Veteran's Center is located to the north. Since the golf course, industrial park and Veteran's Center are typically in operation only during normal daytime working hours, these surrounding properties are not expected to be adversely impacted from the field lights to be used during night time games.

Since the existing baseball field is located approximately 2,200 feet from the south west end of the Lihue airport runway, the installation of the proposed field lights will be coordinated with the Federal Aviation Administration. The field lights will be in compliance with all applicable FAA requirements and the

appropriate permits will be acquired to ensure the 90-foot high poles will not adversely impact safe navigation for inbound or outbound flights.

The new field lights to be installed at the existing baseball field should not adversely affect motorists traveling along Kapule Highway since field lighting already exists for the adjacent football stadium. The field lighting system will be designed to provide the optimum illumination levels for the baseball field while minimizing adverse effects to motorists traveling along Kapule Highway through the use of glare controls.

8. Traffic

A Traffic Impact Assessment Report (TIAR) has been prepared for the proposed Vidinha Stadium Complex Expansion project (included in APPENDIX B). This study will help to serve as the basis for additional traffic studies for the overall master plan of the proposed Judiciary and police station facilities.

The proposed Vidinha Stadium Complex Expansion project will be coordinated with the respective agencies of the proposed County Bus Facility and the Kauai Police Station (County of Kauai), and the new Kauai Judiciary Complex (State of Hawaii) to be constructed nearby. The coordination and integration of all of these projects will help to ensure proper traffic circulation and adequate parking facilities.

The proposed Vidinha Stadium Complex Expansion project includes provisions for an additional parking facility where the existing soccer field is located. Overflow parking could also be provided at the parking areas for the proposed bus facility, police station and Judiciary building. A coordination of these parking areas is currently being developed by the County of Kauai's Department of Public Works.

VI. ALTERNATIVES TO THE PROPOSED ACTION

A. ALTERNATIVE SITE

The project site was obtained specifically to expand the stadium complex for recreational uses. The adjacent areas (per the Lihue-Hanamaulu Master Plan) will be developed for additional public facilities. These include the Veterans Center, State Judiciary Complex, Police Headquarters, and YMCA/Teen Center. The project will complement and support many activities generated by these public facilities. The project site is presently vacant and unused. Temporary use of the site for a fairground is under consideration. The site is too valuable to be reserved for intermittent uses. Selection of an alternate site is not feasible as this project is to expand the existing complex.

B. NO ACTION ALTERNATIVE

A no action alternative would not accomplish the objectives of the Division of Parks & Recreation of the Kauai Department of Public Works. These objectives include the offering of recreation activities when the need exists. The project will house facilities to support identified recreation/athletic needs: tennis courts, swimming pool and gymnasium.

VII. DETERMINATION

In accordance with the Hawaii Revised Statutes, Chapter 343, The Department of Public Works, County of Kauai anticipates that the proposed project will not have significant impacts to the environment. Consequently, this document constitutes an anticipated "Finding of No Significant Impact," (FONSI) and an Environmental Impact Statement will not be required for the proposed project.

VIII. REASONS SUPPORTING THE RECOMMENDATION

In considering the significance of potential environmental effects, the applicant has considered the sum of effects on the quality of the environment and evaluated the overall cumulative effects of the proposed action. The applicant has considered every phase of the proposed action, the expected consequences, both primary and secondary and the cumulative as well as the short- and long-term effects of the proposed action. As a result of these considerations, the applicant has determined that:

- ***The proposed action does not involve an irrevocable commitment or loss of or destruction of any natural cultural resource;***

There are no natural or cultural resources associated with the project site. According to the State Historic Preservation Division, the project area has previously been disturbed due to extensive agricultural uses for sugar cultivation. Thus, it would be highly unlikely that significant historic sites exist at the project site.

- ***The proposed action does not curtail the range of beneficial uses of the environment:***

The proposed project is consistent with the County's General Plan and the Department of Public Works goal to offer recreational activities not available through other avenues and would not curtail beneficial uses of the environment in the area. The proposed project will be compatible with the uses of the surrounding area.

- ***The proposed action is in concert with the state's long-term environmental policies, goals and guidelines as expressed in Chapter 343, HRS, and any revisions and amendments thereto, court decisions and executive orders:***

The proposed project is consistent with the State Land Use Plan which is in concert with all applicable policies, goals and guidelines. No long-term environmental conflicts are foreseen.

- ***The proposed action does not substantially affect the economic or social welfare of the community or state:***

The economic impact will be affected by the short-term, construction related activities. Upon completion of the project, economic opportunities may

increase due to sponsorship of athletic tournaments or trade shows that have statewide or national attention.

- ***The proposed action does not involve substantial secondary impacts, such as population changes or effects on public facilities:***

The proposed project will not result in an increase of population in the area as development is controlled by land use and general plan policies. Normal population growth should not be affected.

- ***The proposed action does not substantially affect public health:***

Construction activities will be regulated to minimize noise, dust and erosion concerns. Measures to assure the health and safety of users of the existing complex will be provided throughout all phases of construction.

- ***The proposed action does not involve a substantial degradation of environmental quality:***

The proposed project does not involve a substantial degradation of environmental quality since the existing physical aspects of the surrounding area will be preserved.

- ***The proposed action is individually limited and cumulatively, does not have a considerable effect upon the environment or involve a commitment for larger actions:***

The proposed project is part of the cumulative development of the Department of Public Works Vidinha Stadium Complex. Use is regulated by the County of Kauai, Division of Parks & Recreation. Approval of the project does not involve a County commitment for any larger action.

- ***The proposed action does not substantially affect rare, threatened or endangered species or habitats:***

There are no known rare, threatened or endangered species or habitats associated with the project site. The project area has previously been disturbed from extensive agricultural uses.

The proposed 90-foot high field lights for the baseball field could potentially affect the federally listed endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*), Newell's shearwater (*Puffinus newelli*) and the wedge tailed shearwater (*Puffinus pacificus*). Although these migratory bird

species are not known to inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas have the potential to become disoriented by bright lights, causing them to fall to the ground. Thus, the proposed field lighting will be designed to provide sufficient cutoff distribution for glare control.

- ***The proposed action does not detrimentally affect air or water quality or ambient noise levels:***

Development of the project site is not expected to substantially increase ambient noise levels since the proposed stadium expansion conforms to existing activities.

Short-term impacts on air and water quality, as well as noise, will occur during the construction period, but will be mitigated by normal construction practices and will be regulated by the project plans and specifications.

- ***The proposed action does not affect an environmentally sensitive area such as a flood plain, tsunami zone, erosion-prone area, geologically hazardous land, estuary or coastal waters.***

The proposed project is not adjacent to the shoreline and is located outside of the tsunami inundation line.

Flooding or erosion problems are not anticipated.

- ***The proposed action does not substantially affect scenic vistas and view planes identified in County or State plans or studies***

No scenic vistas or view planes should be affected by the proposed project. The new field lights for the baseball field is not expected to have adverse impacts on the surrounding vicinity of the stadium complex since the nearest residential property is located approximately 1,200 feet from the project site. In addition, sugar cane fields are located to the west of the project site, while the Kiele Golf Course is located to the east. The Lihue Industrial Park, Unit 1 lies immediately to the south, and the recently completed Veteran's Center is located to the north.

The installation of the proposed 90-foot high field lights will be coordinated with the Federal Aviation Administration. The field lights will be in compliance with all applicable FAA requirements and the appropriate permits will be acquired to ensure the 90-foot high poles will not adversely impact safe navigation for inbound or outbound flights. The field lights will also be designed to provide cutoff distribution for glare control.

- ***The proposed action does not require substantial energy consumption:***

No substantial amount of energy will be required for the proposed improvements to the Vidinha Stadium Complex expansion. Following construction, the lighting requirements for the new facilities (such as the baseball field) will have minimal effects on the stadium's overall energy consumption.

IX. AGENCIES CONSULTED DURING THE PREPARATION OF THE EA

The following agencies were consulted during the pre-assessment consultation period for the Draft EA. A copy of the responses received during this pre-assessment consultation period are included in Appendix C.

A. FEDERAL GOVERNMENT

U.S. Department of Agriculture, Resources Conservation Service
U.S. Department of the Interior, Fish and Wildlife Services
U.S. Department of Transportation, Federal Aviation Administration, Kauai Sector Field Office

B. STATE GOVERNMENT

Department of Accounting and General Services
Department of Agriculture
Department of Business, Economic Development and Tourism
Department of Hawaiian Home Lands
Department of Health, Environmental Management Division
Department of Land and Natural Resources
Department of Land and Natural Resources, State Historic Preservation Division
Department of Transportation
Department of Transportation - Highways Division, Kauai District
Department of Transportation - Airports Division, Lihue Airport
Office of State Planning

C. COUNTY OF KAUAI

Department of Planning
Department of Water

D. OTHER PARTIES

Kauai City Council - Special Advisory Committee on Parks
Kauai Electric
GTE Hawaiian Tel
Kauai Veterans Center
Kauai Lagoons Golf Club
Lihue Plantation Company, Ltd. (AMFAC Sugar Kauai)
Hawaii Thousand Friends
Sierra Club Hawaii Chapter

Lihue Industrial Association
The Honorable Jonathan Chun, State Senator, 7th District
The Honorable Ezra Kanofo, State Representative, 13th District

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REFERENCES

City and County of Honolulu, Department of Land Use, Land Use Ordinance Zoning Map No. 6, Ord. No.: 86-109, October 22, 1986.

Federal Emergency Management Agency, Flood Insurance Rate Map, City & County of Honolulu, Hawaii, Community Panel Numbers 150001 and 0115C, Revised September 28, 1990.

Hawaii Revised Statutes, Chapter 343, Environmental Impact Statements.

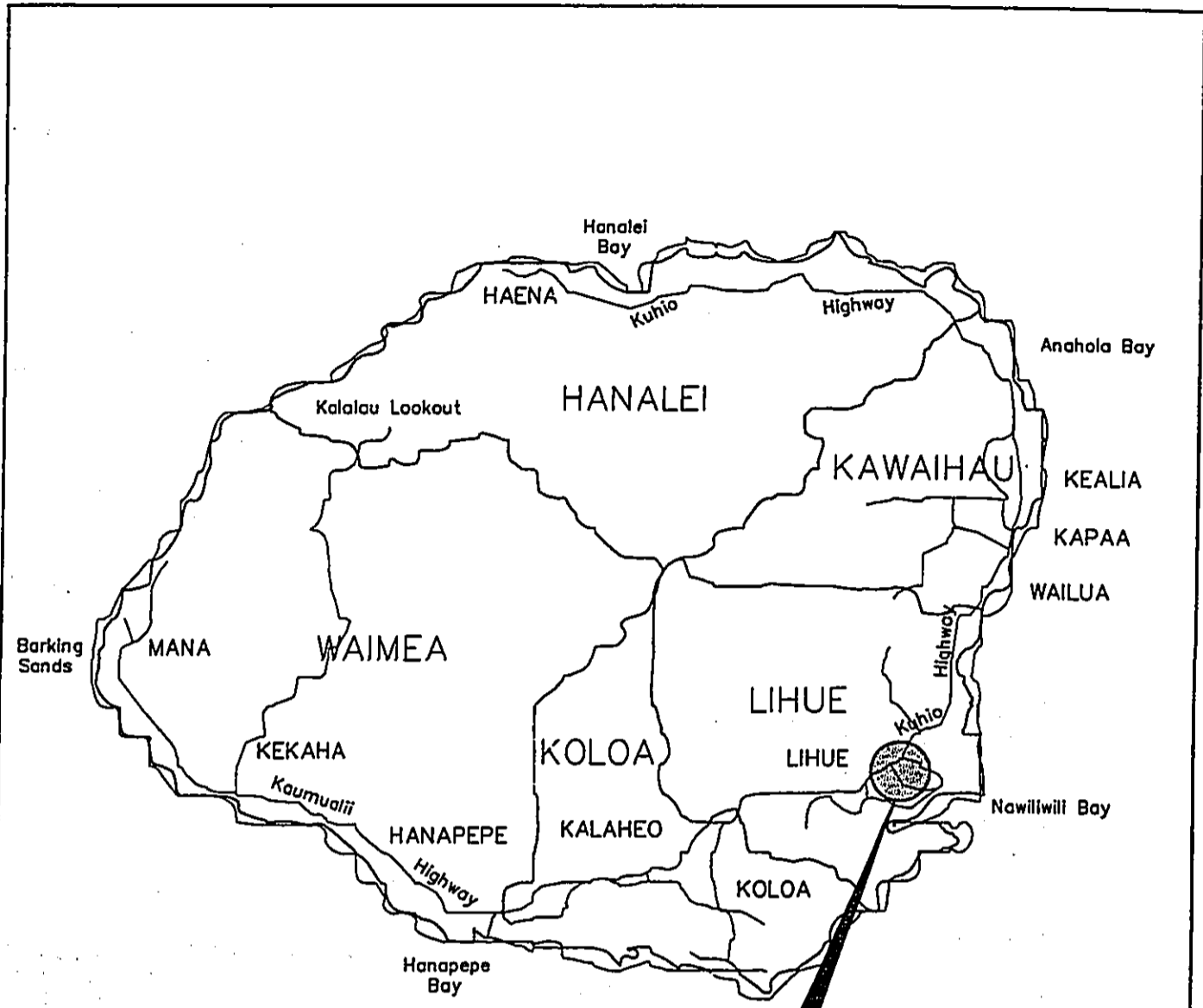
Hawaii Revised Statutes, Chapter 344, State Environmental Policy.

State of Hawaii, Department of Business, Economic Development and Tourism, Census Tracts, 1990.

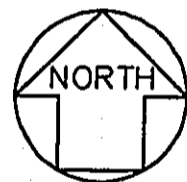
State of Hawaii, Office of Environmental Quality Control, "A Guidebook for the Hawaii State Environmental Review Process", July 1991.

U.S. Dept. of Agriculture Soil Conservation Service, Soil Survey of Island of Oahu, State of Hawaii, August 1972.

EXHIBITS



PROJECT LOCATION



ISLAND OF KAUAI

NOT TO SCALE

PM: STY
 OPR: MNN / LMUW
 REV: 09/18/98

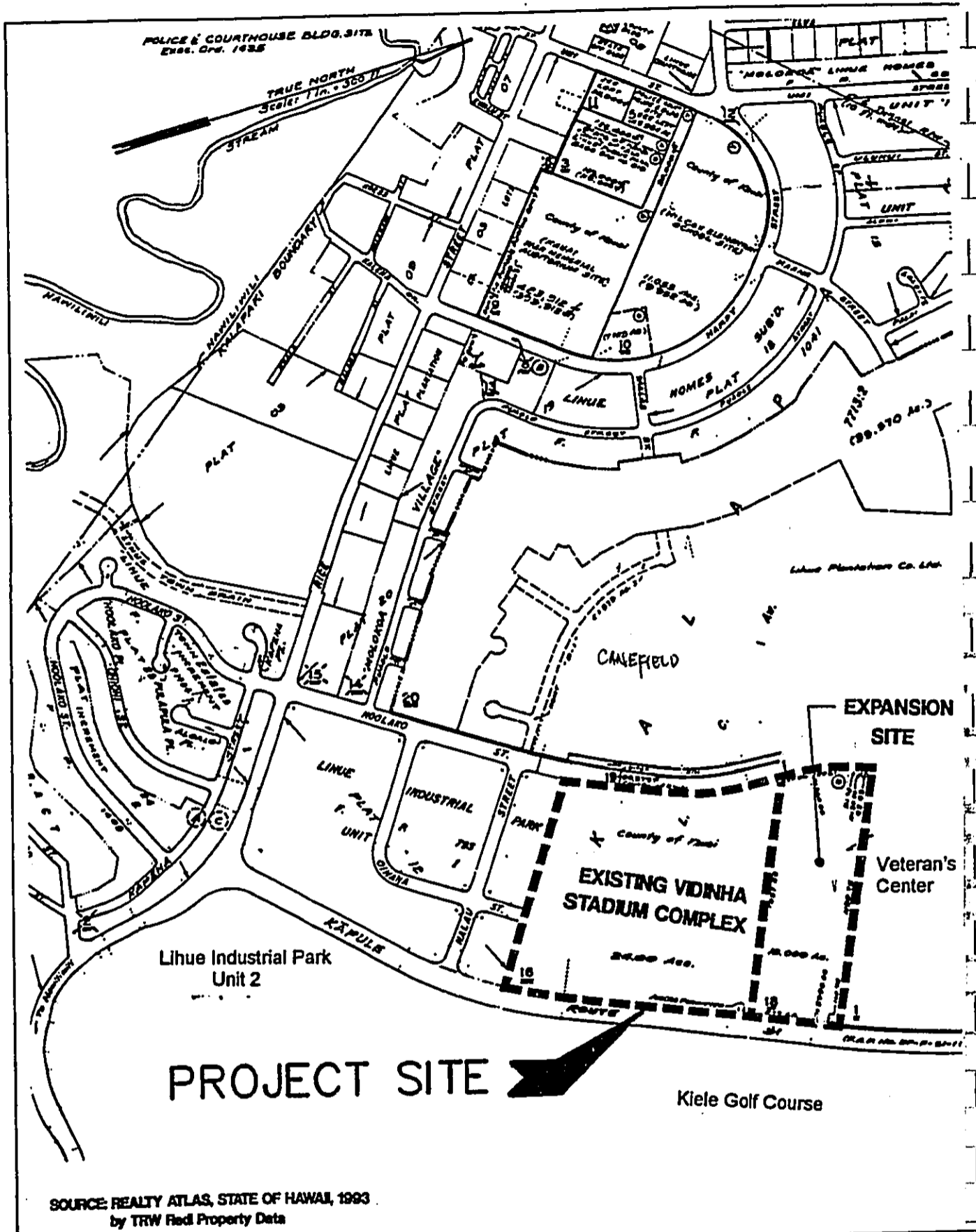
FILE: EX1
 SCALE: 1=1
 BEG:

VIDINHA STADIUM COMPLEX EXPANSION

LOCATION MAP

AKINAKA & ASSOCIATES, LTD.

EXHIBIT
1



PM: STY
 OPR: MNN / LMUW
 REV: 09/18/98

FILE: EX2
 SCALE: 1=1
 BEG:

SOURCE: REALTY ATLAS, STATE OF HAWAII, 1993
 by TRW Real Property Data

PROJECT SITE

EXHIBIT
2

VIDINHA STADIUM COMPLEX EXPANSION
 VICINITY MAP
 AKINAKA & ASSOCIATES, LTD.

EXISTING SUGAR CANE

FUTURE HOOLAKO ST. E

EXIST

(FUTURE E

EXISTIN
VETERAN
CENTER

VIDINHA STADIUM COMPLEX

HOOLAKO

STREET

EXISTING PARKING LOT

PROPOSED
TENNIS
COURTS

PROPOSED
SWIMMING
POOL

PROPOSED
GYMNASIUM

EXISTING LIHUE
INDUSTRIAL PARK

STREET

HANA
STREET

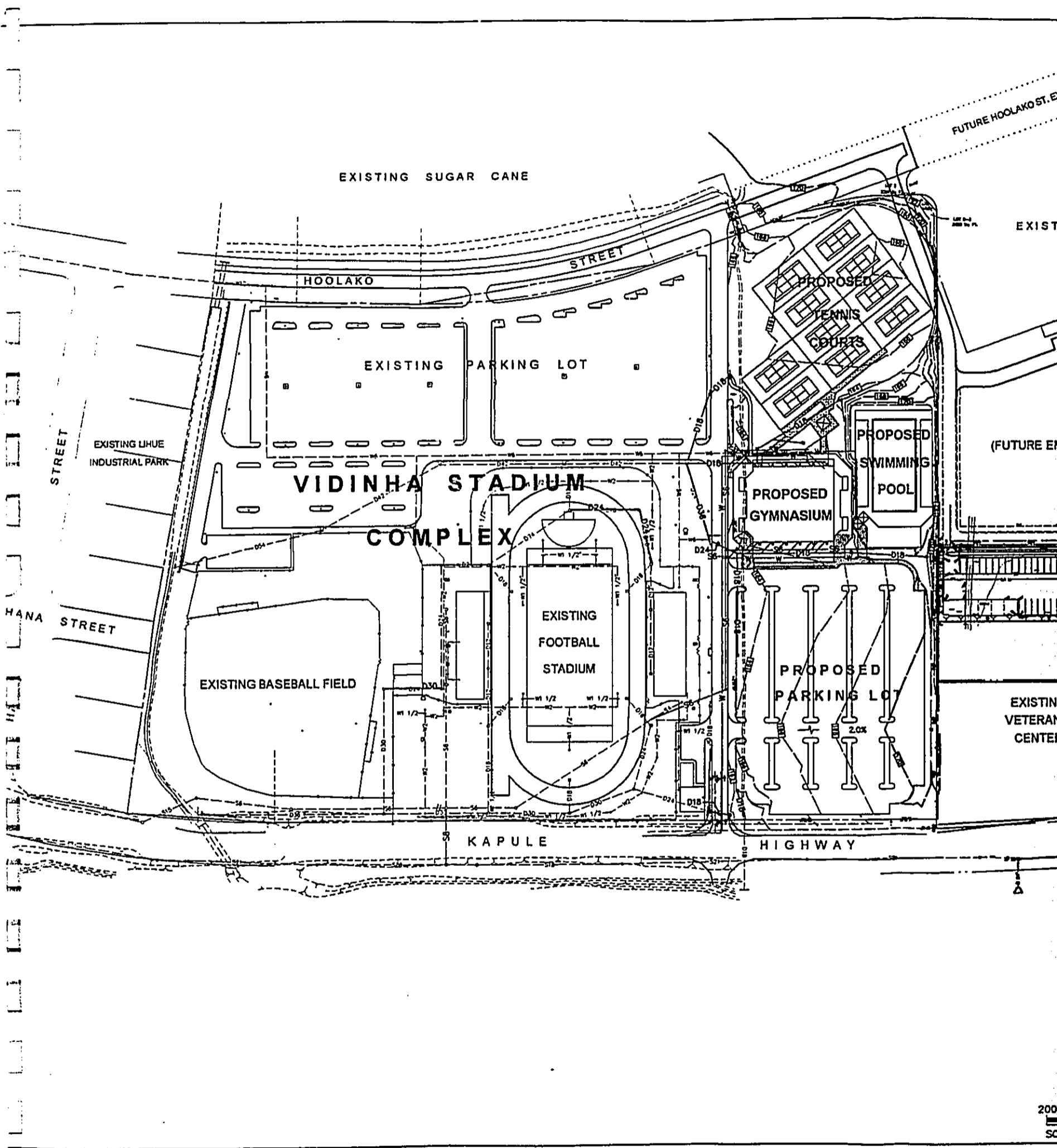
EXISTING BASEBALL FIELD

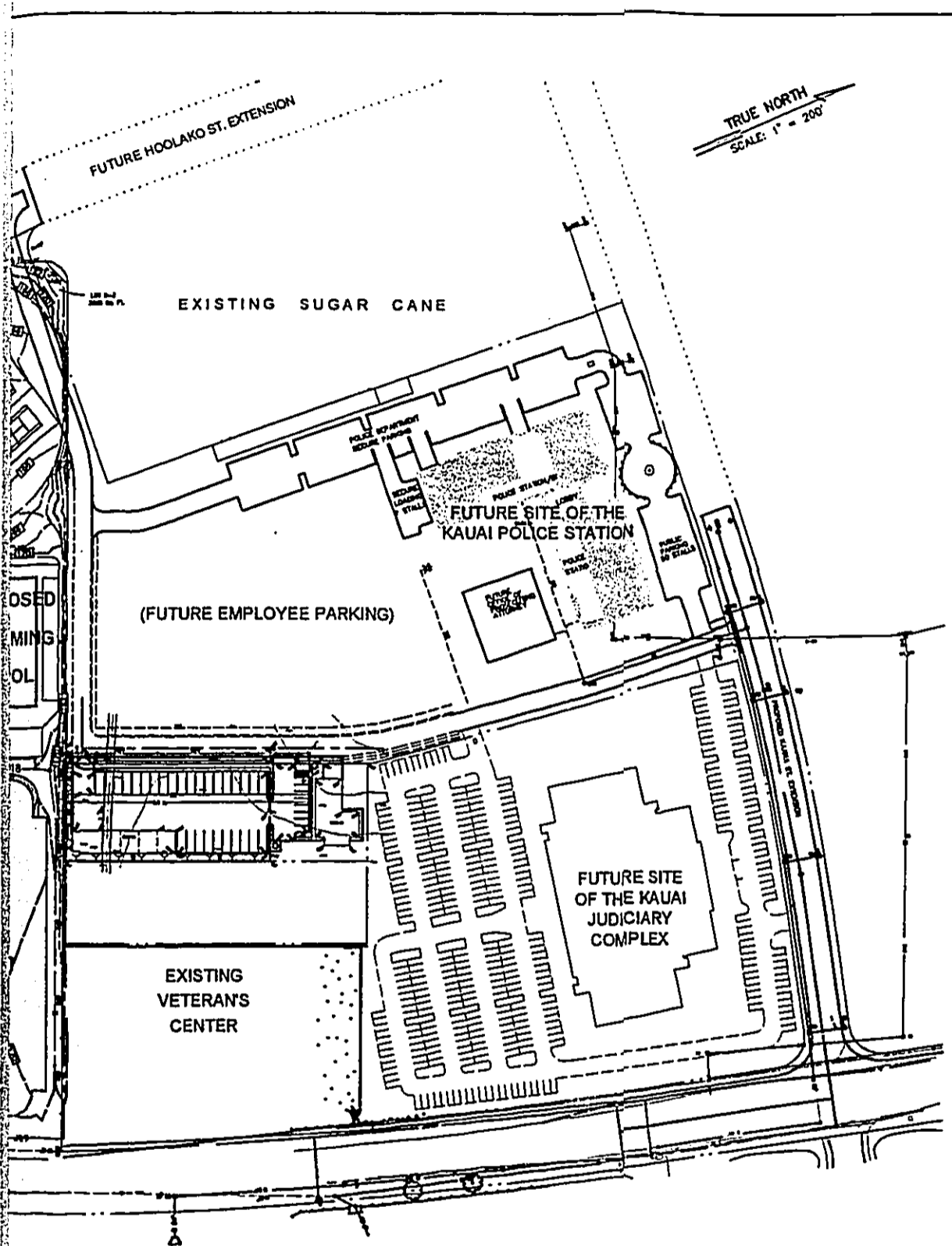
EXISTING
FOOTBALL
STADIUM

PROPOSED
PARKING LOT

KAPULE

HIGHWAY





200 0 200 400
 SCALE: 1" = 200'

AKINAKA & ASSOCIATES, LTD. CONSULTING ENGINEERS
VIDINHA STADIUM COMPLEX EXPANSION LIHUE, KAUAI, HAWAII TAX MAP KEY: 3-6-02: 15 & 18
SITE PLAN
MAY 1995 JANUARY 1998

EXHIBIT 3

APPENDIX A

**ACOUSTIC STUDY
FOR THE
VIDINHA STADIUM COMPLEX EXPANSION
LIHUE, KAUAI, HAWAII**

Prepared for:

AKINAKA & ASSOCIATES, LTD.

Prepared by:

**Y. EBISU & ASSOCIATES
1126 12th Avenue, Room 305
Honolulu, Hawaii 96816**

AUGUST 1995

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CHAPTER I. SUMMARY

The existing and future traffic noise levels in the vicinity of the proposed Vidinha Stadium Complex Expansion Project on the island of Kauai, Hawaii were evaluated for their potential impact on present and future noise sensitive areas. The future traffic noise levels along the primary access roadways to the project were calculated for the Year 2001.

Along the existing roadways which are expected to service the project traffic, noise levels are expected to increase by 0 to 0.5 Ldn between CY 1995 and CY 2001 as a result of project traffic. These increases in traffic noise levels associated with project traffic are insignificant. Traffic noise increases due to project traffic are predicted to be less than the increases caused by non-project traffic on all roadways, and are expected to range from 0.9 to 5.4 Ldn. These increases in traffic noise levels associated with non-project traffic are considered to be significant. With or without the project, future traffic noise levels are expected to increase significantly along the roadways servicing the project, and traffic noise mitigation measures may be required by others.

Based on previously published FAR Part 150 aircraft noise contours for Lihue Airport, the project site is located outside of the 65 Ldn noise contour. The FAR Part 150 noise contours for Lihue Airport are believed to be out of date. More recently developed airport noise contours for CY 1994 indicate that the 65 Ldn noise contour crosses the center of the project site. By CY 2010, however, the 65 Ldn contour is expected to move outside the recreational areas of the project site. The outdoor recreational activities (tennis and swimming) planned on the project site should be compatible with the existing and forecasted aircraft noise contours for Lihue Airport, and special aircraft noise mitigation measures should not be required for these activities.

The site of the planned gymnasium, is located on the existing

65 Ldn aircraft noise contour. By CY 2010, aircraft noise levels at the gymnasium site should decrease to the levels of approximately 61 to 62 Ldn. Special aircraft noise mitigation measures (other than the normal Public Address System) are not required for the planned gymnasium if it is used for recreational sports activities or events. However, if the gymnasium is planned to be used for assemblies, theatrical plays, or music concerts, use of closure and air conditioning is recommended to minimize the disruptions which can be caused by the aircraft noise events.

Unavoidable, but temporary, noise impacts may occur during the construction of the proposed project. Because construction activities are predicted to be audible at adjoining properties, the quality of the acoustic environment may be degraded to unacceptable levels during periods of construction. Mitigation measures to reduce construction noise to inaudible levels will not be practical in all cases. For this reason, the use of quiet equipment and construction curfew periods as required under the State Department of Health noise regulations are recommended to minimize construction noise impacts.

CHAPTER II. PURPOSE

The objectives of this study were to describe the existing and future noise environment in the environs of the proposed Vidinha Stadium Complex Expansion Project on the island of Kauai, Hawaii. Traffic noise level increases and impacts associated with the proposed development were to be determined within the project site as well as along the public roadways expected to service the project traffic. A specific objective was to determine future traffic noise level increases associated with both project and non-project traffic, and the potential noise impacts associated with these increases. Assessments of possible impacts from noise resulting from fixed and rotary wing aircraft operations at nearby Lihue Airport and from short term construction noise at the project site were also included in the noise study objectives. Recommendations for minimizing these noise impacts were also to be provided as required.

CHAPTER III. NOISE DESCRIPTORS AND THEIR RELATIONSHIP TO LAND USE COMPATIBILITY

The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (Ldn). This descriptor incorporates a 24-hour average of instantaneous A-Weighted Sound Levels as read on a standard Sound Level Meter. By definition, the minimum averaging period for the Ldn descriptor is 24 hours. Additionally, sound levels which occur during the nighttime hours of 10:00 PM to 7:00 AM are increased by 10 decibels (dB) prior to computing the 24-hour average by the Ldn descriptor. A more complete list of noise descriptors is provided in APPENDIX B to this report.

TABLE 1, derived from Reference 1, presents current federal noise standards and acceptability criteria for residential land uses. Land use compatibility guidelines for various levels of environmental noise as measured by the Ldn descriptor system are shown in FIGURE 1. As a general rule, noise levels of 55 Ldn or less occur in rural areas, or in areas which are removed from high volume roadways. In urbanized areas which are shielded from high volume streets, Ldn levels generally range from 55 to 65 Ldn, and are usually controlled by motor vehicle traffic noise. Residences which front major roadways are generally exposed to levels of 65 Ldn, and as high as 75 Ldn when the roadway is a high speed freeway. Due to noise shielding effects from intervening structures, interior lots are usually exposed to 3 to 10 Ldn lower noise levels than the front lots which are not shielded from the traffic noise.

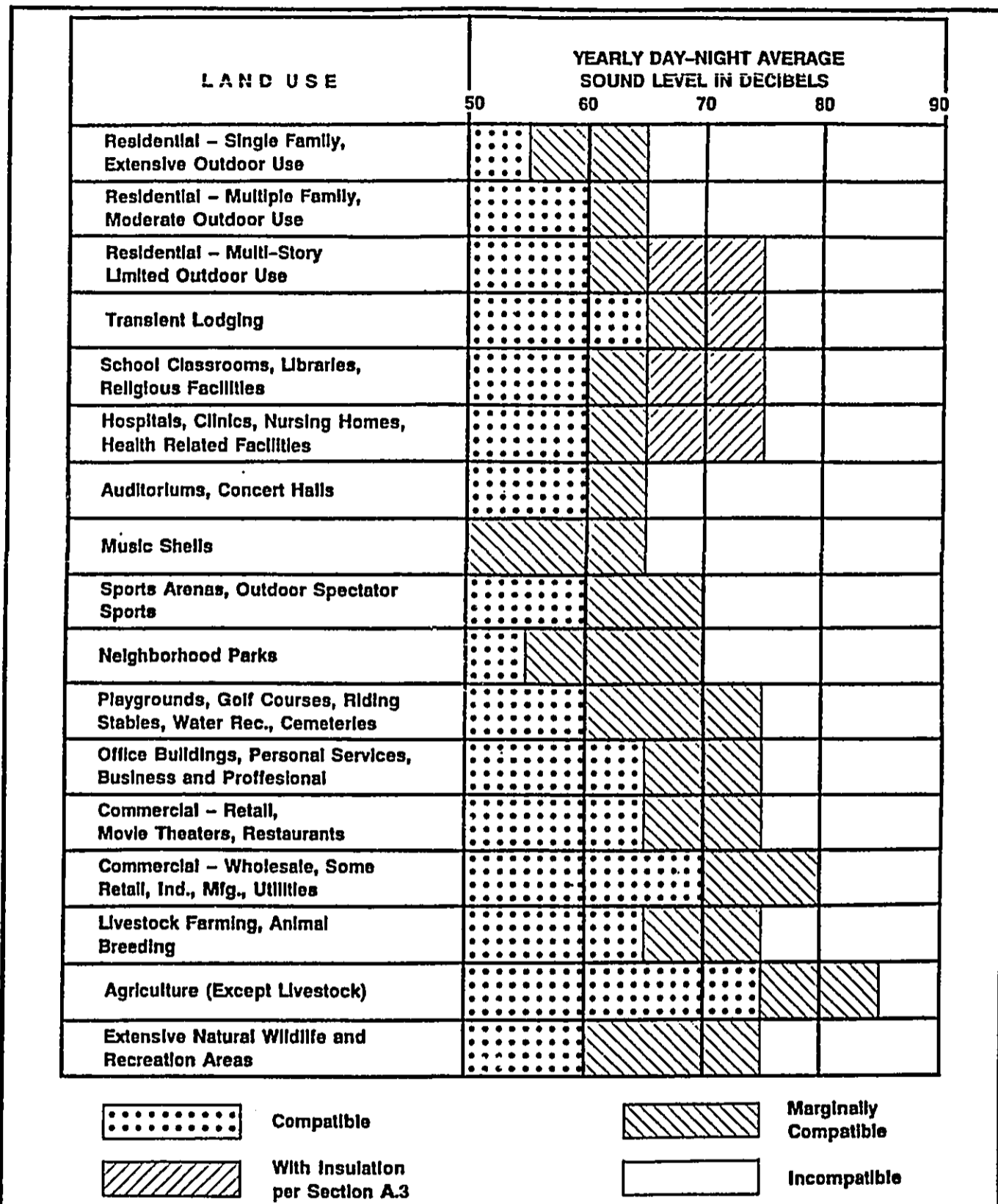
For the purposes of determining noise acceptability for funding assistance from federal agencies (FHA/HUD and VA), an exterior noise level of 65 Ldn or lower is considered acceptable. This standard is applied nationally (Reference 2), including Hawaii. Because of our open-living conditions, the predominant use of naturally ventilated dwellings, and the relatively low exterior-to-

TABLE 1
EXTERIOR NOISE EXPOSURE CLASSIFICATION
(RESIDENTIAL LAND USE)

NOISE EXPOSURE CLASS	DAY-NIGHT SOUND LEVEL	EQUIVALENT SOUND LEVEL	FEDERAL (1) STANDARD
Minimal Exposure	Not Exceeding 55 Ldn	Not Exceeding 55 Leq	Unconditionally Acceptable
Moderate Exposure	Above 55 Ldn But Not Above 65 Ldn	Above 55 Leq But Not Above 65 Leq	Acceptable(2)
Significant Exposure	Above 65 Ldn But Not Above 75 Ldn	Above 65 Leq But Not Above 75 Leq	Normally Unacceptable
Severe Exposure	Above 75 Ldn	Above 75 Leq	Unacceptable

Notes: (1) Federal Housing Administration, Veterans Administration, Department of Defense, and Department of Transportation.

(2) FHWA uses the Leq instead of the Ldn descriptor. For planning purposes, both are equivalent if: (a) heavy trucks do not exceed 10 percent of total traffic flow in vehicles per 24 hours, and (b) traffic between 10:00 PM and 7:00 AM does not exceed 15 percent of average daily traffic flow in vehicles per 24 hours. The noise mitigation threshold used by FHWA for residences is 67 Leq.



LAND USE COMPATIBILITY WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVEL AT A SITE FOR BUILDINGS AS COMMONLY CONSTRUCTED
 (Source: American National Standards Institute S12.40-1990)

FIGURE 1

interior sound attenuation afforded by these naturally ventilated structures, an exterior noise level of 65 Ldn does not eliminate all risks of noise impacts. Because of these factors, and as recommended in Reference 3, a lower level of 55 Ldn is considered as the "Unconditionally Acceptable" (or "Near-Zero Risk") level of exterior noise. However, after considering the cost and feasibility of applying the lower level of 55 Ldn, government agencies such as FHA/HUD and VA have selected 65 Ldn as a more appropriate regulatory standard.

For aircraft noise, the State Department of Transportation, Airports Division, has recommended that 60 Ldn be used as the common level for determining land use compatibility in respect to noise sensitive uses near its airports. TABLE 2 presents the current land use compatibility guidelines which have been recommended for use around the Hawaii State airports. It should be noted that for non-residential land uses, and specifically for recreational activities, aircraft noise levels greater than 60 Ldn and as high as 75 Ldn are considered to be compatible or marginally compatible in both FIGURE 1 and TABLE 2.

Table 2 State Department of Transportation Recommendations for Local Land Use Compatibility Expressed in Yearly Day-Night Average Sound Levels (Ldn).

TYPE OF LAND USE	Yearly Day-Night Average Sound Level					
	< 60	60-65	65-70	70-75	75-80	80-85
RESIDENTIAL:						
Low density residential, resorts, and hotels (outdoor facil.)	Y(a)	N(b)	N	N	N	N
Low density apartment with moderate outdoor use	Y	N(b)	N	N	N	N
High density apartment with limited outdoor use	Y	N(b)	N(b)	N	N	N
Transient lodgings with limited outdoor use	Y	N(b)	N(b)	N	N	N
PUBLIC USE:						
Schools, day-care centers, libraries, and churches	Y	N(c)	N(c)	N(c)	N	N
Hospitals, nursing homes, clinics, and health facilities	Y	Y(d)	Y(d)	Y(d)	N	N
Indoor auditoriums and concert halls	Y(c)	Y(c)	N	N	N	N
Government services and office buildings serving the public .	Y	Y	Y(d)	Y(d)	N	N
Transportation and Parking	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
COMMERCIAL AND GOVERNMENT USE:						
Offices - government, business, and professional	Y	Y	Y(d)	Y(d)	N	N
Wholesale and retail - bldg.mater., hardware, & heavy equip..	Y	Y	Y(d)	Y(d)	Y(d)	Y(d)
Airport businesses - car rental, lei stands, ticketing, etc..	Y	Y	Y(d)	Y(d)	N	N
Retail, restaurants, shopping centers, financial inst., etc..	Y	Y	Y(d)	Y(d)	N	N
Power plants, sewage treatment plants, and base yards	Y	Y	Y(d)	Y(d)	Y(d)	N
Studios without outdoor sets, broadcasting, prod. facilities.	Y(c)	Y(c)	N	N	N	N
MANUFACTURING, PRODUCTION AND STORAGE:						
Manufacturing, general	Y	Y	Y(d)	Y(d)	Y(d)	N
Photographic and optical	Y	Y	Y(d)	Y(d)	N	N
Agriculture (except livestock) and forestry	Y	Y(e)	Y(e)	Y(e)	Y(e)	Y(e)
Livestock farming and breeding	Y	Y(e)	Y(e)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
RECREATIONAL USE:						
Outdoor sports arenas and spectator sports	Y	Y(f)	Y(f)	N	N	N
Outdoor music shells, amphitheaters	Y(f)	N	N	N	N	N
Nature exhibits and zoos, neighborhood parks	Y	Y	Y	N	N	N
Amusements, beach parks, active playgrounds, etc.	Y	Y	Y	Y	N	N
Public golf courses, riding stables, cemeteries, gardens, etc.	Y	Y	N	N	N	N
Professional/resort sport facilities, media event fac., etc..	Y(f)	N	N	N	N	N
Extensive natural wildlife and recreation areas	Y(f)	N	N	N	N	N

Numbers in parentheses refer to notes.

KEY TO TABLE 2:

Y(Yes) = Land Use and related structures compatible without restrictions.
 N(No) = Land Use and related structures are not compatible and should be prohibited.

Table 2 (Continued). State Department of Transportation Recommendations for Local Land Use Compatibility Expressed in Yearly Day-Night Average Sound Levels (Ldn).

NOTES FOR TABLE 2:

(a) A noise level of 60 Ldn does not eliminate all risks of adverse noise impacts from aircraft noise. However, the 60 Ldn planning level has been selected by the State Airports Division as an appropriate compromise between the minimal risk level of 55 Ldn and the significant risk level of 65 Ldn.

(b) Where the community determines that these uses must be allowed, Noise Level Reduction (NLR) measures to achieve interior levels of 45 Ldn or less should be incorporated into building codes and be considered in individual approvals. Normal local construction employing natural ventilation can be expected to provide an average NLR of approximately 9 dB. Total closure plus air conditioning may be required to provide additional outdoor to indoor NLR, and will not eliminate outdoor noise problems.

(c) Because the Ldn noise descriptor system represents a 24-hour average of individual aircraft noise events, each of which can be unique in respect to amplitude, duration, and tonal content, the NLR requirements should be evaluated for the specific land use, interior acoustical requirements, and properties of the aircraft noise events. NLR requirements should not be based solely upon the exterior Ldn exposure level.

(d) Measures to achieve required NLR must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas, or where the normal noise level is low.

(e) Residential buildings require NLR. Residential buildings should not be located where noise is greater than 65 Ldn.

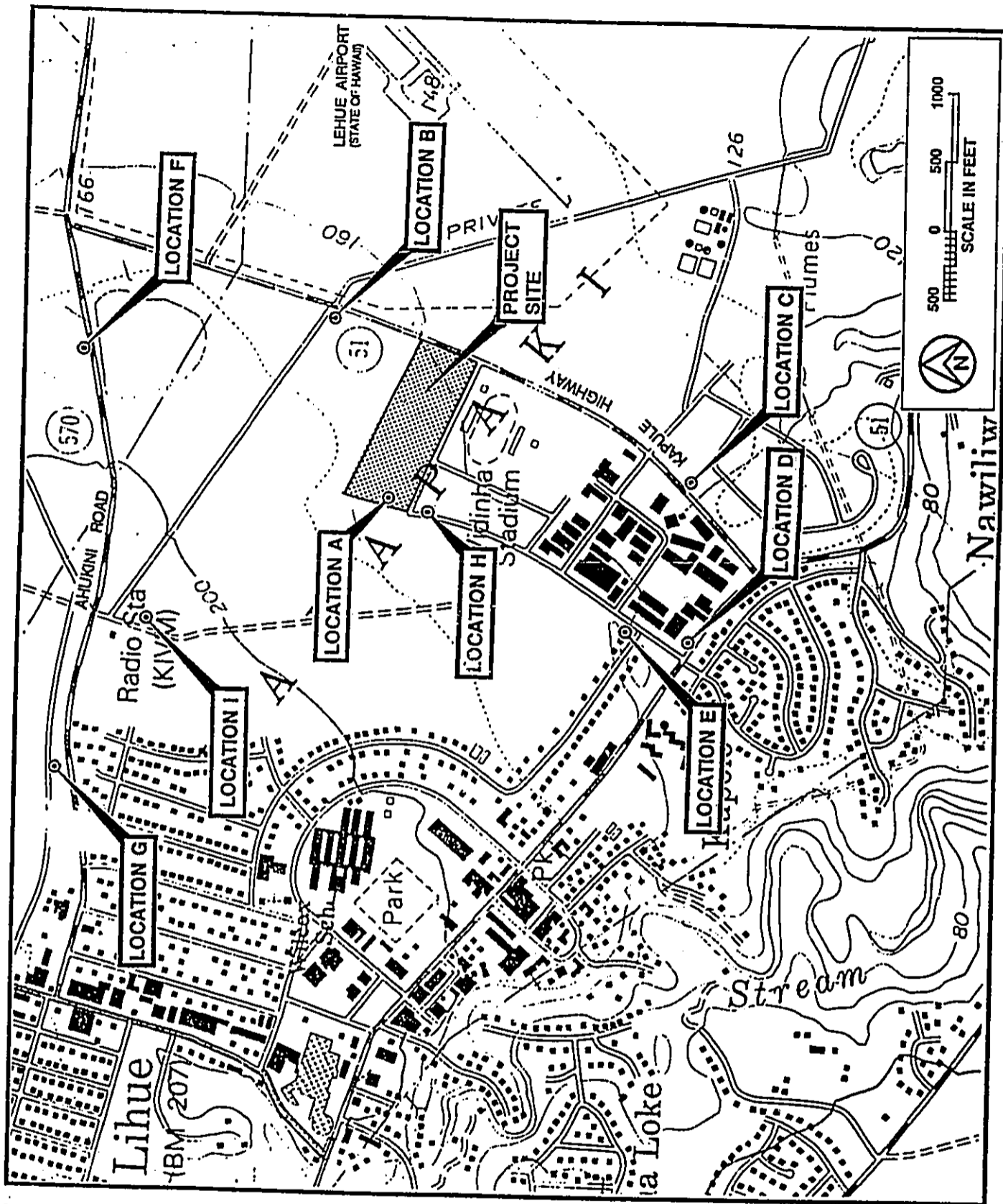
(f) Impact of amplitude, duration, frequency, and tonal content of aircraft noise events should be evaluated.

CHAPTER IV. GENERAL STUDY METHODOLOGY

Existing traffic and aircraft noise levels were measured at various locations in the project environs to provide a basis for developing the traffic noise contours along the roadways which will service the proposed development: Ahukini Road, Kapule Highway, Rice Street, and Hoolako Street; and for validating and updating the aircraft noise contours previously developed during the FAR Part 150 Noise Compatibility Program for Lihue Airport (Reference 4).

The locations of the measurement sites are shown in FIGURE 2. Noise measurements were performed during the latter parts of CY 1989 and 1990 (prior to Hurricane Iniki), during the months of May and August 1994, and during the month of May 1995. The traffic noise measurement results, and their comparisons with computer model predictions of existing traffic noise levels are summarized in TABLE 3. The results of the traffic noise measurements were compared with calculations of existing traffic noise levels to validate the computer model used.

Traffic noise calculations for the existing conditions as well as noise predictions for the future conditions with and without the project were performed using the Federal Highway Administration (FHWA) Noise Prediction Model (Reference 5). Traffic data entered into the noise prediction model were: hourly traffic volumes, average vehicle speeds, estimates of traffic mix, and soft ground propagation loss factor. The traffic study for the project (Reference 6) and Hawaii State Department of Transportation counts (Reference 7) were the primary sources of data inputs to the model. For existing and future traffic, it was assumed that the average noise levels, or $Leq(h)$, during the PM peak hour were 0.5 dB less than the 24-hour Ldn along each roadway segment. These assumptions were based on computations of both the hourly Leq and the 24-hour Ldn of traffic noise on Ahukini Road and Kapule Highway (see FIGURES 3 and 4).



LOCATIONS OF NOISE MEASUREMENT SITES

FIGURE 2

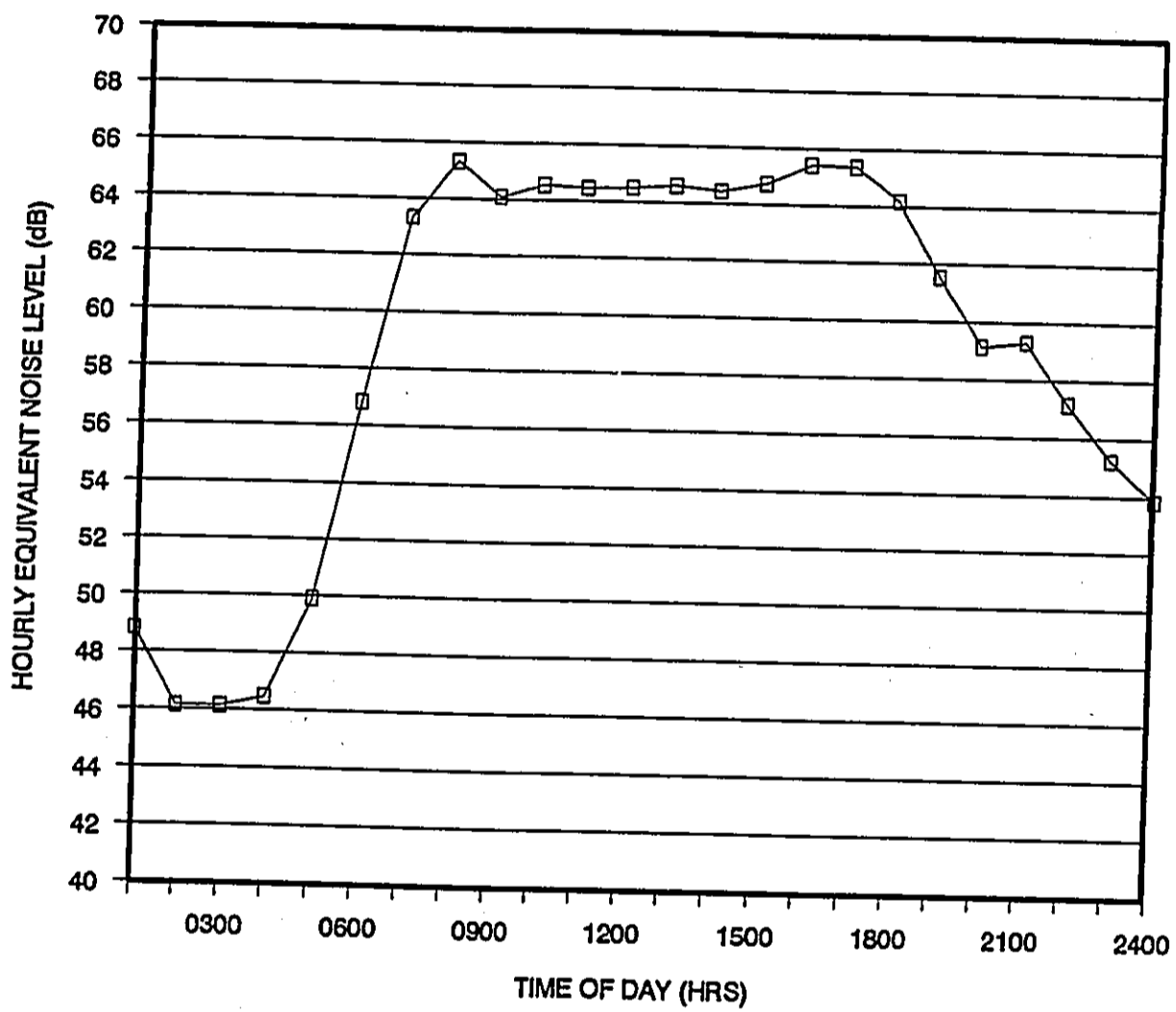
TABLE 3 (CONTINUED)

TRAFFIC NOISE MEASUREMENT RESULTS

LOCATION	Time of Day (HRS)	Ave. Speed (MPH)	--Hourly Traffic Volume--			Measured Leq (dB)	Predicted Leq (dB)
			AUTO	M.TRUCK	H.TRUCK		
D. 55 FT from the center -- line of Rice Street (8/10/94)	1600	35	1,019	5	7	62.4	62.2
	TO 1700						
E. 50 FT from the center -- line of Hoolako Street. (8/10/94)	1455	30	273	7	6	58.9	59.0
	TO 1555						
F. 50 FT from the center -- line of Ahukini Rd. (5/17/94)	1600	41	957	46	14	64.8	64.6
	TO 1700						
G. 50 FT from the center -- line of Ahukini Rd. at Palai SL (10/10/90)	1515	47	714	38	12	65.9	65.6
	TO 1615						

FIGURE 3

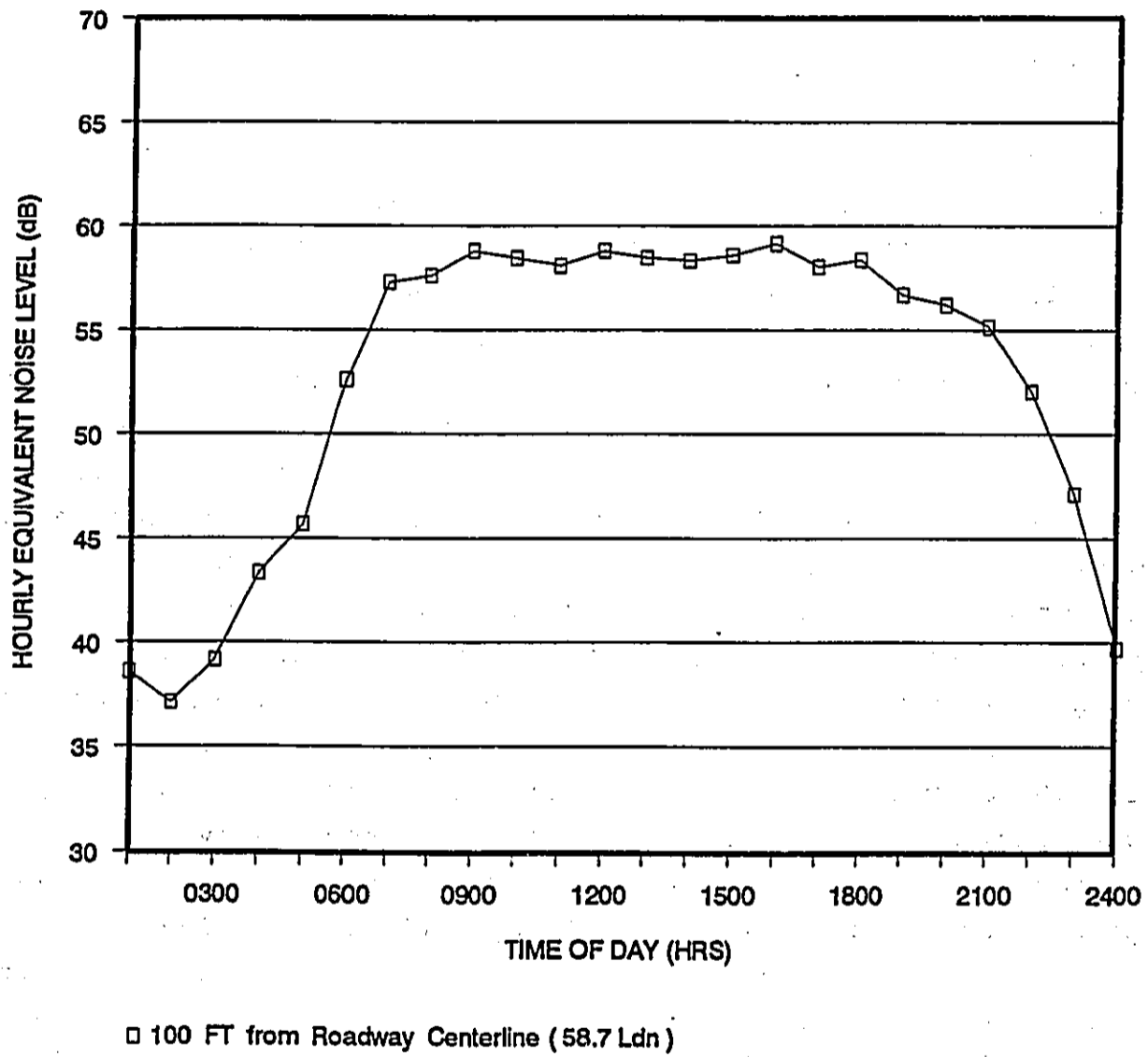
HOURLY VARIATIONS OF TRAFFIC NOISE AT 100 FT
SETBACK DISTANCE FROM THE CENTERLINE OF
KAPULE HIGHWAY AT AHUKINI ROAD
(NOVEMBER 3, 1993)



□ 100 FT from Roadway Centerline (64.7 Ldn)

FIGURE 4

HOURLY VARIATIONS OF TRAFFIC NOISE AT 100 FT
SETBACK DISTANCE FROM THE CENTERLINE OF
AHUKINI ROAD (EAST LEG) AT KAPULE HIGHWAY
(NOVEMBER 1, 1993)



Traffic noise calculations for both the existing and future conditions in the project environs were developed for ground level receptors without the benefit of shielding effects. Traffic assignments with and without the project were obtained from the project's traffic study (Reference 6). The forecasted increases in traffic noise levels over existing levels were calculated for both scenarios, and noise impact risks evaluated. The relative contributions of non-project and project related traffic to the total noise levels were also calculated, and an evaluation was made of possible traffic noise impacts resulting from the project.

Aircraft noise measurements were obtained at Sites "F," "H," and "I" (see FIGURE 2). Aircraft noise measurements were made to confirm that single event noise levels associated with fixed and rotary wing aircraft operations at Lihue Airport were consistent with the noise data and contours for Lihue Airport which were developed during the FAR Part 150 Program for CY 1995, as well as those aircraft noise contours developed this study. The recently released Federal Aviation Administration Integrated Noise Model, Version 4.11 (FAA INM) was used to develop aircraft and helicopter noise contours over the project site. The on-site measurements were also performed to confirm helicopter and light aircraft flight tracks in the project environs, which were originally reported in Reference 4. In addition, 1994 airline passenger and cargo flight schedules were also used to obtain the best estimate of the aircraft operations at Lihue Airport during CY 1994. The CY 1994 operations by jet and helicopter aircraft at Lihue Airport were estimated to be 55,480 and 51,504, respectively. The percentage of quieter Stage 3 jet aircraft was estimated to be 16 percent of the total jet aircraft operations in CY 1994.

The CY 2010 passenger and aircraft operations forecasts for Lihue Airport (Reference 8) were used to develop the future aircraft noise contours in the project environs. By CY 2010, it was assumed that the existing seaward airport Runway 35-17 would be extended by 3,500 FT to a total length of 10,000 FT as has been

proposed by the State Department of Transportation, Airports Division. The CY 2010 operations by jet and helicopter aircraft at Lihue Airport were estimated to be 60,730 and 80,000, respectively. The percentage of quieter Stage 3 jet aircraft was assumed to be 80 percent of the total jet aircraft operations by CY 2010.

Airport noise contours with and without the existing Interim Helicopter Facility were developed with the FAA INM for CY 2010. Potential impacts of fixed and rotary wing aircraft noise on the planned recreational uses on the project site were evaluated and mitigation measures recommended as appropriate.

CHAPTER V. EXISTING NOISE ENVIRONMENT

Traffic Noise. The existing traffic noise levels in the project environs vary from levels of approximately 69 Ldn along Kapule Highway, to less than 52 Ldn at the interior locations of the project site which are removed from the high volume roadways. Existing traffic noise levels along the Right-of-Way of Hoolako Street, Ahukini Road, and Rice Street are approximately 61 Ldn, 67 Ldn, and 68 Ldn respectively.

Calculations of existing traffic noise levels during the PM peak traffic hour are presented in TABLE 4A. The hourly Leq (or Equivalent Sound Level) contribution from each roadway section in the project environs was calculated for comparison with forecasted traffic noise levels with and without the project. The existing setback distances from the roadways' centerlines to their associated 60, 65, and 70 Ldn contours were also calculated as shown in TABLE 4B. The contour line setback distances do not take into account noise shielding effects or the additive contributions of traffic noise from intersecting street sections. Based on the results of TABLE 4B, it was concluded that the existing 65 Ldn traffic noise contour does not extend beyond the parking lot of the proposed Vidinha Stadium Complex Expansion Site.

Existing traffic noise levels at the interior (western) portion of the project site are low (less than 52 Ldn) due to the large setback distance from Kapule Highway and other high volume roadways which surround the project site. At these interior locations on the project site, aircraft noise is the dominant noise source. A discussion of existing aircraft noise levels on the project site is provided in the following section. Between aircraft noise events, background ambient noise levels drop to a range of 45 to 50 dB. During calm wind periods, background ambient noise levels decrease to levels less than 45 dB. The minimum background ambient noise levels at the interior locations are controlled by distant traffic and wind noise.

TABLE 4A

COMPARISONS OF CY 1995 AND CY 2001 TRAFFIC NOISE LEVELS
ALONG ROADWAYS IN THE PROJECT ENVIRONS
(PM PEAK HOUR AND 100 FT FROM ROADWAY CENTERLINES)

LOCATION	SPEED (MPH)	VPH	***** HOURLY LEQ IN dB *****			
			AUTO	MT	HT	ALL VEH
<u>EXISTING (CY 1995) PM PEAK HOUR:</u>						
Kapule Highway (South of Project)	55	1,189	61.9	59.6	61.1	65.8
Kapule Highway (North of Project)	55	1,237	63.7	61.4	62.8	67.5
Ahukini Rd. West of Kapule Hwy.	47	964	58.5	56.8	54.5	61.7
Ahukini Rd. East of Kapule Hwy.	47	818	57.8	56.1	53.8	61.0
Hoolako Street	30	295	50.0	45.1	51.6	54.4
Rice St. West of Hoolako St.	30	1,215	54.8	46.8	53.2	57.5
Rice St. West of Kapule Hwy.	35	1,086	56.8	48.5	54.4	59.2
Rice St. East of Kapule Hwy.	35	1,055	56.6	51.4	57.2	60.5
<u>FUTURE (CY 2001) PM PEAK HOUR WITH PROJECT:</u>						
Kapule Highway (South of Project)	55	1,601	63.2	60.9	62.3	67.0
Kapule Highway (North of Project)	55	1,670	65.0	62.7	64.1	68.8
Ahukini Rd. West of Kapule Hwy.	47	1,555	60.6	58.9	56.6	63.8
Ahukini Rd. East of Kapule Hwy.	47	1,012	58.7	57.1	54.7	61.9
Hoolako Street	30	1,145	55.9	51.0	57.4	60.3
Rice St. West of Hoolako St.	30	2,245	57.4	49.4	55.9	60.1
Rice St. West of Kapule Hwy.	35	1,577	58.4	50.2	56.0	60.8
Rice St. East of Kapule Hwy.	35	1,709	58.7	53.5	59.3	62.6

Note:

The following assumed traffic mixes of autos, medium trucks, and heavy vehicles were used for existing and future conditions:

- (a) Kapule Highway: 93.0% Autos; 4.5% Medium Trucks; and 2.5% Heavy Trucks and Buses.
- (b) Ahukini Road: 94.0% Autos; 5.0% Medium Trucks; and 1.0% Heavy Trucks and Buses.
- (c) Rice Street (West End): 98.0% Autos; 1.0% Medium Trucks; and 1.0% Heavy Trucks and Buses.
- (d) Rice Street (East End): 96.0% Autos; 2.0% Medium Trucks; and 2.0% Heavy Trucks and Buses.
- (e) Hoolako Street: 96.0% Autos; 2.0% Medium Trucks; and 2.0% Heavy Trucks and Buses.

TABLE 4B

EXISTING AND CY 2001 DISTANCES TO 60, 65, AND 70 Ldn CONTOURS

STREET SECTION	60 Ldn SETBACK (FT)		65 Ldn SETBACK (FT)		70 Ldn SETBACK (FT)	
	EXISTING	CY 2001	EXISTING	CY 2001	EXISTING	CY 2001
Kapule Highway (South of Project)	261	318	121	148	56	69
Kapule Highway (North of Project)	342	418	159	194	74	90
Ahukini Rd. West of Kapule Hwy.	140	192	65	89	30	41
Ahukini Rd. East of Kapule Hwy.	125	144	58	67	27	31
Hoolako Street	46	113	21	52	10	24
Rice St. West of Hoolako St.	73	110	34	51	16	24
Rice St. West of Kapule Hwy.	95	122	44	57	20	26
Rice St. East of Kapule Hwy.	117	161	54	75	25	35

Notes:

- (1) All setback distances are from the roadways' centerlines.
- (2) See TABLE 4A for traffic volume, speed, and mix assumptions.
- (3) Ldn assumed to be equal to PM Peak Hour Leq plus 0.5 dB along all roadways.
- (4) Setback distances are for unobstructed line-of-sight conditions.
- (5) Soft ground conditions assumed along all roadways.

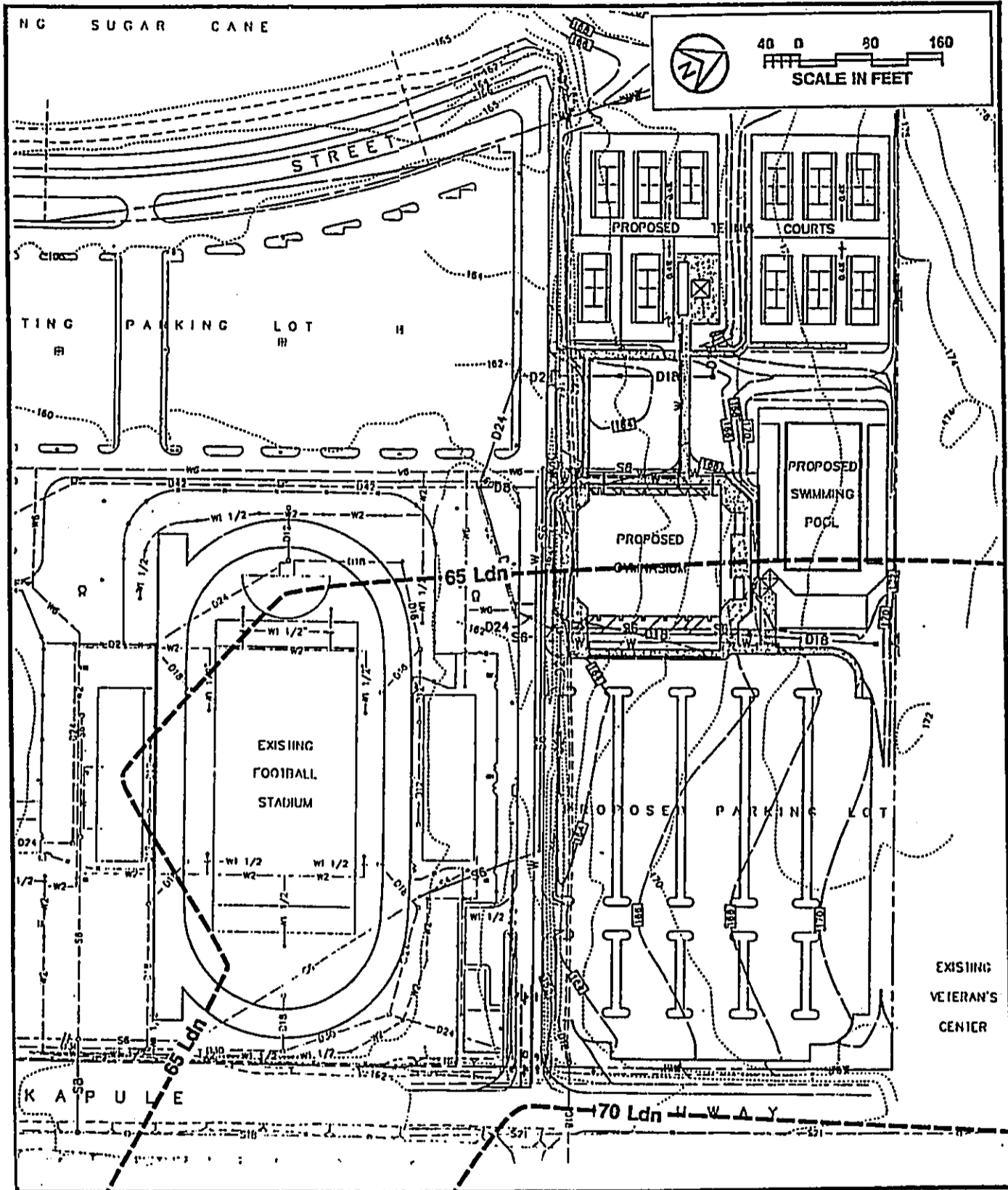
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Aircraft Noise. Aircraft noise sources in the project environs are associated with fixed and rotary wing aircraft operations at Lihue Airport. The noisier jet aircraft flight tracks remain east of the project site and are aligned with Lihue Airport's two runways (Runway 03-21 and Runway 35-17).

FIGURE 5 depicts the locations of the existing 65 and 60 Ldn aircraft noise contours for the CY 1994 period. These noise contours were developed using current airline flight schedules, and are approximately 3 to 4 Ldn larger than the CY 1995 noise contours (FIGURE 6) developed during the Lihue Airport FAR Part 150 effort (Reference 4). Although the CY 1994 noise contours of FIGURE 5 are slightly larger than those contained within the FAR Part 150 Study Report, existing aircraft noise levels do not exceed 70 Ldn at the planned recreational facilities on the project site, and as such, are considered to be in the "Acceptable" category for the planned land uses on the project site.

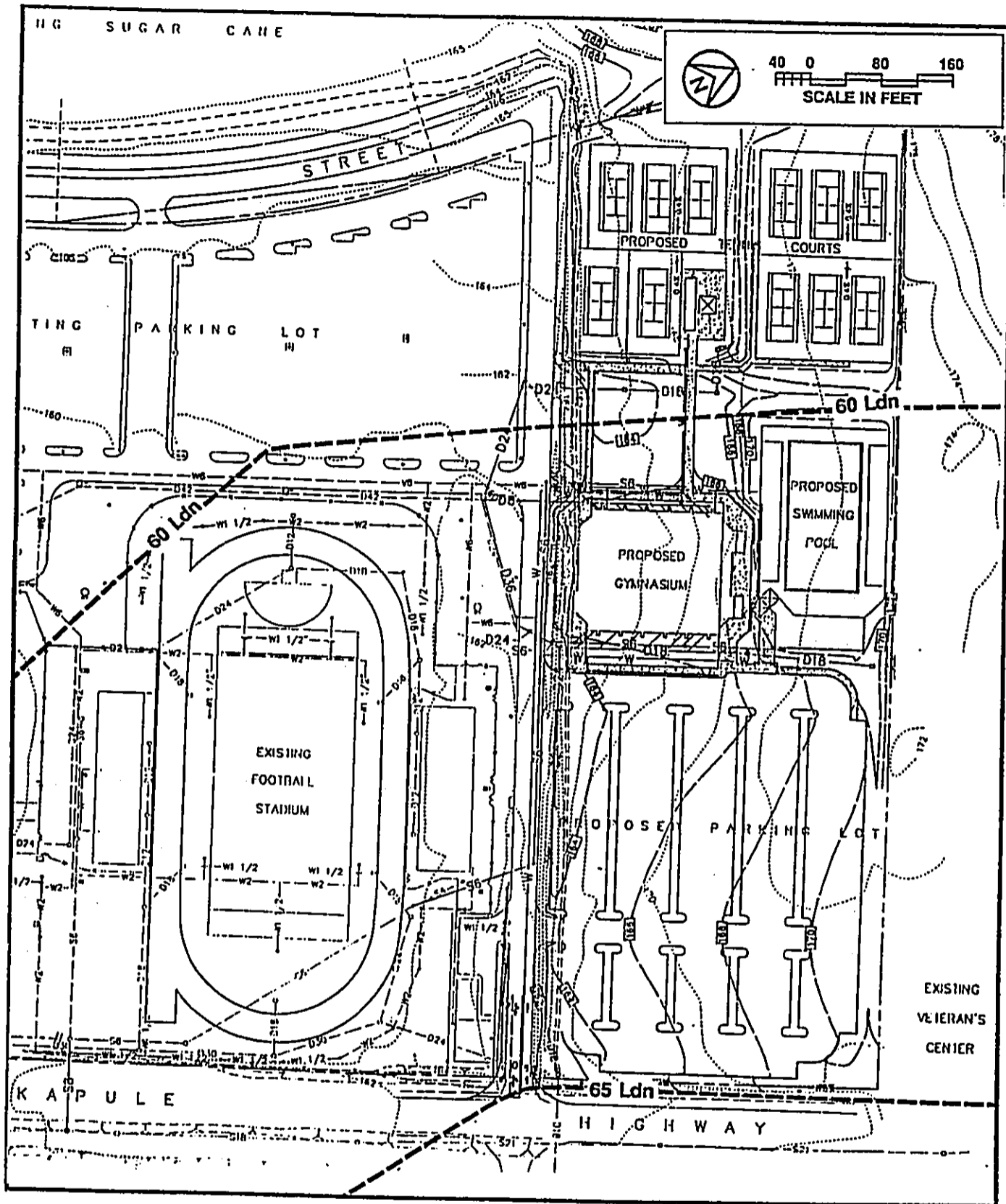
TABLES 5A thru 5C summarize the results of the aircraft noise measurements obtained at locations on or adjacent to the project site. These aircraft noise measurements were used to validate the FAA Integrated Noise Model, Version 4.11, which was used in this study to develop the aircraft noise contours for Lihue Airport. The comparisons between the measured and predicted aircraft noise levels are shown in the "Sound Exposure Level" column of the tables. The results of the comparisons indicated that the use of the FAA Model for developing the aircraft noise contours should provide reasonably accurate results.

It was concluded that the existing 70 Ldn aircraft noise contour does not enclose the planned recreational facilities of the project. Based on these updated aircraft noise contours in the project environs, it was concluded that special aircraft noise mitigation measures will not be required.



LOCATIONS OF CY 1994 AIRCRAFT NOISE CONTOURS OVER PROJECT SITE

FIGURE 5



LOCATIONS OF CY 1995 AIRCRAFT NOISE CONTOURS FROM FAR PART 150 REPORT

FIGURE 6

TABLE 5A

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE 'F'

<u>AIRCRAFT TYPE</u>	<u>MAXIMUM SOUND LEVELS</u> <u>L_{max} (in dB)</u>	<u>SOUND EXPOSURE LEVELS</u> <u>L_{se} (in dB)</u>
B-737(200)	74.3; 78.4; 77.7; 80.7; 77.8; 73.6; 76.5; 81.1 (AVG.=77.5)	83.5; 83.8; 87.6; 86.5; 85.0; 83.7; 82.0; 89.1 (AVG.=85.8) (PRED.=86.3)
B-737(300)	69.9; 69.1 (AVG.=69.5)	76.0; 76.5 (AVG.=76.3) (PRED.=72.3)
DC-9(50)	81.5; 79.4; 81.1; 81.9; 82.4; 83.8; 80.1 (AVG.=81.5)	89.2; 87.5; 90.0; 89.8; 87.9; 90.1; 88.6 (AVG.=89.1) (PRED.=89.7)
HELICOPTER	67.3; 73.1; 78.7; 67.8; 68.4; 68.0; 67.9; 75.8; 70.3; 69.1; 72.0; 67.7; 68.0; 68.4; 68.5; 69.5; 65.9; 72.3; 66.4; 66.7; 67.5; 65.4; 69.8; 68.2; 68.0; 66.1; 68.4; 67.6; 68.4; 70.1; 66.6; 71.3; 69.0; 66.6; 70.9; 69.7; 66.0; 64.4; 67.7; 72.8; 67.9; 72.9; 71.4; 67.7; 65.1; 69.0 (AVG.=68.9)	74.7; 77.4; 73.9; 71.4; 74.3; 75.6; 74.1; 83.7; 72.5; 74.2; 76.8; 72.6; 74.2; 73.1; 72.7; 71.4; 73.0; 77.6; 71.9; 72.9; 71.7; 74.5; 76.7; 71.8; 76.9; 74.7; 71.1; 69.3; 72.7; 72.7; 71.0; 75.3; 73.4; 75.0; 76.1; 75.8; 74.8; 72.6; 71.8; 76.7; 70.5; 74.9; 76.2; 74.8; 71.8; 75.6 (AVG.=75.0) (PRED.=76.1)

TABLE 5B

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE "H"

<u>AIRCRAFT TYPE</u>	<u>L_{max} (in dB)</u>	<u>L_{se} (in dB)</u>
B-737(200)	83.2; 79.8; 82.2; 89.1; 85.9; 87.3; 89.4; 87.5 (AVG.=85.6)	91.5; 88.9; 89.2; 93.2; 95.2; 93.5; 95.1; 96.1 (AVG.=93.5) (PRED.=92.2)
B-737(300)	70.8	79.2 (PRED.=78.5)
DC-9(50)	93.0; 84.9; 84.4; 89.3; 90.3; 86.0 (AVG.=88.0)	97.5; 89.8; 94.3; 97.2; 97.5; 96.2 (AVG.=96.1) (PRED.=95.0)

TABLE 5C

SUMMARY OF AIRCRAFT NOISE MEASUREMENTS
AT SITE 'I'

<u>AIRCRAFT TYPE</u>	<u>MAXIMUM SOUND LEVELS</u> L _{max} (in dB)	<u>SOUND EXPOSURE LEVELS</u> L _{se} (in dB)
B-737(200)	77.1; 78.7; 74.7; 72.0; 75.5; 74.7; 77.9; 78.2 (AVG.=76.1)	84.3; 84.5; 81.9; 81.1; 84.8; 82.4; 84.2; 86.7 (AVG.=84.1) (PRED.=86.4)
B-737(300)	66.2	74.5 (PRED.=72.7)
DC-9(50)	83.5; 78.0; 78.0; 74.3; 80.9; 77.3 (AVG.=78.7)	90.3; 85.1; 86.5; 85.2; 86.3; 85.7 (AVG.=87.0) (PRED.=89.4)

11-11-77 10:00 AM 11-11-77 10:00 AM 11-11-77 10:00 AM 11-11-77 10:00 AM

CHAPTER VI. FUTURE NOISE ENVIRONMENT

Traffic Noise. Predictions of future traffic noise levels were made using the traffic volume assignments of Reference 6 for CY 2001 with and without the proposed project. The future assignments of project plus non-project traffic on the roadway sections which would service the project are shown in TABLE 4A for the PM peak hour of traffic. As indicated in TABLE 4A, by CY 2001 and following complete project build-out, traffic noise levels on the roadways servicing the project are predicted to increase by 0.9 to 5.9 Ldn. This range of increase in traffic noise levels is considered to be significant, and reflects the large growth expected in non-project traffic in the project environs by CY 2001.

TABLE 4B summarizes the predicted increases in the future setback distances to the 60, 65, and 70 Ldn traffic noise contour lines along the roadways in the project environs and attributable to both project plus non-project traffic in CY 2001. The setback distances in TABLE 4B do not include the beneficial effects of noise shielding from terrain features and highway cuts, or the detrimental effects of additive contributions of noise from intersecting streets. As indicated in TABLE 4B, the setback distances to the 65 Ldn contour are predicted to range from 67 to 89 FT from the centerline of Ahukini Road following project build-out in CY 2001. Along Kapule Highway, setback distances to the 65 Ldn contour are expected to range from 148 to 194 FT. Setback distances to the 65 Ldn contour are expected to range from 51 to 75 FT from the centerlines of Hoolako Street and Rice Street.

TABLE 6 presents the predicted increases in traffic noise levels associated with non-project and project traffic by CY 2001, and as measured by the Ldn descriptor system. As indicated in TABLE 6, non-project traffic is expected to cause the larger increases in traffic noise along the roadways servicing the project. The largest increases in traffic noise levels attributable to project traffic are expected to occur along Hoolako Street, but

TABLE 6
CALCULATIONS OF PROJECT AND NON-PROJECT
TRAFFIC NOISE CONTRIBUTIONS (CY 2001)

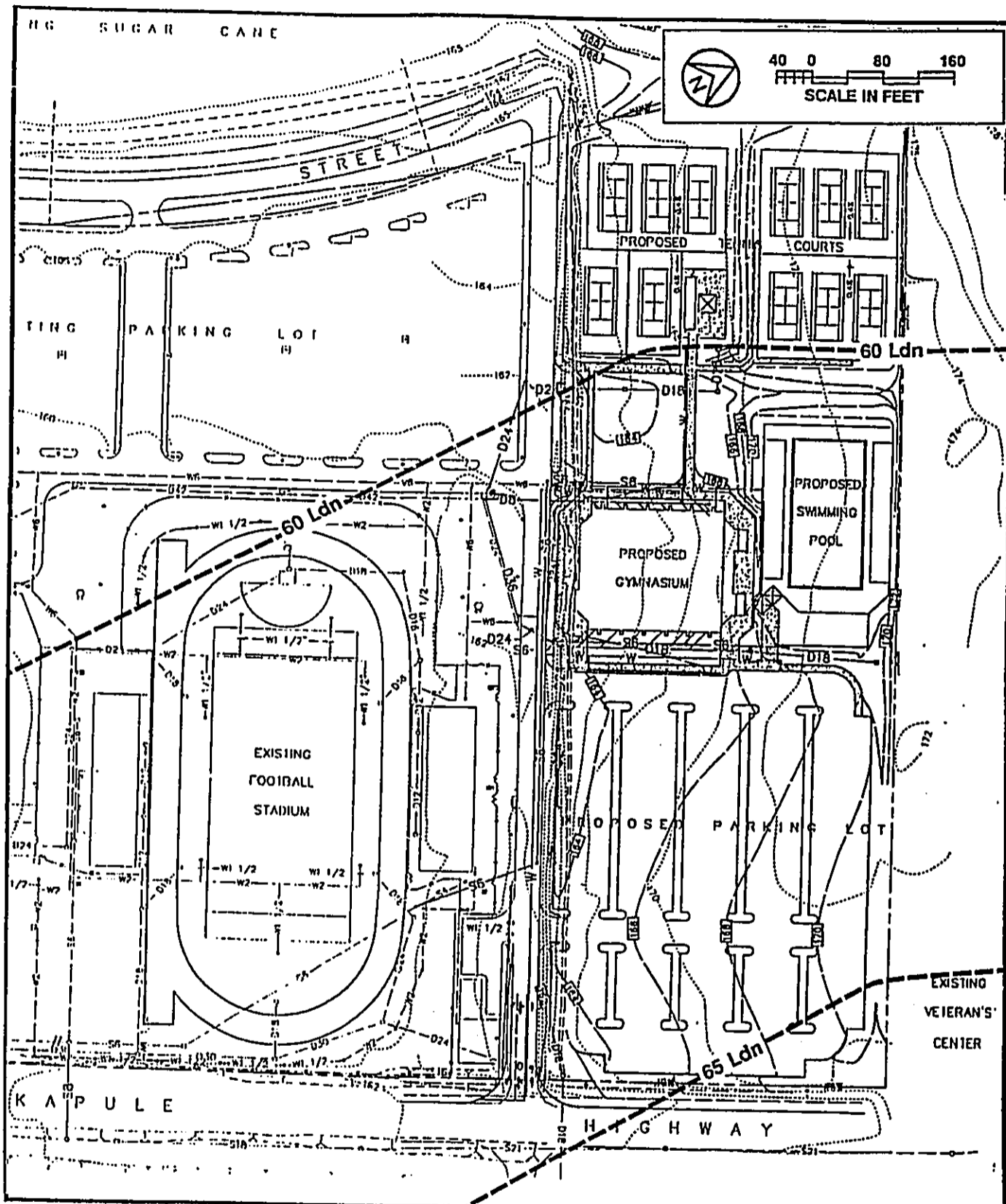
<u>STREET SECTION</u>	<u>NOISE LEVEL INCREASE (Ldn) DUE TO NON-PROJECT TRAFFIC</u>	<u>DUE TO PROJECT TRAFFIC</u>
Kapule Highway (South of Project)	1.3	0.0
Kapule Highway (North of Project)	1.2	0.1
Ahukini Rd. West of Kapule Hwy.	2.1	0.0
Ahukini Rd. East of Kapule Hwy.	0.9	0.0
Hoolako Street	5.4	0.5
Rice St. West of Hoolako St.	2.5	0.1
Rice St. West of Kapule Hwy.	1.5	0.1
Rice St. East of Kapule Hwy.	2.0	0.1

are predicted to be insignificant at 0.5 Ldn.

Aircraft Noise. The aircraft noise contours in the project environs for the CY 2010 period were developed using the most recently available State DOT forecasts for Lihue Airport (Reference 8). The proposed extension of Runway 35-17 from 6,500 to 10,000 FT length was included in the modeling of the CY 2010 noise contours for Lihue Airport. It should be noted that the State DOT operations forecasts assumed that three interisland air carriers would be flying to Lihue Airport by CY 2010. It was assumed that only 80 percent of the interisland B-737 and DC-9 fleet would be quieted from Stage 2 to Stage 3 noise levels by CY 2010. The quieter Stage 3 aircraft, which are approximately 10 to 15 dB quieter than the older Stage 2 aircraft, and could include brand new aircraft such as the B-737(300) and B-737(400), or older aircraft which are outfitted with hush kits or which are reengined with high bypass ratio engines.

The relationship of the CY 2010 aircraft noise contours over the project site are shown in FIGURE 7. The CY 2010 contours developed during the current study indicate reduced aircraft noise levels in the project area primarily due to the expected conversion of noisier Stage 2 interisland jet aircraft to the quieter Stage 3 aircraft.

The available CY 2010 forecasts for aircraft noise over the project site indicate that the 65 Ldn contour will shrink slightly and move off most of the project site toward Kapule Highway (see FIGURE 7). The planned recreational uses on the project site are not considered to be noise sensitive, and have been located outside the 70 Ldn aircraft noise contour for CY 2010. As such, special aircraft noise mitigation measures should not be required.



**LOCATIONS OF CY 2010 AIRCRAFT NOISE CONTOURS
OVER PROJECT SITE**

**FIGURE
7**

CHAPTER VII. DISCUSSION OF PROJECT RELATED NOISE IMPACTS
AND POSSIBLE NOISE MITIGATION MEASURES

Traffic Noise Impacts. The increases in traffic noise levels attributable to the project from the present to CY 2001 are predicted to range from zero to 0.5 Ldn along the roadways in the immediate vicinity of the project. Traffic noise level increases in this range are considered to be insignificant and will be difficult to detect, particularly if the increase occurs over a long period of time. Traffic noise level increases along Rice Street, Hoolako Street, Ahukini Road, and Kapule Highway are expected to be insignificant, with essentially no traffic noise impacts expected from the proposed project.

Aircraft Noise Impacts. The siting of future recreational facilities outside the existing and forecasted 70 Ldn airport noise contour conforms to the land use compatibility recommendations of the State DOT, Airports Division as well as to Lihue Airport's FAR Part 150 Noise Compatibility Plan. Because the existing 65 Ldn aircraft noise contour does cross through the proposed gymnasium site, the use of the gymnasium for noise sensitive uses other than recreational activities or sport events is not recommended. If the gymnasium is anticipated to be regularly used for noise sensitive activities such as public assemblies, theater presentation, or music concerts, closure and air conditioning of the facility is recommended.

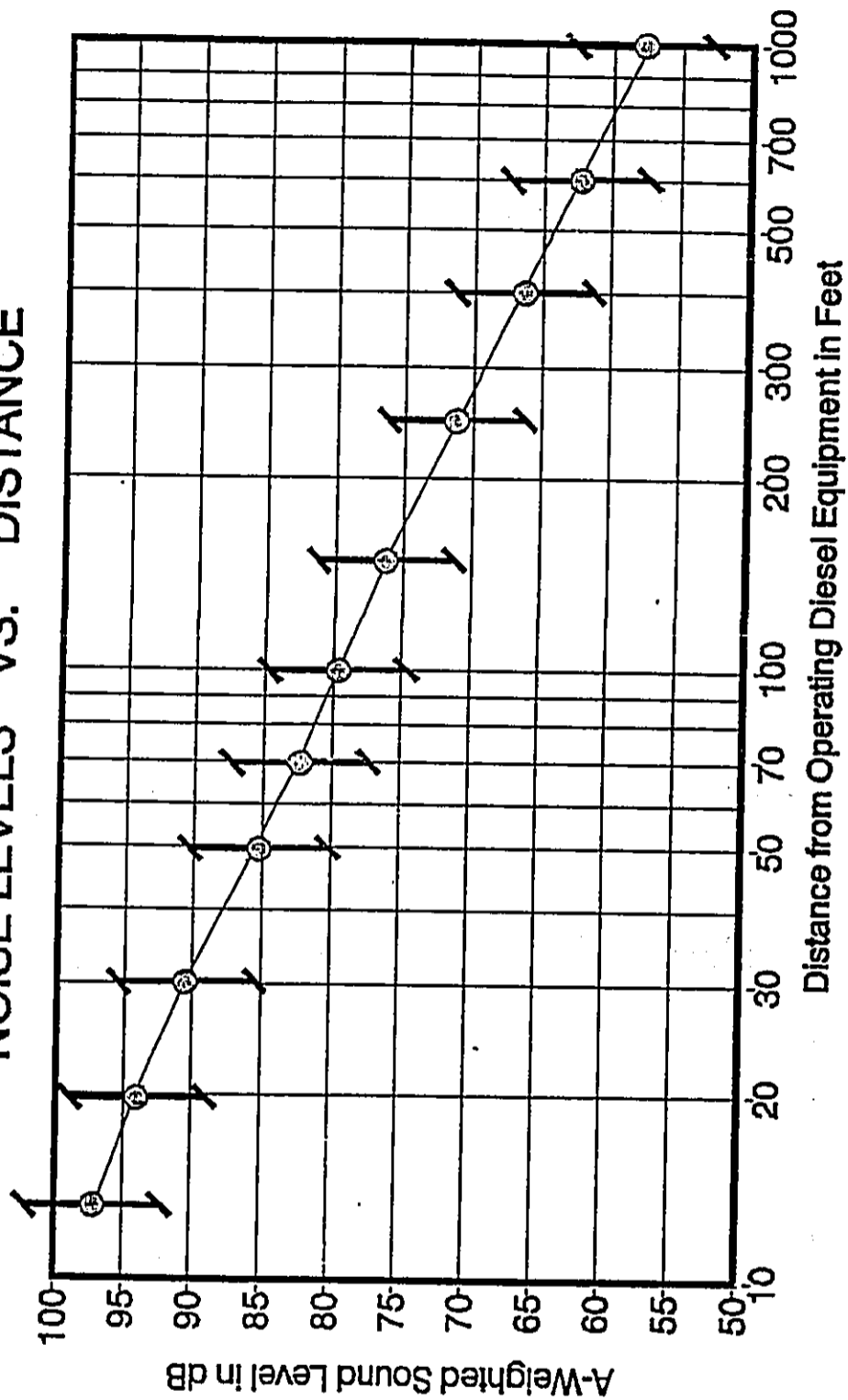
The siting of the tennis courts, swimming pool, and parking lot within the 60 Ldn contour is acceptable, since these uses are not considered to be noise sensitive. The siting of these types of uses within the high noise areas around an airport is usually encouraged, since it tends to preclude future development of noise sensitive uses on the same lands.

Construction Noise. Audible construction noise will probably

be unavoidable during the entire project construction period. During periods of construction, it is anticipated that the actual work will be moving from one location on the project site to another during that period. Actual length of exposure to construction noise at any receptor location will probably be less than the total construction period for the entire project. Typical levels of noise from construction activity (excluding pile driving activity) are shown in FIGURE 8. Existing noise sensitive residential properties are relatively far from the project site (at least 1,200 FT), and should not experience adverse noise impacts from construction activities on the project site. The neighboring Veteran's Center is expected to experience the highest noise levels during construction activities on the project site, but the occupied office spaces of the center are located on the far side (north) and away from the anticipated construction work. Adverse impacts from construction noise are not expected to be in the "public health and welfare" category due to the temporary nature of the work and due to the administrative controls available for its regulation. Instead, these impacts will probably be limited to the temporary degradation of the quality of the acoustic environment in the immediate vicinity of the project site.

Mitigation of construction noise to inaudible levels will not be practical in all cases due to the intensity of construction noise sources (80 to 90+ dB at 50 FT distance), and due to the exterior nature of the work (grading and earth moving, trenching, concrete pouring, hammering, etc.). The use of properly muffled construction equipment should be required on the job site. The incorporation of State Department of Health construction noise limits and curfew times, which are applicable on the island of Oahu (Reference 9), is another noise mitigation measure which can be applied to this project. TABLE 7 depicts the allowed hours of construction for normal construction noise (levels which do not exceed 95 dB at the project's property line) and for construction noise which exceeds 95 dB at the project's property line. Noisy

ANTICIPATED RANGE OF CONSTRUCTION
NOISE LEVELS VS. DISTANCE

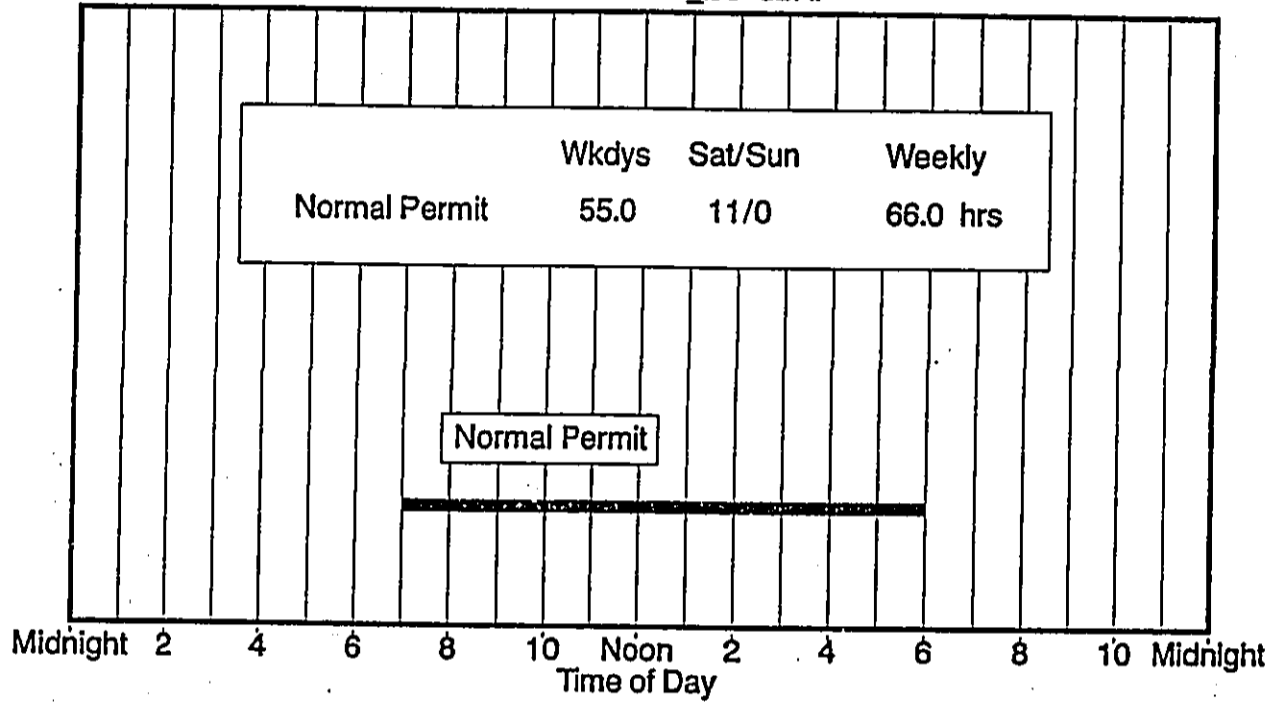


CONSTRUCTION NOISE LEVELS VS. DISTANCE

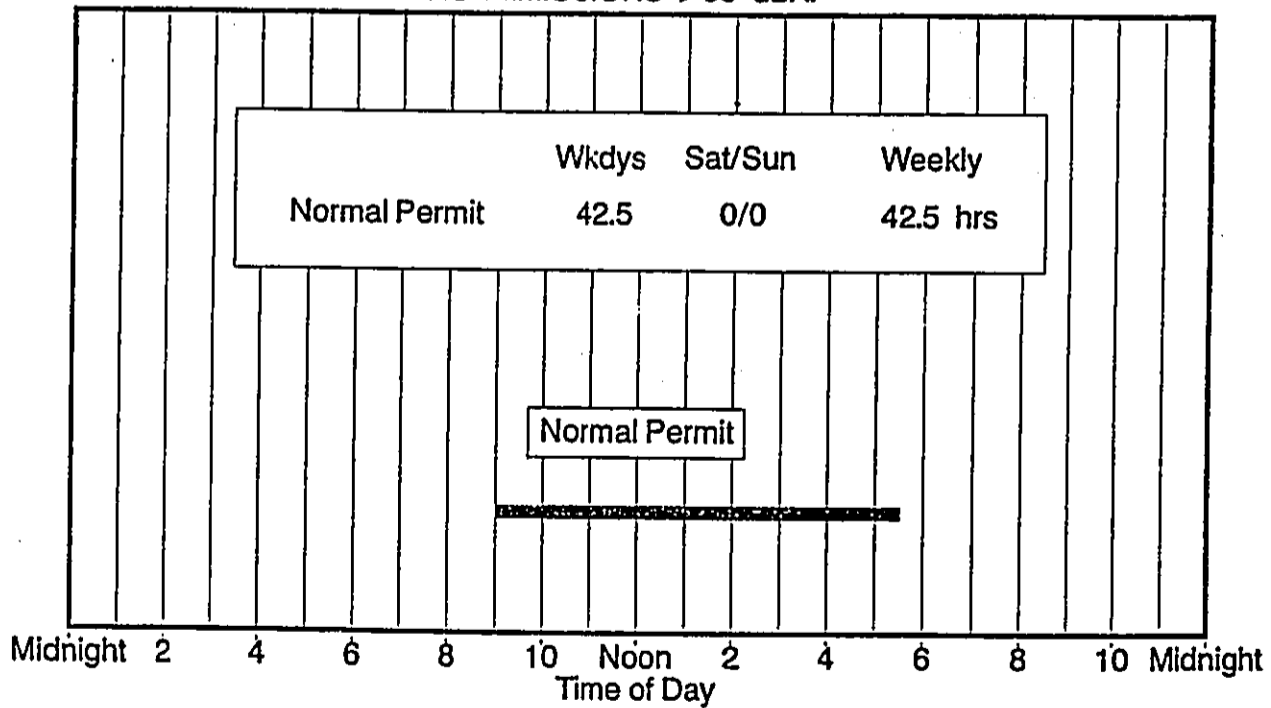
FIGURE
8

TABLE 7
AVAILABLE WORK HOURS UNDER DOH
PERMIT PROCEDURES FOR CONSTRUCTION NOISE

a. DOH PERMIT FOR NOISE EMISSIONS ≤ 95 dBA.



b. DOH PERMIT FOR NOISE EMISSIONS > 95 dBA.



construction activities are not allowed on holidays under the DOH permit procedures.

APPENDIX A. REFERENCES

- (1) "Guidelines for Considering Noise in Land Use Planning and Control;" Federal Interagency Committee on Urban Noise; June 1980.
- (2) "Environmental Criteria and Standards, Noise Abatement and Control, 24 CFR, Part 51, Subpart B;" U.S. Department of Housing and Urban Development; July 12, 1979.
- (3) "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety;" Environmental Protection Agency (EPA 550/9-74-004); March 1974.
- (4) "Volume II - Noise Compatibility Program Report; Lihue Airport, Hawaii;" Hawaii State Department of Transportation, Airports Division; December 1989.
- (5) Barry, T. and J. Reagan, "FHWA Highway Traffic Noise Prediction Model;" FHWA-RD-77-108, Federal Highway Administration; Washington, D.C.; December 1978.
- (6) Traffic Assignments and Projections for the Vidinha Stadium Complex Expansion Project; The Traffic Management Consultant; July 28, 1995.
- (7) 24-Hour Traffic Counts; Station 22-C, Kapule Highway at Ahukini Road; Hawaii State Department of Transportation; November 1 and 3, 1993.
- (8) "Update of the Statewide Airport System Plan Forecasts;" Aries Consultants Ltd.; April 20, 1990.
- (9) "Title 11, Administrative Rules, Chapter 43, Community Noise Control for Oahu;" Hawaii State Department of Health; November 6, 1981.

APPENDIX B

EXCERPTS FROM EPA'S ACOUSTIC TERMINOLOGY GUIDE

Descriptor Symbol Usage

The recommended symbols for the commonly used acoustic descriptors based on A-weighting are contained in Table I. As most acoustic criteria and standards used by EPA are derived from the A-weighted sound level, almost all descriptor symbol usage guidance is contained in Table I.

Since acoustic nomenclature includes weighting networks other than "A" and measurements other than pressure, an expansion of Table I was developed (Table II). The group adopted the ANSI descriptor-symbol scheme which is structured into three stages. The first stage indicates that the descriptor is a level (i.e., based upon the logarithm of a ratio), the second stage indicates the type of quantity (power, pressure, or sound exposure), and the third stage indicates the weighting network (A, B, C, D, E.....). If no weighting network is specified, "A" weighting is understood. Exceptions are the A-weighted sound level and the A-weighted peak sound level which require that the "A" be specified. For convenience in those situations in which an A-weighted descriptor is being compared to that of another weighting, the alternative column in Table II permits the inclusion of the "A". For example, a report on blast noise might wish to contrast the LCdn with the LAdn.

Although not included in the tables, it is also recommended that "Lpn" and "LepH" be used as symbols for perceived noise levels and effective perceived noise levels, respectively.

It is recommended that in their initial use within a report, such terms be written in full, rather than abbreviated. An example of preferred usage is as follows:

The A-weighted sound level (LA) was measured before and after the installation of acoustical treatment. The measured LA values were 85 and 75 dB respectively.

Descriptor Nomenclature

With regard to energy averaging over time, the term "average" should be discouraged in favor of the term "equivalent". Hence, Leq, is designated the "equivalent sound level". For Ld, Ln, and Ldn, "equivalent" need not be stated since the concept of day, night, or day-night averaging is by definition understood. Therefore, the designations are "day sound level", "night sound level", and "day-night sound level", respectively.

The peak sound level is the logarithmic ratio of peak sound pressure to a reference pressure and not the maximum root mean square pressure. While the latter is the maximum sound pressure level, it is often incorrectly labelled peak. In that sound level meters have "peak" settings, this distinction is most important.

"Background ambient" should be used in lieu of "background", "ambient", "residual", or "indigenous" to describe the level characteristics of the general background noise due to the contribution of many unidentifiable noise sources near and far.

With regard to units, it is recommended that the unit decibel (abbreviated dB) be used without modification. Hence, DBA, PNdB, and EPNdB are not to be used. Examples of this preferred usage are: the Perceived Noise Level (Lpn was found to be 75 dB. Lpn = 75 dB). This decision was based upon the recommendation of the National Bureau of Standards, and the policies of ANSI and the Acoustical Society of America, all of which disallow any modification of bel except for prefixes indicating its multiples or submultiples (e.g., deci).

Noise Impact

In discussing noise impact, it is recommended that "Level Weighted Population" (LWP) replace "Equivalent Noise Impact" (ENI). The term "Relative Change of Impact" (RCI) shall be used for comparing the relative differences in LWP between two alternatives.

Further, when appropriate, "Noise Impact Index" (NII) and "Population Weighed Loss of Hearing" (PHL) shall be used consistent with CHABA Working Group 69 Report Guidelines for Preparing Environmental Impact Statements (1977).

APPENDIX B (CONTINUED)

TABLE I

A-WEIGHTED RECOMMENDED DESCRIPTOR LIST

<u>TERM</u>	<u>SYMBOL</u>
1. A-Weighted Sound Level	L_A
2. A-Weighted Sound Power Level	L_{WA}
3. Maximum A-Weighted Sound Level	L_{max}
4. Peak A-Weighted Sound Level	L_{Apk}
5. Level Exceeded x% of the Time	L_x
6. Equivalent Sound Level	L_{eq}
7. Equivalent Sound Level over Time (T) ⁽¹⁾	$L_{eq(T)}$
8. Day Sound Level	L_d
9. Night Sound Level	L_n
10. Day-Night Sound Level	L_{dn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$
12. Sound Exposure Level	L_{SE}

(1) Unless otherwise specified, time is in hours (e.g. the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified a $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine).

SOURCE: EPA ACOUSTIC TERMINOLOGY GUIDE, BNA 8-14-78, NOISE REGULATION REPORTER.

APPENDIX B (CONTINUED)

**TABLE II
RECOMMENDED DESCRIPTOR LIST**

<u>TERM</u>	<u>A-WEIGHTING</u>	<u>ALTERNATIVE⁽¹⁾ A-WEIGHTING</u>	<u>OTHER⁽²⁾ WEIGHTING</u>	<u>UNWEIGHTED</u>
1. Sound (Pressure) Level ⁽³⁾	L_A	L_{pA}	L_B, L_{pB}	L_p
2. Sound Power Level	L_{WA}		L_{WB}	L_W
3. Max. Sound Level	L_{max}	L_{Amax}	L_{Bmax}	L_{pmax}
4. Peak Sound (Pressure) Level	L_{Apk}		L_{Bpk}	L_{pk}
5. Level Exceeded x% of the time	L_x	L_{Ax}	L_{Bx}	L_{px}
6. Equivalent Sound Level	L_{eq}	L_{Aeq}	L_{Beq}	L_{peq}
7. Equivalent Sound Level Over Time(T) ⁽⁴⁾	$L_{eq(T)}$	$L_{Aeq(T)}$	$L_{Beq(T)}$	$L_{peq(T)}$
8. Day Sound Level	L_d	L_{Ad}	L_{Bd}	L_{pd}
9. Night Sound Level	L_n	L_{An}	L_{Bn}	L_{pn}
10. Day-Night Sound Level	L_{dn}	L_{Adn}	L_{Bdn}	L_{pdn}
11. Yearly Day-Night Sound Level	$L_{dn(Y)}$	$L_{Adn(Y)}$	$L_{Bdn(Y)}$	$L_{pdn(Y)}$
12. Sound Exposure Level	L_S	L_{SA}	L_{SB}	L_{Sp}
13. Energy Average value over (non-time domain) set of observations	$L_{eq(e)}$	$L_{Aeq(e)}$	$L_{Beq(e)}$	$L_{peq(e)}$
14. Level exceeded x% of the total set of (non-time domain) observations	$L_{x(e)}$	$L_{Ax(e)}$	$L_{Bx(e)}$	$L_{px(e)}$
15. Average L_x value	L_x	L_{Ax}	L_{Bx}	L_{px}

(1) "Alternative" symbols may be used to assure clarity or consistency.

(2) Only B-weighting shown. Applies also to C,D,E,.....weighting.

(3) The term "pressure" is used only for the unweighted level.

(4) Unless otherwise specified, time is in hours (e.g., the hourly equivalent level is $L_{eq(1)}$). Time may be specified in non-quantitative terms (e.g., could be specified as $L_{eq(WASH)}$ to mean the washing cycle noise for a washing machine.

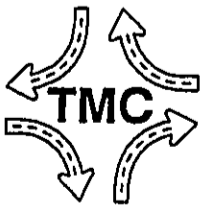
APPENDIX B

**DRAFT TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED**

VIDINHA STADIUM COMPLEX EXPANSION

PREPARED FOR
AKINAKA & ASSOCIATES, LTD.

SEPTEMBER 8, 1995



PREPARED BY

THE TRAFFIC MANAGEMENT CONSULTANT

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**DRAFT TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED
VIDINHA STADIUM COMPLEX EXPANSION**

I. Introduction

A. Purpose of Study

The purpose of this study is to identify and analyze the potential traffic impacts resulting from the expansion of the Vidinha Stadium Complex in Lihue, Kauai, Hawaii. This study also recommends improvements that would mitigate the traffic impacts identified in this study. This report documents the study's methodology, assumptions, findings, and recommendations.

B. Scope of Study

The scope of this study includes the following:

1. Existing traffic and roadway conditions in the vicinity of the project site are evaluated. Three peak periods are analyzed in this study: the commuter PM peak hour; the early evening peak hour; and the late evening peak hour.
2. Trip generation characteristics of the proposed expansion are developed, using generally accepted techniques developed by the Institute of Transportation Engineers (ITE). ITE rates are used to estimate trip generation during the PM peak hour of weekday traffic. Event-related trip generation is developed from a trip generation study conducted for Vidinha Stadium.
3. Future traffic conditions, resulting from the regional growth in traffic and the other projects being planned within the vicinity, are developed to analyze traffic operations without the proposed expansion.
4. The site-generated traffic is added to the projected traffic conditions to assess the resulting traffic impacts. Three periods of analysis are evaluated: the commuter PM peak hour of weekday traffic; the early evening peak hour prior to a special event held at Vidinha Stadium Complex; and the late evening peak hour at the conclusion of the special event.

5. Traffic improvements are recommended that would mitigate the traffic impacts identified in this study.

C. Project Description

The Vidinha Stadium Complex is located on the west side of Kapule Highway in Lihue. The project site is located immediately to the north of the existing stadium. Figure 1 depicts the vicinity of the proposed project.

The Vidinha Stadium Complex Expansion is comprised of three phases corresponding to separate components of the development plan: Phase I includes the swimming pool facilities; Phase II is made up of 11 tennis courts with portable bleachers and lighting; and Phase III includes a gymnasium, which can host basketball and volleyball games, as well as non-sporting events such as concerts, exhibits, and large meetings. The gymnasium would provide 4,000 seats, which could be expanded by an additional 1,000 seats for a total seating capacity of 5,000 persons. Phase III also includes an additional 393 parking spaces, bringing the total parking capacity to 1,141 stalls.

Access would continue to be provided by Hoolako Street and an existing roadway access on Kapule Highway, referred to herein as the Vidinha Stadium Access Road. Hoolako Street is proposed to be extended to Ahukini Road. However because the time frame of the road improvement is unclear at the writing of this report, the traffic impact analysis is based upon the existing access. Figure 2 illustrates the project site plan.

II. Study Area Conditions

A. Limits of the Study Area

The study area for the traffic impact analysis includes the site accesses and major intersections in the vicinity, which are expected to be the most significantly affected by traffic generated by the proposed Vidinha Stadium Complex Expansion. These include:

- Rice Street and Hoolako Street
- Kapule Highway and Rice Street
- Kapule Highway and Vidinha Stadium Access
- Kapule Highway and Ahukini Road

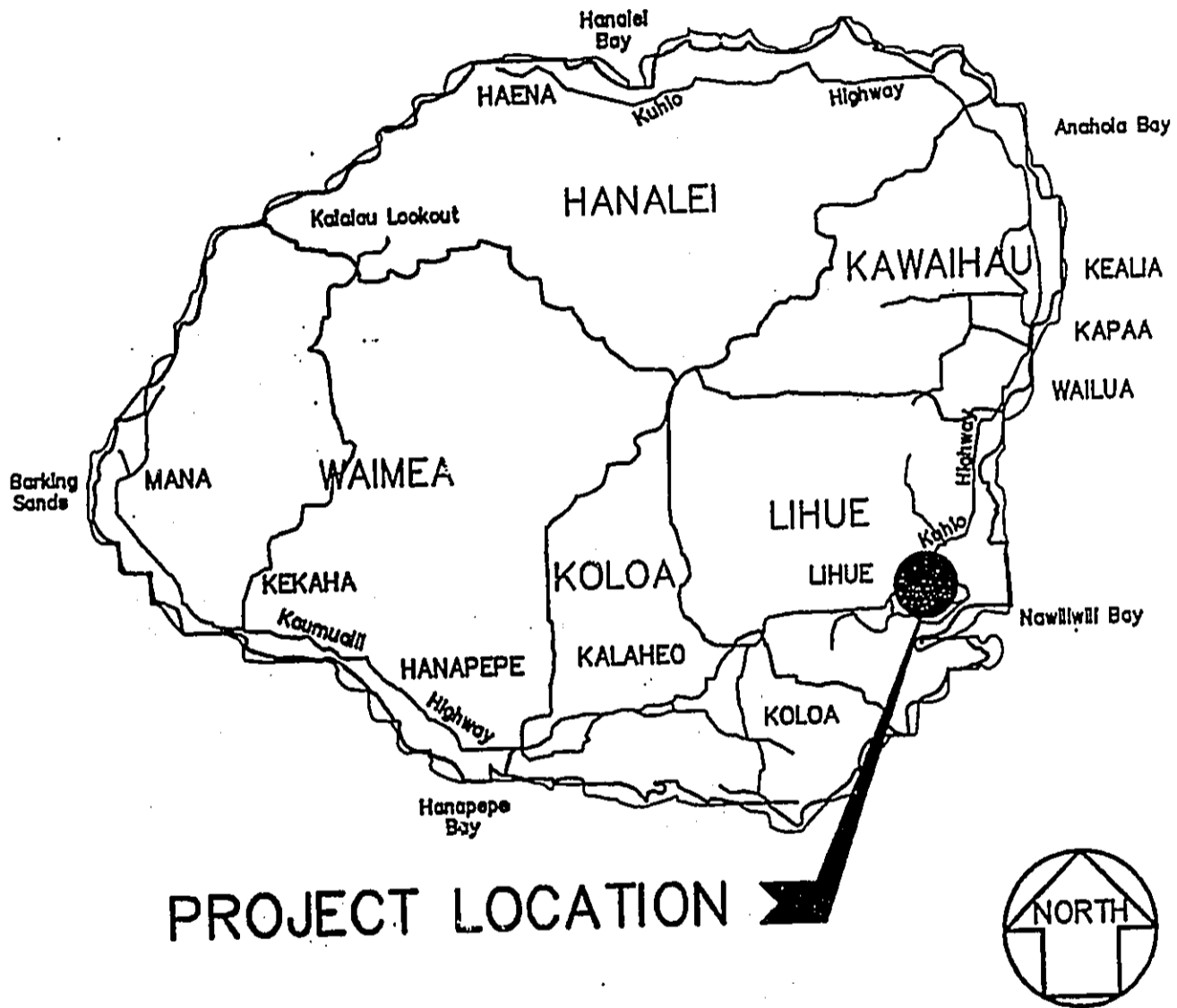


Figure 1. Location Of Project

B. Study Area Land Use

1. Existing Surrounding Land Uses

Existing land uses, surrounding the Vidinha Stadium Complex, include the Lihue Industrial Park, located to the south, and sugar cane fields, located to the north and west. The recently completed Veterans Center is located immediately to the north of the project site.

2. Anticipated Future Development

The most significant land development, being planned in the vicinity of the project site, is the Lihue-Hanamaulu Master Plan Development. The 552 acre property, located between Lihue and Hanamaulu, is being developed by AMFAC/JMB Hawaii, Inc. The traffic impact analysis for the project is presented in the "Traffic Impact Report for the Proposed Lihue-Hanamaulu Master Plan Development" by Austin, Tsutsumi & Associates, Inc. (ATA), dated October 5, 1994. The Lihue-Hanamaulu Master Plan Development (LHMP) consists of 1,800 dwelling units, 70 acres of commercial uses, and 128 acres of industrial uses, to be developed over a ten year time frame, beginning in the Year 1997. The development of Phase I of the LHMP coincides with the proposed expansion of the Vidinha Stadium Complex.

Phase I of the LHMP is expected to be fully built-out and occupied by the Year 2001. Phase I includes 552 single-family and multi-family dwelling units, 122,000 square feet of retail floor area, 80,000 square feet of office space, 658,000 square feet of industrial floor area, 188,000 square foot civic center, YMCA, elementary school, and park area.

Other developments being constructed or planned in the vicinity include: the Wal-Mart Store, being constructed on Kuhio Highway; a 180 dwelling unit Molokoa III, located in Lihue, west of the project site; and the 213 dwelling unit Hanamaulu II, located in Hanamaulu.

III. Existing Traffic Conditions

A. Area Roadway System

Regional access to the Vidinha Stadium Complex is provided by two major roadways. Kapule Highway provides access from Hanamaulu and points to the north, via Kuhio Highway. Rice Street provides access from Lihue Town and points to the west, via Kaumualii Highway. Rice Street extends southward to Nawiliwili Harbor, then westward to Kaumualii Highway via Nawiliwili Road.

Kapule Highway is a two lane arterial highway between Hanamaulu and Lihue. Kapule Highway is the continuation of Kuhio Highway near Hanamaulu and terminates at Rice Street to the south in Lihue. Kapule Highway is signalized at its fully channelized four-legged intersection with Ahukini Road with separate left turn, right turn, and through lanes in both directions. Kapule Highway is stop-controlled at its channelized T-intersection with Rice Street.

Rice Street is a two lane arterial street between Lihue and Nawiliwili. Rice Street is the continuation of Kaumualii Highway, west of Lihue Town and terminates in Nawiliwili. Rice Street is unsignalized at its intersections with Hoolako Street and with Kapule Highway. Eastbound Rice Street provides an exclusive left turn lane at Kapule Highway. Separate left turn lanes are not provided at Hoolako Street, however the wide approaches on Rice Street permit through traffic to bypass left turn vehicles. At this writing, the County of Kauai is planning to widen Rice Street to four lanes, between Kaumualii Highway and Kapule Highway.

Ahukini Road is a two lane collector, which provides access to the Lihue Airport. Separate left turn, right turn, and through lanes are provided in both directions on Ahukini Highway at its traffic signalized intersection with Kapule Highway.

Hoolako Street is a two lane collector street which provides access to the Vidinha Stadium Complex through the Lihue Industrial Park. Hoolako Street is stop-controlled at its intersection with Rice Street. At the present time, Hoolako Street terminates at its intersection with the Vidinha Stadium Access Road. The AMFAC/JMB Lihue-Hanamaulu Master Plan proposes to extend Hoolako Street to Ahukini Road. While the extension of Hoolako Street would improve

access to and from the Vidinha Stadium Complex, the time frame, in which the road construction is being planned, is uncertain. Therefore, this traffic impact analysis is based upon the existing stadium access.

The Vidinha Stadium Access Road is a local road between Kapule Highway and Hoolako Street. The Vidinha Stadium Access Road is stop-controlled at its intersection with Kapule Highway. The intersection between Hoolako Street and the Access Road is uncontrolled. The proposed expansion is located on the north side of the Access Road.

B. Existing Traffic Volumes and Conditions

1. General

The proposed Vidinha Stadium Complex Expansion is not expected to have a significant impact on the AM peak hour of traffic, based upon ITE trip rates for tennis courts, indoor arenas, and recreational centers. The most significant traffic impacts are expected from event-related activities at the gymnasium during the early evening prior to the event and during the late evening at the end of the event. Therefore, three periods of traffic are evaluated: the PM commuter peak hour of weekday traffic; the early evening peak hour prior to a special event held at Vidinha Stadium Complex; and the late evening peak hour at the conclusion of the special event.

The existing traffic data was derived from several sources: manual traffic count surveys taken in 1995 for this study during a special event held at Vidinha Stadium; peak traffic count data, taken in May 1994 and presented in the LHMP traffic study, was used to establish the PM commuter peak hour traffic during non-event days; and the 1993 Traffic Survey Data for the Island of Kauai, prepared by the Hawaii State Department of Transportation (DOT); was used to establish the early evening and late evening traffic conditions during non-event days. The 1993 and 1994 data were verified and updated to 1995 conditions.

The field investigation was conducted on June 2, 1995 from 3:00 PM to 10:00 PM, the day when the Kauai High School graduation ceremony was held at Vidinha Stadium. The graduation ceremony began at 7:00 PM and concluded around 9:00 PM. Manual traffic count surveys were conducted at

the intersections listed under the study area. A vehicle occupancy survey also was conducted at the Hoolako Street entrance to Vidinha Stadium parking lot.

2. Capacity Analysis Methodology

The highway capacity analysis performed for this study is based upon procedures presented in the "Highway Capacity Manual" (HCM), Special Report 209, Transportation Research Board, and the "Highway Capacity Software", Federal Highways Administration.

Level of Service (LOS) is defined as "a qualitative measure describing operational conditions within a traffic stream". Several factors are included in determining LOS such as: speed, delay, vehicle density, freedom to maneuver, traffic interruptions, driver comfort, and safety. LOS "A", "B", and "C" are considered satisfactory levels of service. LOS "D" is generally considered a "desirable minimum" operating level of service. LOS "E" is an undesirable condition and LOS "F" is an unacceptable condition.

"Volume-to-capacity" (v/c) ratio is another measure indicating the relative traffic demand to the road's traffic carrying ability. A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50 percent of the roadway's capacity.

3. Existing PM Commuter Peak Hour

The PM commuter peak hour in the vicinity generally occurs between 4:00 PM and 5:00 PM. Figure 3 depicts the existing PM commuter peak hour traffic volumes and results of the Level of Service analysis.

The direction of traffic flow on Kapule Highway is predominantly in the northbound direction (74%), including a heavy left turn movement on eastbound Ahukini Road to northbound Kapule Highway. The intersection of Kapule Highway and Ahukini Road operates at an overall LOS "D" and a v/c ratio of 0.84.

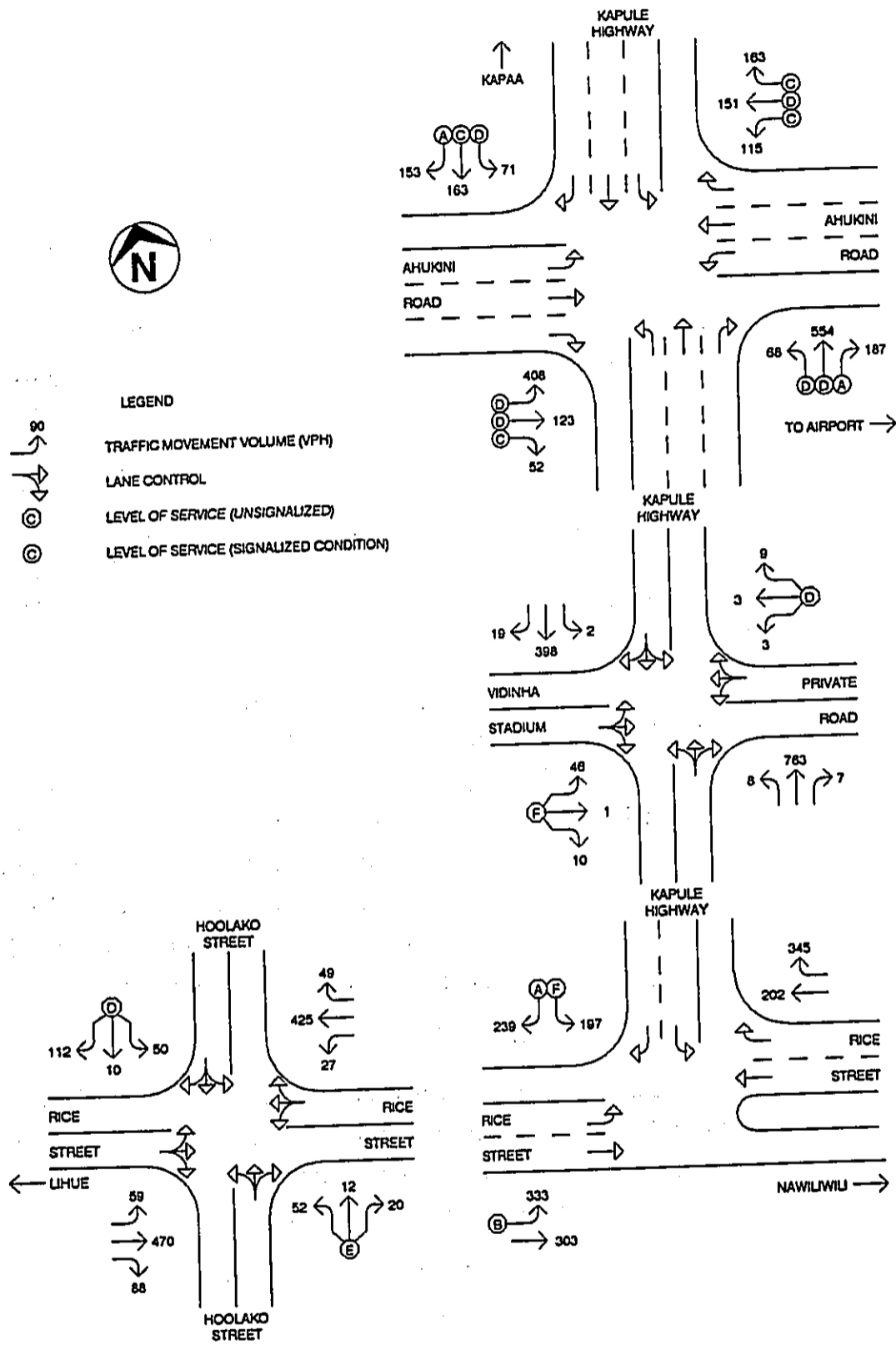


Figure 3. Existing PM Commuter Peak Hour Traffic

The Vidinha Stadium Access Road experiences LOS "E" conditions, during the existing PM commuter peak hour. The traffic delay on the Access Road is due to the heavy traffic and high speeds on Kapule Highway. The traffic flow on Kapule Highway is again primarily in the northbound direction (66%).

The left turn movement from southbound Kapule Highway to eastbound Rice Street experiences LOS "F" conditions during the existing PM commuter peak hour. The traffic delay on the left turn movement from southbound Kapule Highway to eastbound Rice Street is due to the heavy traffic and high speeds on Rice Street. Rice Street experiences heavy left turn and right turn movements to northbound Kapule Highway. The projected traffic demands at the intersection of Rice Street and Kapule Highway currently meet the peak hour volume warrant for traffic signals, according to the "Manual of Uniform Traffic Control Devices For Streets and Highways" (MUTCD), prepared by the Federal Highways Administration, U. S. Department of Transportation.

Hoolako Street at Rice Street experiences LOS "D" and LOS "E" conditions on the southbound and northbound approaches, respectively. The traffic delays on both approaches of Hoolako Street are due to the heavy traffic on Rice Street. Traffic flow on Rice Street is evenly split between eastbound and westbound directions, during the existing PM commuter peak hour. The existing PM commuter peak hour traffic demands at the intersection of Rice Street and Hoolako Street currently meet the minimum peak hour volume warrant for traffic signals, according to the MUTCD.

4. Existing Early Evening Peak Hour

The early PM peak hour between 6:00 PM and 7:00 PM, prior to an event held at Vidinha Stadium, was selected for analysis. Figure 4 depicts the existing early evening peak hour traffic volumes and results of the Level of Service analysis during a typical non-event weekday.

The traffic volumes in the study area, during the early evening, decreases to about one half the PM commuter peak hour traffic demands. The flow of traffic is still predominantly in the northbound direction (66%). The intersections in the study area operate at satisfactory LOS.

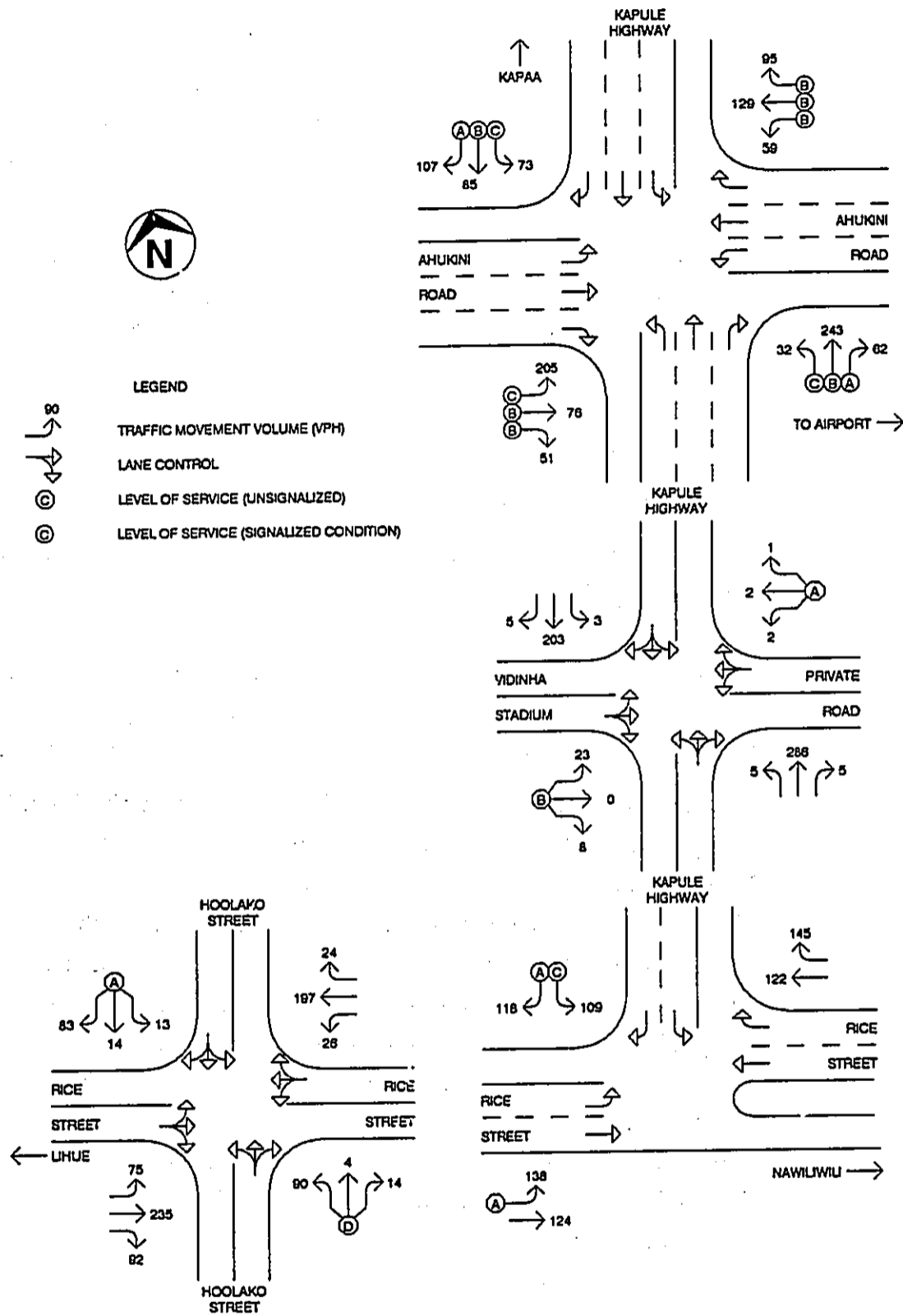


Figure 4. Existing Early Evening Peak Hour Traffic

5. Existing Late Evening Peak Hour

The late PM peak hour between 8:45 PM and 9:45 PM, at the end of an event held at Vidinha Stadium, was selected for analysis. Figure 5 depicts the existing late evening peak hour traffic volumes and results of the Level of Service analysis during a typical non-event weekday.

The traffic volumes in the study area, during the late evening, decreases to about one fourth of the PM commuter peak hour traffic demands. The intersections in the study area operate at satisfactory LOS.

IV. Projected Traffic

A. Site-Generated Traffic

1. Trip Generation Methodology

The commuter peak hour traffic is analyzed under non-event conditions, generated by the proposed expansion. ITE peak hour trip generation rates are not available for a gymnasium or a swimming pool. This study uses the trip rates developed by ITE for a recreational community center, which contains some of the daily activities expected at the proposed expansion. The ITE trip rates for tennis courts are used to analyze the tennis court complex.

The trip generation for a special event, held at the Vidinha Stadium Complex, is analyzed separately. A trip generation study was conducted at Vidinha Stadium during the Kauai High School graduation ceremony in June 1995. The study included manual vehicle counts at both the Hoolako Street and the Kapule Highway accesses to the parking lot and a vehicle occupancy survey at Hoolako Street entrance. Attendance figures were not available for the graduation ceremony. An attendance of 2,500 persons was used for the purpose of the trip generation analysis, based upon the vehicle occupancy survey. About 2,500 persons arrived during the two hours prior to the ceremony. This number corresponds to the 2,500 person seating capacity reserved for the graduation ceremony at the stadium. The estimated attendance is correlated with the observed traffic arriving at the stadium before the beginning of the graduation ceremony.

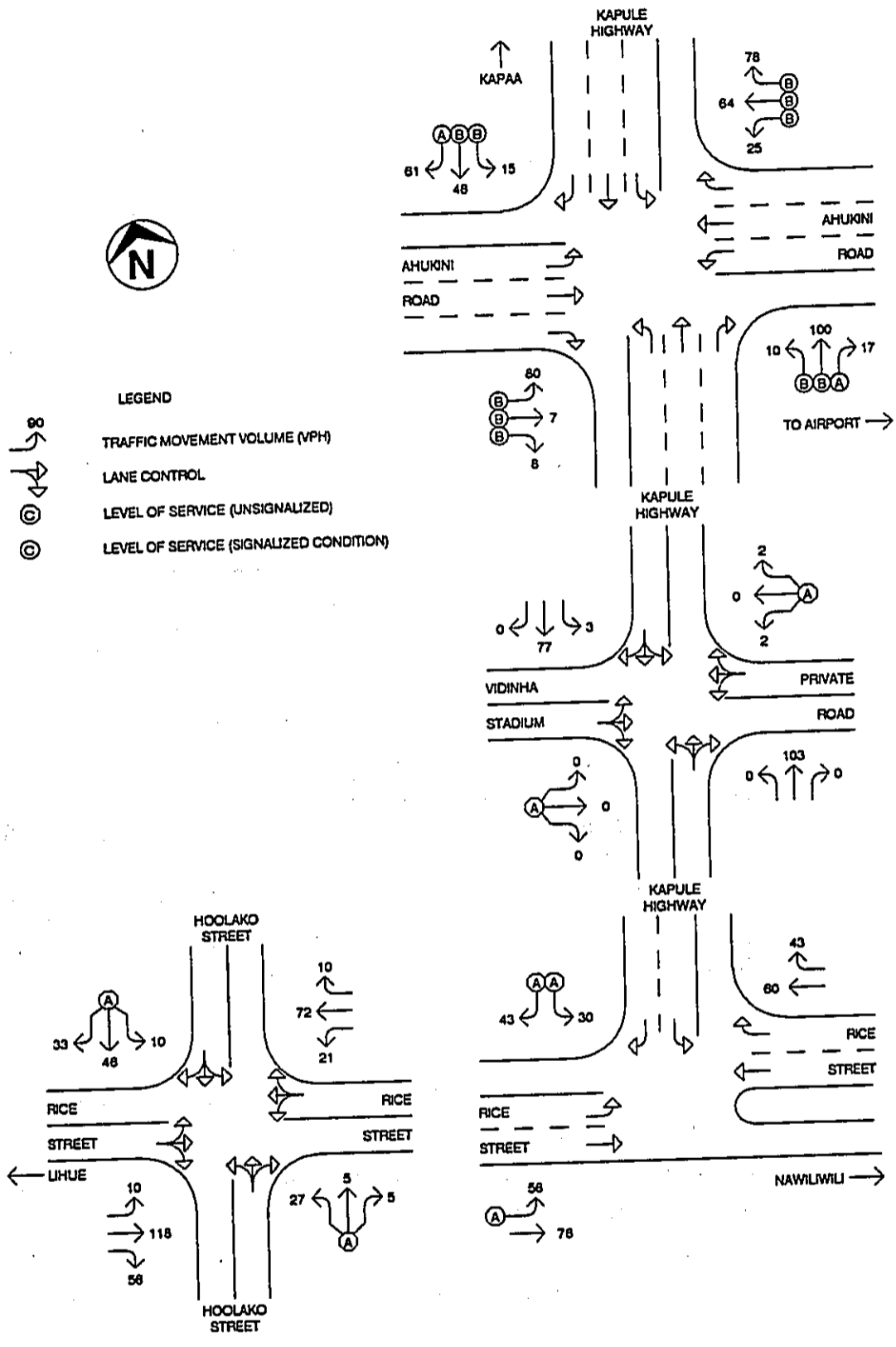


Figure 5. Existing Late Evening Peak Hour Traffic

2. Trip Generation Characteristics

Only the PM peak hour traffic impacts are analyzed for the proposed expansion. The AM peak hour trip generation for proposed expansion is not expected to be significant. The PM commuter peak hour traffic, generated by the proposed expansion, is based upon the building floor areas for the gymnasium and the swimming pool complex and the number of courts contained in the tennis complex.

The proposed expansion is expected to generate a total of 176 vehicles per hour (vph), 69 vph entering the site and 107 vph exiting the site during the PM commuter peak hour. Table 1 summarizes the AM and PM commuter peak hour trip generation characteristics for each component of the proposed expansion.

Table 1. PM Commuter Peak Hour Trip Generation Characteristics						
Facility	AM Peak Hour (vph)			PM Peak Hour (vph)		
	Enter	Exit	Total	Enter	Exit	Total
Gymnasium	12	8	8	22	34	56
Swimming Pool	15	11	19	31	48	79
Tennis Courts	22	16	38	16	25	41
Total	49	35	65	69	107	176

The proposed gymnasium has a seating capacity of up to 5,000 seats. The swimming pool complex can accommodate 1,000 seats. Portable bleachers are available for the tennis courts, however the seating capacity is not available. It is assumed that only one large event will be scheduled at the Vidinha Stadium Complex on any given day at the same time, i.e., simultaneous events would not be held the stadium and the gymnasium. Therefore the largest event that is expected to be held at the Vidinha Stadium Complex is 5,000 persons at either the proposed gymnasium or the existing stadium.

Prior to a 5,000 person event held at the Vidinha Stadium Complex, the proposed expansion is expected to generate at total of 1,674 vph, 1,486 vph entering the site and 188 vph exiting the site. After the 5,000 person event, the proposed expansion is expected to generate at total of 2,284 vph, 198 vph entering the site and 2,086 vph exiting the site. Table 2 summarizes the trip generation characteristics for a 5,000 person special event held at the Vidinha Stadium Complex.

Table 2. Special Event Trip Generation Characteristics			
Independent Variable = 5,000 Seats		ITE Avg Trip Rate	Vehicle Trips
Pre-Event Peak Hr of Generator	Enter	0.297	1486
	Exit	0.038	188
	Total	0.335	1674
Post-Event Peak Hr of Generator	Enter	0.040	198
	Exit	0.417	2086
	Total	0.457	2284

B. External Traffic

1. Traffic Forecast

The Year 2001 was selected as the planning horizon for the traffic impact analysis, when proposed expansion is expected to be completed. The average annual background growth in traffic used in this analysis is based upon historical traffic count data, obtained from the State DOT, and adjusted for the slowdown in Kauai's economy and the resulting effects on traffic. The Kauai economy has yet to recover fully from the effects of Hurricane Iniki, which struck Kauai in September 1992. Traffic data, collected since 1992, reflected the slowdown in the island's economy and were not used in the "traffic forecasting analysis.

The average pre-Iniki growth rate in traffic of 3.0 percent per year is used to update traffic data, obtained from other traffic studies performed in the vicinity, to the existing 1995 traffic conditions. The 3.0 percent annual growth rate is used to estimate the Year 2001 traffic conditions, assuming that Kauai resumes its growth trend within that time frame.

2. Future Off-Site Traffic In Study Area

Future off-site traffic generated within the study area is based upon the Phase I trip generation characteristics of the Lihue-Hanamaulu Master Plan (LHMP), developed in the "Traffic Impact Report for the Proposed Lihue-Hanamaulu Master Plan Development" by Austin, Tsutsumi & Associates, Inc. (ATA). The ATA study also includes the trip generation analysis for the Wal-Mart Store, Molokoa III, Hanamaulu II developments.

The ATA study did not present trip generation characteristics for these projects during the off-peak hours, such as during the early and late evenings. Furthermore, ITE has not developed trip generation rates during the off-peak periods. For the purpose of this analysis, it is assumed that the early PM peak hour trip generation for future projects in the study area is 80 percent of the PM commuter peak hour trip generation characteristics. It is further assumed that the late PM peak hour trip generation is 20 percent of the PM commuter peak hour trip generation characteristics.

C. Year 2001 Traffic Analysis Without the Proposed Expansion

1. General

The off-site traffic, generated within the vicinity of the proposed expansion, was added to the background growth in traffic to arrive at the Year 2001 traffic conditions without the proposed expansion. The planned developments around the Vidinha Stadium Complex are expected to increase traffic demands on the existing roadways within the study area. There are several roadway improvements, proposed by State DOT, the County of Kauai, and private developers, that are currently in the planning stages.

The County of Kauai is proposing to widen Rice Street from two (2) lanes to four (4) lanes between Kapule Highway and Kuhio Highway. It is further recommended that the Hoolako Street be restriped at Rice Street to provide an exclusive left turn lane and a shared through/right turn lane in the

northbound direction and a shared left turn/through lane and an exclusive right turn lane in the southbound direction. The County also proposes to signalize the intersection of Rice Street and Hoolako Street. The proposed Rice Street improvements are expected to begin construction in 1999. The traffic analysis, without the proposed expansion, includes the proposed Rice Street improvements.

The State Department of Transportation is planning to signalize the intersection of Kapule Highway at Hao Street and Halau Street. This intersection is located between the Vidinha Stadium access roadway and Rice Street.

2. PM Commuter Peak Hour Traffic Without the Proposed Expansion

The Year 2001 PM commuter peak hour traffic demand without the proposed expansion is expected to exceed the carrying capacity of the existing intersection of Kapule Highway and Ahukini Road. Kapule Highway, north of Ahukini Road, also is expected to reach the capacity of the two lane highway. Critical traffic movements at the intersection operate at LOS "F". Without any improvements, the extreme delays, experienced by motorists during the PM commuter peak hour, would likely divert northbound traffic to Kuhio Highway.

The projected traffic volumes on Kapule Highway at the Vidinha Stadium Access Road would result in LOS "E" conditions on unsignalized side streets during the Year 2001 PM commuter peak hour without the proposed expansion. However, the traffic volumes on the Access Road remain relatively low during the PM commuter peak hour without the proposed expansion, and would not meet minimum peak hour volume warrant for traffic signals, according to the MUTCD.

The left turn movement from southbound Kapule Highway to eastbound Rice Street would continue to operate at LOS "F", under unsignalized conditions. The left turn movement from eastbound Rice Street to northbound Kapule Highway also would operate at LOS "F" during the Year 2001 PM commuter peak hour without the proposed expansion.

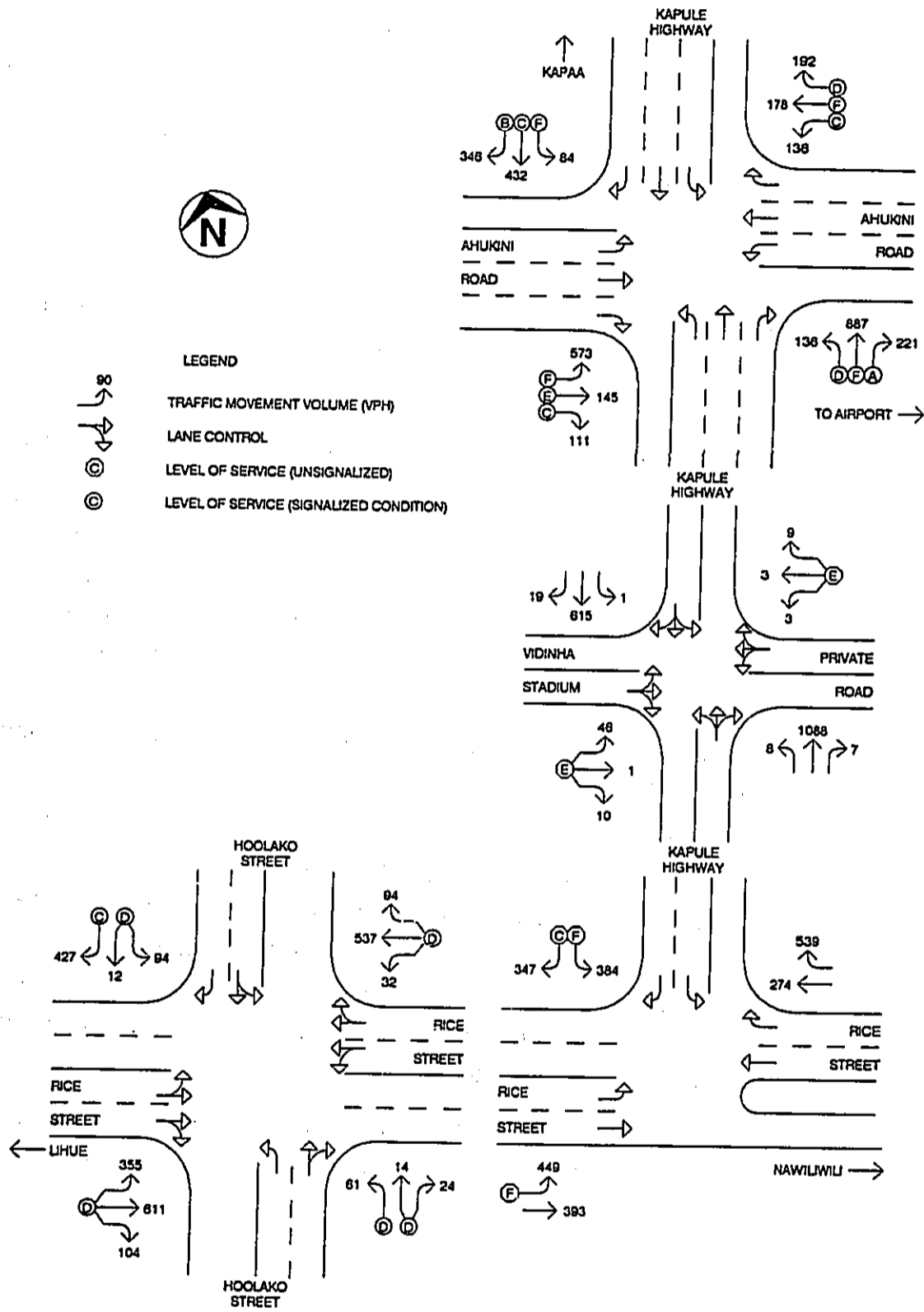


Figure 6. Year 2001 PM Commuter Peak Traffic W/O Project

3. Early Evening Peak Hour Traffic Without the Proposed Expansion

By the Year 2001, the left turn movement from southbound Kapule Highway to eastbound Rice Street would continue to operate at LOS "F" during the early evening peak hour without the proposed expansion. The intersection of Rice Street and Hoolako Street is expected to operate at LOS "C" during the early evening, under signalized conditions. Figure 7 depicts the Year 2001 early evening peak hour traffic without the proposed expansion.

4. Late Evening Peak Hour Traffic Without the Proposed Expansion

During the late evening, traffic volumes decline significantly. All the intersections, within the study area, are expected to operate at satisfactory LOS without the proposed expansion. Figure 8 depicts the late evening peak hour traffic without the proposed expansion.

V. Cumulative Traffic With the Proposed Expansion

A. General

The proposed expansion is not expected to significantly impact the AM commuter peak hour traffic, therefore it is not included in this traffic impact analysis. The proposed expansion is expected to impact the PM commuter peak hour traffic and the early and late evening traffic during large special events held at the Vidinha Stadium Complex.

The trips, generated during the PM commuter peak hour by the proposed expansion, are superimposed over the Year 2001 PM commuter peak hour conditions without the proposed expansion. The PM commuter peak hour traffic impacts, resulting from the proposed expansion, can be considered daily occurrences under normal conditions.

The traffic impacts, resulting from a 5,000 person event held at the existing stadium complex, could already occur without the proposed expansion. The proposed gymnasium complex could accommodate up to a 5,000 seating capacity. It is assumed that simultaneous events will not be scheduled at the Vidinha Stadium Complex, therefore the largest event expected would remain the 5,000 person event. While the size of the special event remains the same with or without the proposed expansion, the proposed gymnasium would provide the

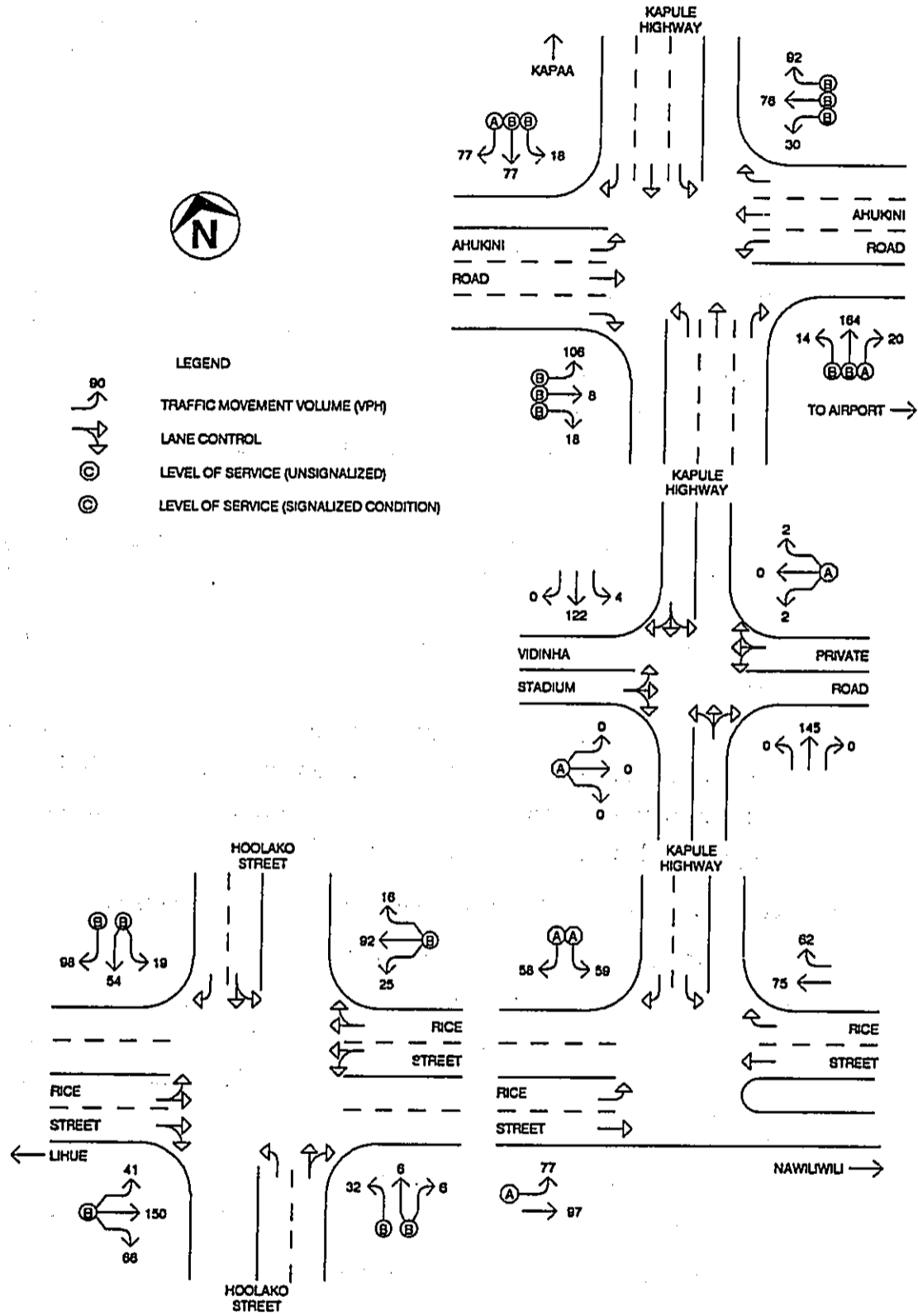


Figure 8. Year 2001 Late Eve Peak Hr Traffic W/O Project

venue for basketball and volleyball games as well as non-sporting events requiring an enclosed arena. Therefore, the traffic impact analysis of a 5,000 person special event is analyzed in this study.

**B. Traffic Improvements Assumed To Be Implemented
Prior To The Proposed Expansion**

Several roadway deficiencies are identified in the analysis of the Year 2001 traffic conditions without the proposed expansion. The required traffic improvements are assumed to be implemented in a timely manner by their respective government agencies or by private developers as conditions of approval for their projects. The traffic impact analysis is performed assuming the following traffic improvements are implemented to mitigate the Year 2001 traffic impacts without the proposed expansion.

1. Kapule Highway would be widened to a four-lane divided highway, between Kuhio Highway and a point south of Ahukini Road (State-proposed).
2. The intersection of Rice Street and Kapule Highway would be signalized (County-proposed).
3. Hoolako Street would be restriped at Rice Street to provide two lane approaches: an exclusive left turn lane and a shared through/right turn lane in the northbound direction; and a shared left turn/through lane and an exclusive right turn lane in the southbound direction.

C. Access Improvements Required With the Proposed Expansion

The Kapule Highway access to the Vidinha Stadium Complex would require additional improvements as a result of the proposed expansion. The traffic impact analysis is performed assuming the following access improvements are implemented to mitigate the Year 2001 traffic impacts with the proposed expansion.

1. Kapule Highway should be widened to provide exclusive left turn lanes in both directions at its intersection with the Vidinha Stadium Access Road.
2. Southbound Kapule Highway should be widened to provide an exclusive right turn lane at the Vidinha Stadium Access Road.

3. The Vidinha Stadium Access Road should be widened to provide an exclusive right turn lane and a shared through/left turn lane at Kapule Highway.

D. Traffic Impact Analysis

1. PM Commuter Peak Hour Analysis With the Proposed Expansion

The recommended improvements, required by the Year 2001 without the proposed project, are expected to mitigate the traffic impacts resulting from the proposed expansion. The intersection of Kapule Highway and Ahukini Road is expected to operate at an overall LOS "C" and a v/c ratio of 0.84 during the PM commuter peak hour. The left turn movement on the Vidinha Stadium Access Road at Kapule Highway is expected to continue to operate at LOS "F" during the PM commuter peak hour. However, the side street traffic demand is not expected to meet the minimum MUTCD peak hour volume warrant for traffic signals. The intersection of Rice Street and Hoolako Street is expected to operate at an overall LOS "D" during the PM commuter peak hour. The signalized intersection of Rice Street and Kapule Highway is expected to operate at LOS "B" during the PM commuter peak hour. Figure 9 depicts the PM commuter peak hour traffic with the proposed expansion.

2. Pre-Event Peak Hour Analysis

The intersection of Rice Street and Hoolako is expected to operate at an overall LOS "D" and a v/c ratio of 0.92 prior to a special event held at the Vidinha Stadium Complex. The critical movements on every approach are expected to operate at LOS "E". The left turn movement on the Vidinha Stadium Access Road at Kapule Highway would continue to operate at LOS "F". The Rice Street intersections at Hoolako Street and at Kapule Highway are expected to operate at LOS "D" and LOS "B", respectively, prior to a special event held at the Vidinha Stadium Complex. Figure 10 depicts the pre-event peak hour traffic with the proposed expansion.

3. Post-Event Peak Hour Analysis

The traffic impacts after a special event, held at the Vidinha Stadium Complex, are egress-oriented, i.e., traffic congestion would result from vehicles exiting the parking lot. The left turn movement from the Vidinha Stadium Access Road to northbound Kapule Highway and the right turn

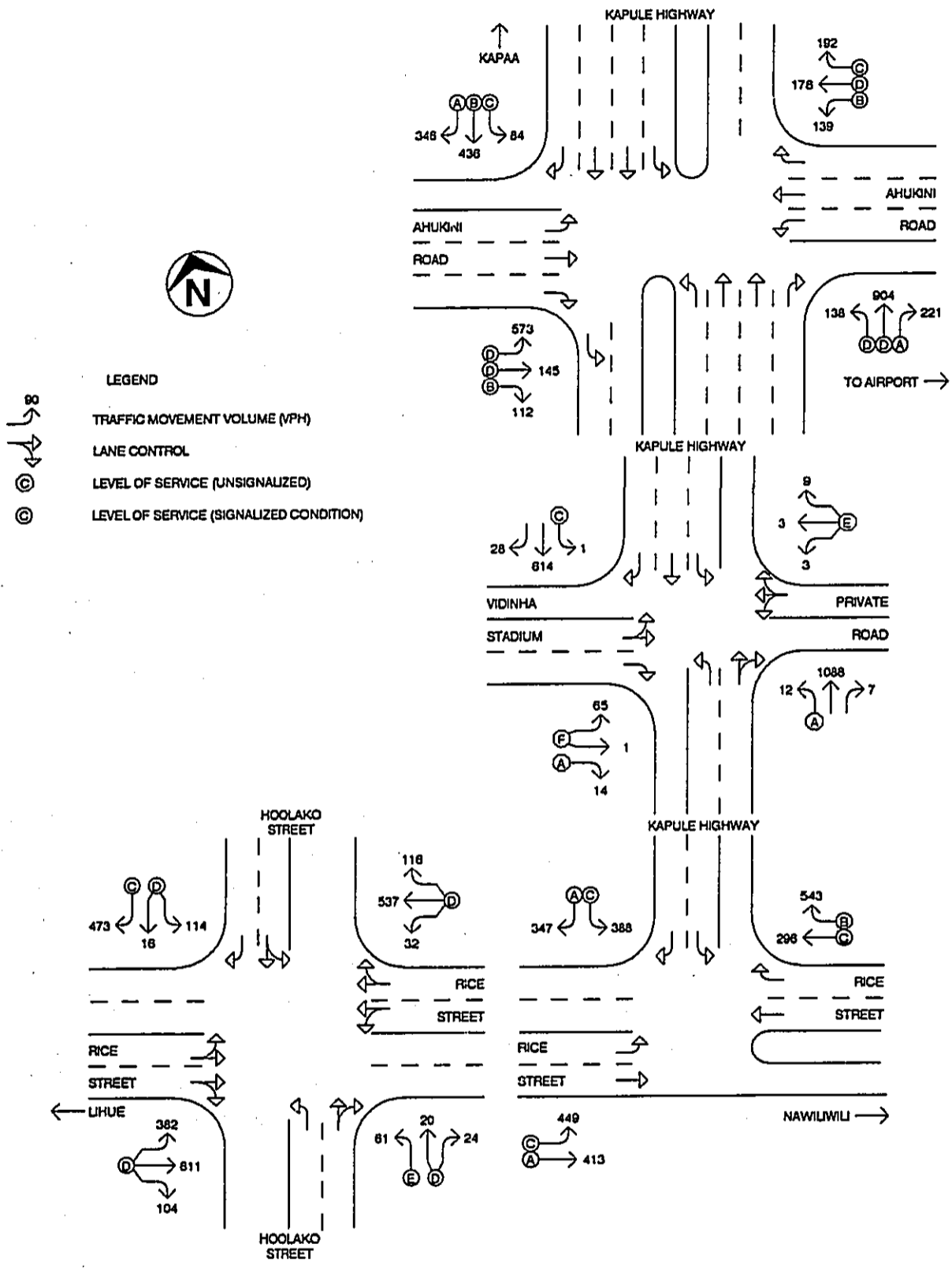


Figure 9. Cumulative PM Commuter Peak Traffic W/Project

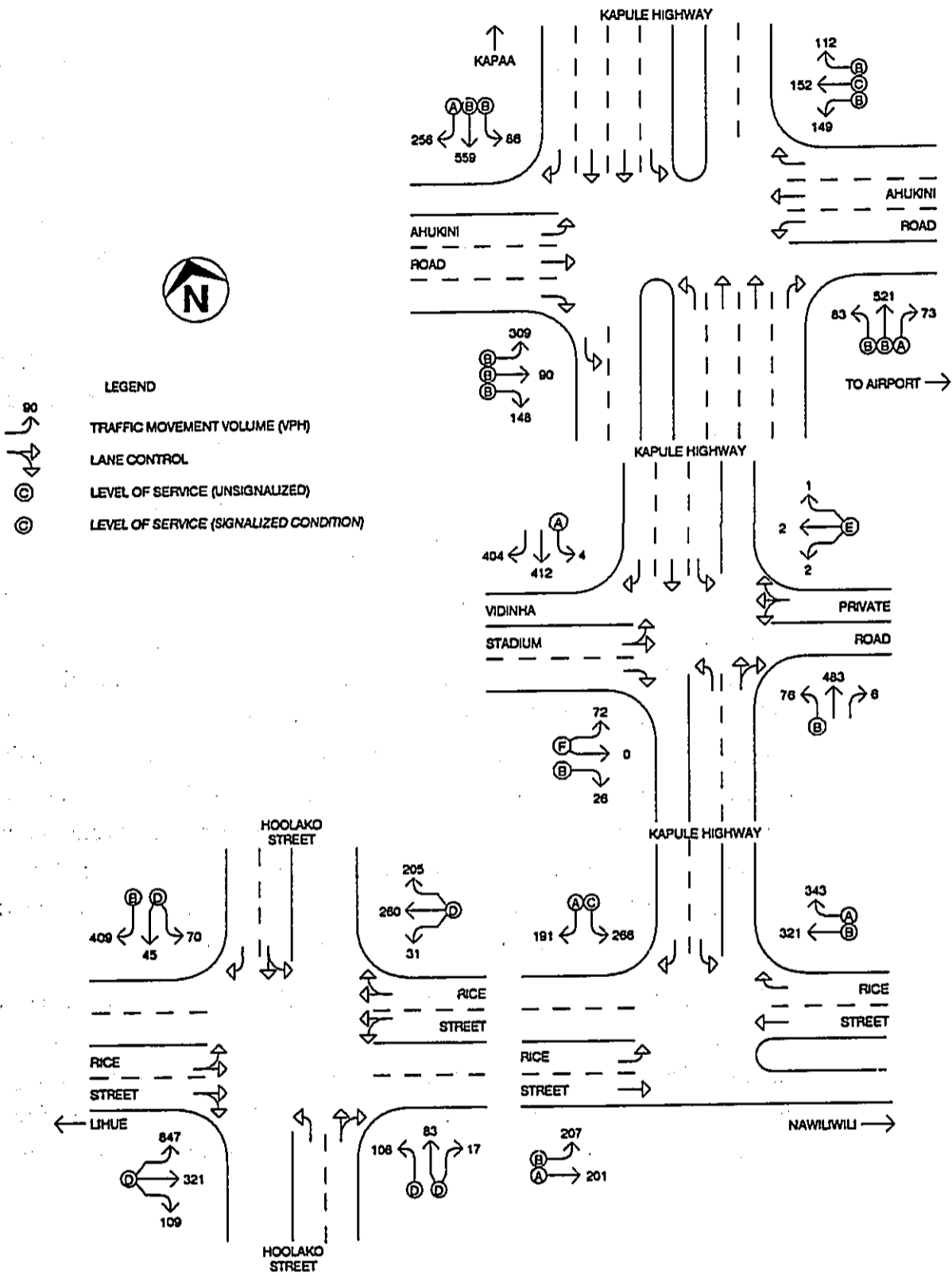


Figure 10. Cumulative Pre-Event Peak Traffic With Project

movement on southbound Hoolako Street to westbound Rice Street are expected to operate at LOS "F". The Rice Street intersections at Hoolako Street and at Kapule Highway are expected to operate at LOS "D" and LOS "B", respectively, after a special event held at the Vidinha Stadium Complex. Since these traffic impacts are associated with special events, operational measures would be appropriate to mitigate these short term effects. Figure 11 depicts the post-event peak hour traffic with the proposed expansion.

E. Parking Impacts

The existing parking lot accommodates about 748 vehicles. An additional 355 parking spaces can be made available on the existing baseball field. The proposed expansion includes a 393-stall parking lot. The parking within the stadium complex would be 1,496 stalls. Another 100 stalls can be accommodated on both sides of Hoolako Street and the Vidinha Stadium Access Road, fronting the stadium complex, for a total of 1,596 stalls.

The vehicle occupancy survey was conducted during the June 1995 Kauai High School graduation ceremony held at Vidinha Stadium. The average vehicle occupancy observed was 2.4 persons per vehicle. Based upon the trip generation study performed for Vidinha Stadium, it is estimated that about 90 percent of vehicles arriving at the stadium complex park on site and the remaining 10 percent drops off their passengers and exit the site. Applying the average vehicle occupancy rate of 2.4 persons per vehicle to a 5,000 person event, about 2,083 vehicles would arrive at the stadium complex prior to the event; 90 percent of which (1,875 vehicles) would require parking on site. The excess parking demand of about 280 vehicles can be accommodated by off-site parking.

The private parking lots in the Lihue Industrial Park are generally not utilized in the evenings and provide opportunities for off-site parking for a fee within walking distance of the stadium complex. Free on street parking in the surrounding neighborhood also is available. Finally, parking and traffic impacts can be further mitigated by transporting people to and from the stadium complex by bus.

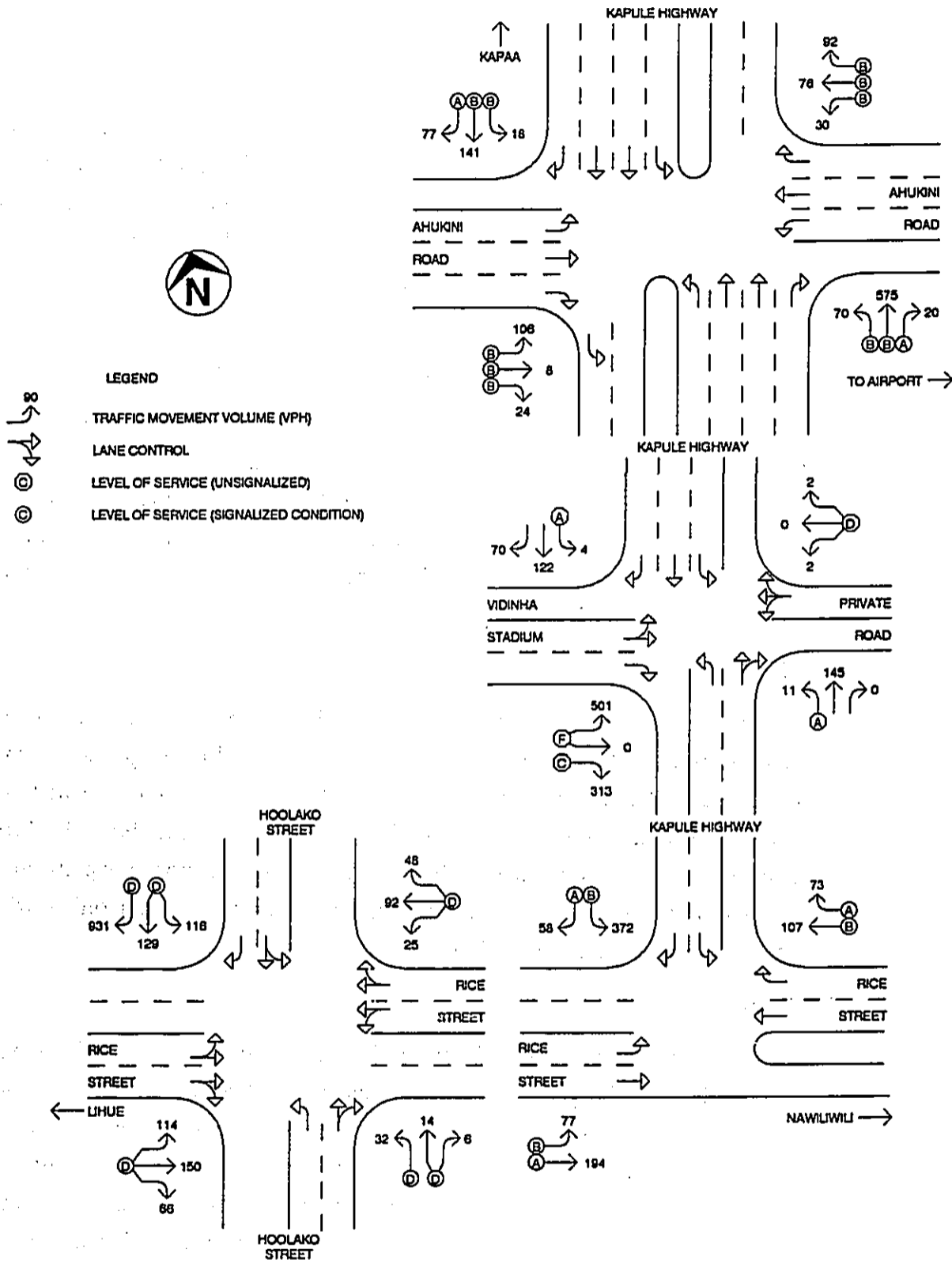


Figure 11. Cumulative Post-Event Peak Traffic With Project

VI. Findings

A. Existing Roadway Deficiencies

The existing PM commuter peak hour traffic demands at the intersection of Rice Street and Kapule Highway meet the MUTCD peak hour volume warrant for traffic signals. Traffic signalization would mitigate the LOS "F" conditions on the left turn movement from southbound Kapule Highway to eastbound Rice Street. Existing traffic demands, during the early and late evening, are relatively light and do not create any significant congestion.

B. Future Roadway Deficiencies Without the Proposed Expansion

Road deficiencies expected by the Year 2001 are primarily a result of Phase I of the Lihue-Hanamaulu Master Plan Development. The intersections of Kapule Highway at Ahukini Road, Rice Street at Kapule Highway, and Rice Street at Hoolako Street operate at LOS "F" during the PM commuter peak hour without the proposed expansion. These Rice Street intersections continue to operate at LOS "F" into the early evening.

C. Site Access

Existing site access is limited to Hoolako Street and the Vidinha Stadium Access Road. The extension of Hoolako Street and other proposed roadways, proposed in the Lihue-Hanamaulu Master Plan Development network, improve access between Lihue and the Vidinha Stadium Complex. Hoolako Street and Rice Street requires traffic signalization without the proposed expansion. Traffic congestion at the Kapule Highway access is expected to occur only during large special events held at the stadium complex.

D. Traffic Impacts

The PM commuter peak hour traffic impacts for the proposed expansion are not significant. Large special events held at the Vidinha Stadium Complex are expected to impact the surrounding streets. While these events may already occur infrequently at the existing stadium, the proposed gymnasium provides additional opportunities for other large events requiring an indoor venue. The traffic, generated by the proposed expansion prior to and after a special event,

occurs during a brief period, where traffic converges and disperses over a one hour period. The traffic impacts generally occur at the access points to the stadium complex.

VII. Recommendations

A. Recommended Improvements Required Without the Proposed Expansion

1. Kapule Highway should be widened to a four-lane divided highway north of Ahukini Road (State-proposed).
2. Rice Street should be widened to four lanes, two through lanes in each direction from Kaumualii Highway to Kapule Highway (County-proposed).
3. Southbound Hoolako Street should be restriped at Rice Street to provide a shared left turn/through lane and an exclusive right turn lane.
4. Northbound Hoolako Street should be restriped at Rice Street to provide an exclusive left turn lane and a shared through/right turn lane.
5. The intersection of Rice Street and Hoolako Street should be signalized (County-proposed).
6. The intersection of Rice Street and Kapule Highway should be signalized.

B. Recommended Access Improvements Required With the Proposed Expansion

1. Kapule Highway should be widened to provide exclusive left turn lanes in both directions at its intersection with the Vidinha Stadium Access Road.
2. Southbound Kapule Highway should be widened to provide an exclusive right turn lane at the Vidinha Stadium Access Road.
3. The Vidinha Stadium Access Road should be widened to provide an exclusive right turn lane and a shared through/left turn lane at Kapule Highway.

C. Operational Measures

Operational measures are recommended to mitigate the special event traffic impacts. Since these traffic impacts are non-recurring and infrequent, operational measures are appropriate to mitigate their effects. A traffic control officer should be stationed at the intersections of Kapule Highway at the Vidinha Stadium Access Road to maintain efficient traffic flow and pedestrian safety.

The traffic control officer at the intersection of Kapule Highway and the Vidinha Stadium Access Road may have to stop traffic on Kapule Highway to permit the stadium complex traffic to safely turn left onto the highway.

After the end of a major event held at the Vidinha Stadium Complex, the lane use controls on southbound Hoolako Street at Rice Street should be modified to permit right turn movement from the shared left turn/through lane, in addition to the exclusive right turn lane. This modification can be accomplished through temporary signing and coning.

D. Traffic Demand Management Actions

Traffic and parking impacts can be mitigated by providing bus service between an off-site parking lot and the stadium complex. During inter-scholastic sporting events, students can be transported between the school campus and the stadium by bus. Other off-site parking facilities can be provide for the general public with bus service to and from the stadium complex. Fees can be charged for parking within the stadium complex to encourage ride-sharing.

VIII. Conclusions

The traffic impacts, resulting from the proposed Vidinha Stadium Complex Expansion, are not expected to be significant during the AM and PM commuter peak hours. Regional traffic improvements are required by other developments planned in the vicinity, without the proposed expansion. The recurring traffic impacts of the proposed stadium expansion, i.e., traffic impacts during the commuter peak hours of traffic, are not considered significant. The most significant traffic impacts are expected to occur during large special events held at the Vidinha Stadium Complex. The recommended traffic improvements, presented herein, are expected to mitigate the traffic impacts resulting from the proposed Vidinha Stadium Complex Expansion.

APPENDIX C

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



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

October 20, 1998

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AKINAKA & ASSOCIATES, LTD.

LAWRENCE MIKE
DIRECTOR OF -E.S.-

In reply, please refer to:

98-208/epo

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka & Associates, Ltd.
250 North Beretania Street, suite 300
Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

Subject: Pre-Assessment Consultation
Vidinha Stadium Complex Expansion
Lihue, Kauai
TMK: 3-6-2: 16 & 18

Thank you for the opportunity to review and comment on the subject project prior to the preparation of a Draft Environmental Assessment (DEA). Based on our review of the document and our on-site survey of the property, we offer the following comments for your consideration.

1. The wastewater generated by the proposed project shall be disposed into the existing County sewer system serving the Lihue area.
2. The proposed project may be impacted by agricultural associated nuisances such as fugitive dust, agricultural burning and pesticide/fertilizer application from the nearby and adjacent sugarcane fields.
3. Noise generated during construction of the project and when the facility is in operation may impact the users of the adjacent Veteran's Center. The applicable requirements of Title 11, Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control," shall be complied with.

Although Chapter 11-46 does not address noise from stadiums and airports, the Kauai District Health Office has already received complaints from the residents of the nearby Molokoa Subdivision of noise from events held at the existing Vidinha Stadium

complex. Complaints of aircraft noise and exhaust emissions from the cars of the participants, spectators and stadium employees have also been received.

4. Fugitive dust emissions during site preparation and construction of the project may impact the nearby residents, businesses, and stadium complex users. This concern and mitigative measures should be addressed to ensure compliance with HAR, Title 11, Chapter 11-60.1, "Air Pollution Control."
5. The solid waste generated by this project (grubbed material, construction waste, etc.) shall be disposed in accordance with the applicable provisions of HAR, Title 11, Chapter 11-58.1, entitled "Solid Waste Management Control." Disposal of any of these wastes by burning is prohibited.
6. The proposed project site is ten (10) acres in size. Unless the stormwater runoff from the project site is contained on the property, it will enter into storm drains that eventually discharge into State waters. In accordance with HAR, Title 11, Chapter 11-55, entitled "Water Pollution Control," the property owner/developer shall be responsible for ensuring that best management practices (BMP) are provided to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters. These measures should be addressed in some detail in the DEA.
7. The property owner/developer shall obtain all applicable permits from the Department of Health, Clean Water Branch, including but not limited to National Pollution Discharge Elimination System (NPDES) permits for storm water, hydrostatic test and dewatering prior to commencing construction.
8. Swimming pools of the size being proposed usually use gaseous chlorine for disinfection. Should a chlorine gas release occur, the businesses, residents and others downwind of the site will be affected. If gaseous chlorine is to be used, the EA should address the precautionary measures that will be taken to prevent releases from occurring.
9. Due to the general nature of the application submitted, we reserve the right to implement future

Mr. Henry S. Morita
October 20, 1998
Page 3

98-208/epo

environmental health restrictions when more detailed
information is submitted.

Should you have any questions, please call Mr. Clyde Takekuma,
District Environmental Health Program Chief, Kauai District
Health Office, at 241-3323.

Sincerely,



BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: KDHO
NR&IAQB
CAB



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CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Bruce S. Anderson, Director
Department of Health
State of Hawaii
P.O. Box 3378
Honolulu, Hawaii 96801

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Anderson:

Thank you for your comment letter, dated October 20, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "The wastewater generated by the proposed project shall be disposed into the existing County sewer system serving the Lihue area."

RESPONSE: All wastewater generated by the proposed project will be disposed into the existing County sewer system. The necessary permits for the proposed discharge will be coordinated with the County's Division of Wastewater Management.
2. COMMENT: "The proposed project may be impacted by agricultural associated nuisances such as fugitive dust, agricultural burning and pesticide / fertilizer application from the nearby and adjacent sugarcane fields."

RESPONSE: The proposed stadium expansion should not incur impacts greater than those already experienced by the existing stadium facilities. The nearby agricultural area will be greatly reduced upon completion of the Molokoa Subdivision Expansion and the planned government facilities. Should impacts from agricultural-related nuisances be excessive, the County will attempt to coordinate events with the Lihue Plantation Company (owner of the adjacent sugar cane fields). The Lihue Plantation Company has been contacted during the pre-assessment consultation period.
3. COMMENT: "Noise generated during construction of the project and when the facility is in operation may impact the users of the adjacent Veteran's Center. The applicable requirements of Title 11, Hawaii Administrative Rules (HAR), Chapter 11-46, "Community Noise Control," shall be complied with.

Although Chapter 11-46 does not address noise from stadiums and airports, the Kauai District Health Office has already received complaints from the residents of the nearby Molokoa Subdivision of noise from events held at the existing Vidinha Stadium complex. Complaints of aircraft noise and exhaust emissions from the cars of the participants, spectators and stadium employees have also been received."

RESPONSE: Unavoidable short-term noise impacts are expected during construction activities. However, these noise impacts will be minimized through compliance with the provisions of Chapter 11-46 and 11-42. Unnecessary noise will be reduced by adequate and proper maintenance of construction equipment and vehicles.

Noise impacts from the proposed project and the anticipated increase of vehicle emissions will be discussed in the draft EA. Additional noise is expected to be produced from the proposed tennis courts and swimming pool area. Since field lights are proposed for the existing baseball field, additional noise may be generated if evening games are held. However, the noise to be generated from the proposed stadium expansion should not be greater than the noise already produced from the existing stadium complex when large events are held.

4. **COMMENT:** "Fugitive dust emissions during site preparation and construction of the project may impact nearby residents, businesses and stadium complex users. This concern and mitigative measures should be addressed to ensure compliance with HAR, Title 11 Chapter 11-60.1, 'Air Pollution Control.'"

RESPONSE: In addition to noise impacts, construction activities are expected to generate short term air quality impacts. Dust controls will be provided by the Contractor and all control measures to be used shall comply with HAR, Title 11, Chapters 59 and 60, as well as all other applicable county ordinances. Short term air quality impacts the proposed mitigative measures will be discussed in the draft EA.

5. **COMMENT:** "The solid waste generated by this project (grubbed material, construction waste, etc.) shall be disposed in accordance with the applicable provisions of HAR, Title 11, Chapter 11-58.1, entitled, 'Solid Waste Management Control.' Disposal of any of these wastes by burning is prohibited."

RESPONSE: All solid waste generated at the construction site of the proposed project shall be properly disposed in accordance with HAR, Title 11, Chapter 11-58.1. No solid waste shall be burned on-site.

6. COMMENT: "The proposed project site is ten (10) acres in size. Unless the stormwater runoff from the project site is contained on the property, it will enter into storm drains that eventually discharge into State waters. In accordance with HAR, Title 11, Chapter 11-55, entitled 'Water Pollution Control,' the property owner/developer shall be responsible for ensuring that best management practices (BMP) are provided to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters. These measures should be addressed in some detail in the DEA."

RESPONSE: The method of disposal for stormwater runoff generated from the proposed project site will be determined in the project's drainage report. Should discharge into the State's storm drain system be required, the appropriate connection and discharge permits will be obtained from the respective State agency. Best management practices to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters shall be addressed in the Draft EA.

7. COMMENT: "The property owner/developer shall obtain all applicable permits from the Department of Health, Clean Water Branch, including but not limited to National Pollution Discharge Elimination System (NPDES) permits for storm water, hydrostatic test and dewatering prior to commencing construction."

RESPONSE: All applicable NPDES permits shall be obtained from the Department of Health, Clean Water Branch prior to the start of construction.

8. COMMENT: Swimming pools of the size being proposed usually use gaseous chlorine for disinfection. Should a chlorine gas release occur, the businesses, residents and others downwind of the site will be affected. If gaseous chlorine is to be used, the EA should address the precautionary measures that will be taken to prevent releases from occurring."

RESPONSE: Should gaseous chlorine be used for the proposed swimming pool, precautionary measures to prevent potential chlorine gas releases shall be discussed in the Draft EA.

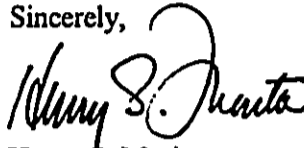
9. COMMENT: "Due to the general nature of the application submitted, we reserve the right to implement future environmental health restrictions when more detailed information is submitted."

RESPONSE: We acknowledge that the Department of Health may implement future environmental health restrictions to the proposed project as more detailed information becomes available.

Page 4
Mr. Anderson
March 5, 1999

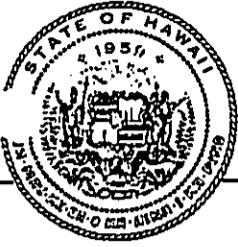
Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI F. NAYA
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Ref. No. P-7331

October 8, 1998

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OCT 14 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Dear Mr. Morita:

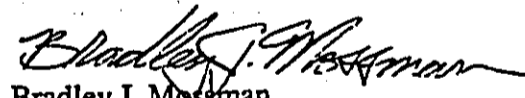
Subject: Pre-Assessment Consultation for the Vidinha Stadium Complex
Expansion Project, Lihue, Kauai, Hawaii, TMK: (4) 3-6-02-16 & 18

Based on the information provided, it is difficult to determine the present land use classification for the proposed project. The draft environmental assessment (EA) should address this as well as incorporate an assessment of the project's compliance with the Coastal Zone Management Program's (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes, in accordance with the Office of Environmental Quality Control's administrative rule.

The EA should also address the potential impacts to water quality due to the proposed expansion of the existing sewer, water and drainage systems. We recommend that a thorough discussion of this issue and the project's mitigation measures to control polluted runoff from the project site during and after construction be incorporated into the document.

If there are any questions, please contact Susan Feeney of our CZM Program at 587-2820.

Sincerely,


Bradley J. Mossman
Director
Office of Planning

cc: Seiji F. Naya



AKINAKA & ASSOCIATES, LTD.

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Bradley Mossman, Director
Office of Planning
Department of Business, Economic Development & Tourism
State of Hawaii
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Mossman:

Thank you for your comment letter, dated October 8, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

- COMMENT:** "Based on the information provided, it is difficult to determine the present land use classification for the proposed project. The draft environmental assessment (EA) should address this as well as incorporate an assessment of the project's compliance with the Coastal Zone Management Program's (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes, in accordance with the Office of Environmental Quality Control's administrative rules."

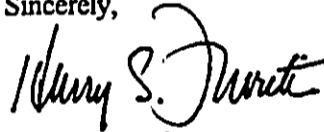
RESPONSE: The land use classification for the proposed project will be addressed in the Draft EA. The County of Kauai, Department of Public Works shall be in compliance with the Coastal Zone Management objectives and policies in accordance with Chapter 205A, HRS and the administrative rules of the Office of Environmental Quality Control.
- COMMENT:** "The EA should also address the potential impacts to water quality due to the proposed expansion of the existing sewer, water and drainage systems. We recommend that a thorough discussion of this issue and the project's mitigation measures to control polluted runoff from the project site during and after construction be incorporated into the document."

Page 2
Mr. Mossman
March 5, 1999

RESPONSE: The appropriate National Pollutant Discharge Elimination System (NPDES) general permits will be secured from the State Department of Health (D.O.H.) to regulate any discharges to State waters. D.O.H. approved best management practices will be employed by the selected Contractor during construction of the proposed drainage improvements. In addition, project specifications will require the Contractor to take appropriate measures during construction to prevent any fuel, oil, or cement products from discharging or leaching into the ocean. The DEA shall discuss the project's mitigative measures to control polluted runoff before and after construction.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

RECEIVED
OCT 8 1998

AKINAKA & ASSOCIATES, LTD.

OCT - 7 1998

In Reply Refer To: LLLW

Mr. Henry Morita
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Re: The Vidinha Stadium Complex Expansion Project, Lihue, Kauai, Hawaii

Dear Mr. Morita:

The U.S. Fish and Wildlife Service (Service) has reviewed your September 24, 1998, letter seeking comments relative to the preparation of a Draft Environmental Assessment (EA) for the proposed expansion of Vidinha Stadium in Lihue, Kauai, Hawaii. The project sponsor is the Department of Public Works, County of Kauai. The project involves initial improvements that may include tennis courts, a swimming pool, and floodlighting for the existing baseball field. If funding is available, improvements may also include a gymnasium and additional parking. The Service offers the following comments for your consideration.

To the best of our knowledge no endangered, threatened, or candidate species, significant wetlands, or other Federal trust resources occur in the immediate project area. However, the Service recommends that the EA address potential impacts of the floodlighting and any other additional outdoor lighting on the federally listed endangered dark-rumped petrel (*Pterodroma phaeopygia sandwichensis*) and Newell's shearwater (*Puffinus newelli*) as well as the wedge-tailed shearwater (*Puffinus pacificus*), which is protected by the Migratory Bird Treaty Act. Although these species do not inhabit the immediate project area, birds flying between offshore feeding grounds and inland nesting areas can become disoriented by the lights and collide with man-made structures that can kill or injure them. Injured seabirds that "fall-out" from collisions are highly vulnerable to predation by dogs and cats. Therefore, the proposed new floodlighting could become an attractive nuisance for these seabirds.


The Service recommends that the following measures be undertaken to minimize project-related impacts to dark-rumped petrels, Newell's shearwaters, and wedge-tailed shearwaters:

1. Light poles should be limited to a height of 25 feet. Lights situated on higher poles are more likely to cause seabird fall-out than lights on lower poles.

2. All lights used in this project should be directed downward, be shaded to prevent light from escaping horizontally, and be as low-wattage as possible. It would be helpful if the lighting is of muted colors instead of a bright white.
3. Mr. Tom Telfer at the Hawaii Division of Forestry and Wildlife, 3060 Eiwa Street, Lihue, Kauai, Hawaii, 96766, should be contacted for other possible recommendations.

The Service appreciates the opportunity to comment. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Lorena Wada at 808/541-3441.

Sincerely,



Robert P. Smith
Pacific Islands Manager

cc: Michael Wilson, DLNR, Honolulu
Tom Telfer, DOFAW, Kauai



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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MICHAEL M. MIYAHIRA, L.P.E.
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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Robert P. Smith, Pacific Islands Manager
Fish and Wildlife Service
U.S. Department of the Interior
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Smith:

Thank you for your comment letter, dated October 7, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "The Service recommends that the following measures be undertaken to minimize project-related impacts to dark-rumped petrels, Newell's shearwaters, and wedge-tailed shearwaters:
 1. Light poles should be limited to a height of 25 feet. Lights situated on higher poles are more likely to cause seabird fall-out than lights on lower poles."
 2. All lights used in this project should be directed downward, be shaded to prevent light from escaping horizontally, and be as low-wattage as possible. It would be helpful if the lighting is of muted colors instead of a bright white.
 3. Mr. Tom Telfer at the Hawaii Division of Forestry and Wildlife, 3060 Eiwa Street, Lihue, Kauai, Hawaii, 96766 should be contacted for other possible recommendations."

RESPONSE: The proposed field lighting will be designed to conform with the Illumination Engineering Society of North America (IES) requirements for a semi-professional facility with 5,000 spectators or less. In order to provide adequate illumination for both the players and spectators, the minimum height for the light pole was determined to be 90 feet. The proposed field lights can be aimed to provide cutoff distribution for glare control.

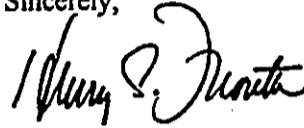
Page 2
Mr. Smith
March 5, 1999

Since the existing baseball field is located in the vicinity of the Lihue airport runway, the proposed field lights will be coordinated with the Federal Aviation Administration for compliance with applicable requirements.

A copy of the Draft EA will be sent to Mr. Tom Telfer for review and comment.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

MARYANNE W. KUSAKA
MAYOR



COUNTY OF KAUAI
PLANNING DEPARTMENT
4444 RICE STREET, SUITE 473
LIHUE, KAUAI, HAWAII 96766

DEE M. CROWELL
PLANNING DIRECTOR
IAN K. COSTA
DEPUTY PLANNING DIRECTOR
TELEPHONE (808) 241-6677
FAX (808) 241-6699

December 7, 1998

Henry S. Morita
Akinaka & Assoc., Ltd.
250 N. Beretania St., Suite 300
Honolulu, Hawaii 06817-4716

RECEIVED
DEC 9 1998
AKINAKA & ASSOCIATES, LTD.

SUBJECT: Pre-Assessment Consultation
Vidinha Stadium Complex Expansion Project
TMK: 3-6-02: 16 & 18 at Lihue, Kauai

In the event you were not aware, the County is in the process of purchasing lands for the Kauai Bus baseyard and Police Station/OEC on the abutting property to the north. The State of Hawaii is also purchasing lands on the same property for a new Judiciary building.

The Police Station/OEC project is being handled by Douglas Haigh of the Building Division and the bus baseyard project is being handled by Virginia Kapali. These people should be contacted.

The County's main concern at this point is the coordination of all of these projects to ensure integration and circulation. This stadium expansion project is a key element in the integration and circulation planning. One of the major concerns which has surfaced is traffic circulation to integrate all of these projects which calls for a roadway or driveway through the stadium expansion area. This matter should be discussed with the Public Works Department, the Kauai Bus office, Police, Civil Defense, and Planning Department. A joint meeting would be preferable.

The integration aspect is important since each project has designated their own parking which creates an abundance of parking, much of which could be avoided if sharing could be feasible.

Should you have any questions, please feel free to contact Keith Nitta of my staff at 241-6677.

DEE M. CROWELL
Planning Director

CC: Public Works



AKINAKA & ASSOCIATES, LTD.

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Ms. Dee M. Crowell, Director
Planning Department
County of Kauai
4444 Rice Street, Suite 473
Lihue, Kauai, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Ms. Crowell:

Thank you for your comment letter, dated December 7, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "In the event you were not aware, the County is in the process of purchasing lands for the Kauai bus baseyard and Police Station / OEC on the abutting property to the north. The State of Hawaii is also purchasing lands on the same property for a new Judiciary building. The Police Station/OEC project is being handled by Douglas Haigh of the Building Division and the bus baseyard project is being handled by Virginia Kapali. These people should be contacted."

RESPONSE: The proposed project will be coordinated with the appropriate agencies that are proposing future facilities in the vicinity of the stadium expansion. These agencies will be sent a copy of the draft EA upon completion for review and comment.

2. COMMENT: The County's main concern at this point is the coordination of all of these projects to ensure integration and circulation. This stadium expansion project is a key element in the integration and circulation planning. One of the major concerns which has surfaced is traffic circulation to integrate all of these projects which calls for a roadway or driveway through the stadium expansion area. This matter should be discussed with the Public Works Department, the Kauai Bus office, Police, Civil Defense, and Planning Department. A joint meeting would be preferable.

The integration aspect is important since each project has designated their own parking which creates an abundance of parking, much of which could be avoided if sharing could be feasible."

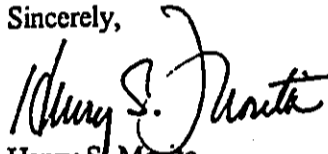
Page 2
Ms. Crowell
March 5, 1999

RESPONSE: A Traffic Impact Assessment Report (TIAR) is currently being prepared for the proposed Vidinha Stadium Complex Expansion project. The TIAR could serve as the basis for additional traffic studies for the overall master plan of the proposed Judiciary and police station facilities.

The proposed stadium expansion project will be coordinated with the Kauai Judiciary Complex, Kauai Police Station and the County Bus Facility projects to promote integration and to minimize unnecessary parking.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



BENJAMIN J. CAYETANO
GOVERNOR

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

LETTER NO. (P) 1669.8

OCT 19 1998

RECEIVED
OCT 20 1998

Mr. Henry Morita
Akinaka & Associates, Ltd.
Consulting Engineers
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

Subject: Vidinha Stadium Complex Expansion
Lihue, Kauai, Hawaii
TMK (4)3-6-02:16 & 18
Pre-Assessment Consultation

Thank you for the opportunity to comment on the proposed project. DAGS and Kauai County staff have been coordinating the design of the Kauai Judiciary Complex, Kauai Police Station, County Bus Facility, and the Vidinha Stadium Complex expansion site. As a result, the site plan attached to your September 24, 1998 letter needs to be substantially revised.

While no firm decisions have been reached, it is our understanding that the integration of all the adjacent facilities are a necessary part of the master site planning for the Judiciary and police station facilities. We further understand that the overall master site plan is being prepared by Urban Works, who is being retained by Kauai County and guided by Mr. Douglas Haig.

If there are any questions regarding the above matter, please call Mr. Ralph Yukumoto of the Planning Branch at 586-0488.

Sincerely,

GORDON MATSUOKA
Public Works Administrator

RY:jj

c: Mr. Cesar Portugal, Kauai County Engineer
Mr. Stanley Doi, DAGS District Engineer
Mr. Douglas Haig, Kauai County DPW
Mr. Jerry Nishida, PMB
Mr. Keith Nitta, Kauai Planning Dep.



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250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Gordon Matsuoka
Public Works Administrator
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Matsuoka:

Thank you for your comment letter, dated October 19, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

1. COMMENT: "DAGS and Kauai county staff have been coordinating the design of the Kauai Judiciary Complex, Kauai Police Station, County Bus Facility, and the Vidinha Stadium Complex expansion site. As a result, the site plan attached to your September 24, 1998 letter needs to be substantially revised."

RESPONSE: Updating the site plan will be coordinated with the appropriate agencies that are proposing future facilities in the vicinity of the stadium expansion. The draft environmental assessment will reflect this revised site plan.

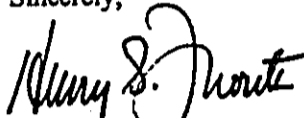
2. COMMENT: "While no firm decisions have been reached, it is our understanding that the integration of all the adjacent facilities are a necessary part of the master site planning for the Judiciary and police station facilities. We further understand that the overall master site plan is being prepared by Urban Works, who is being retained by Kauai County and guided by Mr. Douglas Haig."

RESPONSE: The proposed stadium expansion will be coordinated with the proposed Kauai Judiciary Complex, Kauai Police Station and the County Bus Facility projects to be constructed nearby. The proposed stadium expansion and the overall master plan for the proposed Judiciary and police station facilities are under the direction of the County of Kauai's Department of Public Works.

Page 2
Mr. Matsuoka
March 5, 1999

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

October 15, 1998

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

RECEIVED
OCT 21 1998

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM

AQUATIC RESOURCES
CONSERVATION AND

RESOURCES ENFORCEMENT
CONVEYANCES

FORESTRY AND WILDLIFE
HISTORIC PRESERVATION

DIVISION

LAND DIVISION

STATE PARKS

WATER AND LAND DEVELOPMENT

Henry Morita
Akinaka and Assoc.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

AKINAKA & ASSOCIATES, LTD.

LOG NO: 22331 ✓
DOC NO: 9810NM01

Dear Mr. Morita:

SUBJECT: **Historic Preservation Review -- Pre-Assessment Consultation for Vidinha Stadium Complex Expansion Project (County of Kauai)**
TMK: 3-6-02: 16 & 18
Lihue, Kauai

Thank you for the opportunity to comment on this application. We do not believe that there are any significant historic sites in this area, since the area has already been used for agricultural uses. It is highly unlikely that significant historic sites still exist. Therefore, we believe that this project will have "no effect" on significant historic sites.

If you have any questions, please call Nancy McMahon at 742-7033.

Aloha,

A handwritten signature in black ink, appearing to read "Don Hibbard".

Don Hibbard, Administrator
State Historic Preservation Division

NM:jk



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CONSULTING ENGINEERS
Civil Engineering • Land Planning

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Don Hibbard, Administrator
State Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
601 Kamokila Boulevard, Room #555
Kapolei, Hawaii 96707

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Hibbard:

Thank you for your comment letter dated October 15, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that SHPD anticipates the proposed project to have "no effect" on significant historic sites since the area has previously been disturbed and used for agricultural purposes.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



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

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

October 5, 1998

LD-NAV

REF.: AKINAKA.2RC

Mr. Henry S. Morita, P.E.
 Executive Vice President
 Akinaka & Associates, Ltd.
 250 North Beretania Street, Suite 300
 Honolulu, Hawaii 96717-4716

RECEIVED
 OCT 7 1998

AKINAKA & ASSOCIATES, LTD.

Dear Mr. Morita:

SUBJECT: Pre-Assessment Consultation for the Vidinha Stadium Complex Expansion Project Lihue, Kauai, Hawaii

We have received your letter dated September 24, 1998, informing us of the proposed project and requesting our Department's review and comments prior to the preparation of a Draft Environmental Assessment.

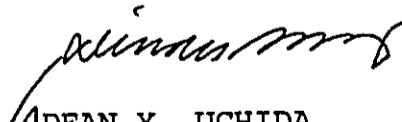
In general the Department's review of proposed projects is to comment on issues affecting the following resources:

- | | |
|-------------------------|-------------------------|
| - Water Resources | - Historic |
| - Wildlife and Forestry | - Shoreline |
| - Aquatic Resources | - Natural Area Reserves |
| - Conservation Land | - Ocean Recreation |
| - State Owned Land | - Beaches |
| - State Interest | - Eco System |
| - Streams | - Ocean |

In order for this Department to provide better service to you and your client, please provide to us information relevant to the above.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division at 1-808-587-0438.

Very truly yours,


 DEAN Y. UCHIDA
 Administrator

c: Kauai Land Board Member
 Kauai District Land Office



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

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MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURAKAKA, L.P.E.

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Dean Uchida, Administrator
Land Division
State Department of Land and Natural Resources
P.O. Box 621
Honolulu, Hawaii 96809

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Uchida:

Thank you for your comment letter, dated October 5, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "In general the Department's review of proposed projects is to comment on issues affecting the following resources:


- | | |
|-------------------------|-------------------------|
| - Water Resources | - Historic |
| - Wildlife and Forestry | - Shoreline |
| - Aquatic Resources | - Natural Area Reserves |
| - Conservation Land | - Ocean Recreation |
| - State Owned Land | - Beaches |
| - State Interest | - Eco System |
| - Streams | - Ocean |

In order for this Department to provide better service to you and your client, please provide to us information relevant to the above."

RESPONSE: The draft EA shall discuss the appropriate resource issues relating to the proposed project.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII



STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P.O. BOX 1879
HONOLULU, HAWAII 96805

KALI WATSON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

October 2, 1998

RECEIVED
OCT 6 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

Dear Mr. Morita:

Subject: Pre-Assessment Consultation for the Vidinah Stadium
Complex Expansion Project, TMK 3-6-2:16 & 18,
Lihue, Kauai, Dated September, 1998

Thank you for the opportunity to review the subject document.
The Department of Hawaiian Home Lands has no comment to offer.

If you have any questions, please call Daniel Ornellas at
586-3837.

Aloha,

fn
Daniel Ornellas
KALI WATSON, Chairman
Hawaiian Homes Commission



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Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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HENRY S. MORITA, L.P.E.
SHELDON T. YANASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Raymond Soon, Chairman
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, Hawaii 96805

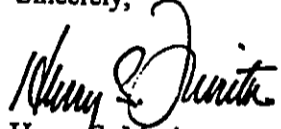
RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Soon:

Thank you for your letter dated October 2, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that you have no comments to offer at this time.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



United States
Department of
Agriculture
Natural
Resources
Conservation
Service

P.O. Box 50004
Honolulu, HI
96850

Our People...Our Islands...In Harmony

October 28, 1998

Mr. Henry S. Morita, P.E.
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

RECEIVED
OCT 30 1998

AKINAKA & ASSOCIATES, LTD.


Dear Mr Morita:

Subject: Pre-Assessment Consultation for the Vidinha Stadium Complex Expansion
Project, Lihue, Kauai, Hawaii

We have reviewed the above mentioned document and have no comments to offer at
this time.

Thank you for the opportunity to review this document.

Sincerely,


KENNETH M. KANESHIRO
State Conservationist

The Natural Resources Conservation Service works hand-in-hand with
the American people to conserve natural resources on private lands.

AN EQUAL OPPORTUNITY EMPLOYER



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SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. CANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Kenneth M. Kaneshiro
State Conservationist
Natural Resource Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Kaneshiro:

Thank you for your letter dated October 28, 1998 in response to the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We acknowledge that you have no comments to offer at this time.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit any comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR



KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAII
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KAUAI DISTRICT
3060 EIWA STREET, ROOM 205
LIHUE, HAWAII 96766

IN REPLY REFER TO:

HWY-KE 4.980997

RECEIVED
OCT 6 1998

October 2, 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry Morita
Akinaka & Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817-4716

Dear Mr. Morita:

**Subject: Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project
Lihue, Kauai, Hawaii
TMK: (4)3-6-02:16 & 18**

Review of the General Layout for the proposed project has been completed and we have the following comments:

1. Other than the current access permitted openings, no new access openings shall be permitted to the complex site from Kapule Highway.
2. No storm runoff from the site shall be directed onto the Kapule Highway R/W. All site runoff shall be handled by internal drainage systems outletting into existing or new closed systems. Site drainage report shall be prepared and submitted to the State Highways Division for review
3. Appropriate landscaping within the County parcel, should be provided along the entire frontage to Kapule Highway.
4. No parking will be allowed within the Kapule Highway R/W.

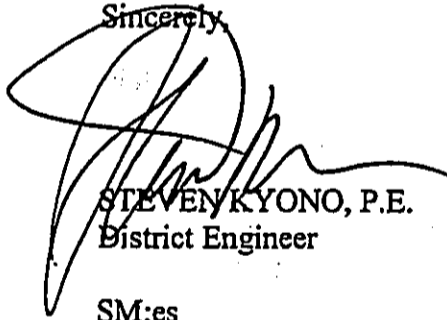
Mr. Henry Akinaka
Page 2
October 2, 1998

HWY-KE 4.980997

5. A Traffic Impact Assessment Report (TIAR) shall be prepared and submitted to the Highways Division for review. The TIAR shall address traffic impacts on Kapule Highway due to the expansion of the sports complex facilities. At the existing access road to the stadium complex, we recommend that left turn storage lanes & acceleration/deceleration lanes be constructed on Kapule Highway.
6. Street lights shall be provided at the Kapule Highway/stadium access road intersection.
7. Draft EA shall be submitted to the State Highways Division for review/comments.
8. This office reserves the right to impose additional conditions upon review of the Draft EA.

Thank you for giving us the opportunity to review and comment on the preliminary proposal for the County of Kauai Sports Complex expansion. If you have any questions, please call Steve Morikawa at 274-3118.

Sincerely,



STEVEN KYONO, P.E.
District Engineer

SM:es

10 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Steven Kyono, District Engineer
Kauai District
Highways Division
State Department of Transportation
3060 Eiwa Street, Room 205
Lihue, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Kyono:

Thank you for your comment letter, dated October 2, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "Other than the current access permitted openings, no new access openings shall be permitted to the complex site from Kapule Highway."

RESPONSE: No new access openings from Kapule Highway are planned for the proposed stadium complex expansion. The proposed expansion area will be accessed via the existing Vidinha Stadium Access Road which is located between Kapule Highway and Hooloko Street, on the southern side of the project site. Improvements to the Vidinha Stadium Access Road and Kapule Highway intersection are proposed in the project's traffic impact assessment report.

2. COMMENT: "No storm runoff from the site shall be directed onto the Kapule Highway R/W. All site runoff shall be handled by internal drainage systems outletting into existing or new closed systems. Site drainage report shall be prepared and submitted to the State Highways Division for review."

RESPONSE: The disposal of stormwater runoff to be generated from the proposed project site will be determined in the project's drainage report. No surface runoff from the project site will be directed to the Kapule Highway right-of-way. Should discharge into the State's storm drain system be required, the appropriate connection and discharge permits will be obtained from the respective State agency. Best management practices to prevent or minimize the discharge of sediments, debris, and other water pollutants into state waters shall be addressed in the Draft EA.

3. COMMENT: "Appropriate landscaping within the County parcel, should be provided along the entire frontage to Kapule Highway."

RESPONSE: Landscaping will be limited to the proposed stadium expansion area. Existing oleander planting will remain along the baseball and football fields.
4. COMMENT: "No parking will be allowed within the Kapule Highway R/W."

RESPONSE: Parking stalls are not planned within the Kapule Highway right-of-way.
5. COMMENT: "A Traffic Impact Assessment Report (TIAR) shall be prepared and submitted to the Highways Division for review. The TIAR shall address traffic impacts on Kapule Highway due to the expansion of the sports complex facilities. At the existing access road to the stadium complex, we recommend that left turn storage lanes & acceleration/deceleration lanes be constructed on Kapule Highway."

RESPONSE: A Traffic Impact Assessment Report for the proposed project is being prepared by the Traffic Management Consultant. Upon completion, a copy of the TIAR will be submitted to the Highways Division for review.
6. COMMENT: "Street lights shall be provided at the Kapule Highway/stadium access road intersection."

RESPONSE: Street lights to illuminate the intersection will be provided.
7. COMMENT: "Draft EA shall be submitted to the State Highways Division for review/comments."

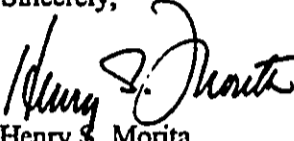
RESPONSE: Upon completion, a copy of the Draft EA shall be sent to the State Highways Division for review. The Division is welcome to submit any comments during the 30-day comment period which commences once the Draft EA is published in the Office of Environmental Quality Control's bulletin.
8. COMMENT: "This office reserves the right to impose additional conditions upon review of the Draft EA."

RESPONSE: We acknowledge that the State Department of Transportation-Highways Division may impose additional conditions to the proposed project as more detailed information becomes available and the Draft EA is reviewed.

Page 3
Mr. Kyono
March 5, 1999

Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

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NOV 13 1998

AKINAKA & ASSOCIATES, LTD.

November 4, 1998

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka & Associates, Ltd.
250 North Beretania Street, Ste. 300
Honolulu, HI 96817-4716

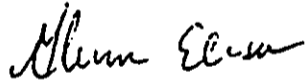
Re: Vidinha Stadium Complex

Dear Mr. Morita:

In response to your letter of September 24, 1988, our Board of Directors reviewed your project and are in support of the expansion of the stadium complex. We have some concern over parking as currently when there is a large gathering at the stadium the overflow parking covers the entire area where the current soccer field is located. Some provision for additional parking will need to be addressed.

Please keep us advised as to the progress of the project.

Sincerely,



Glen Ebesu
President
Lihue Industrial Park II Association



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MICHAEL M. MIYAHIRA, L.P.E.
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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Mr. Glen Ebesu, President
Lihue Industrial Park II Association
c/o P.O. Box 22
Hanapepe, Hawaii 96716

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Ebesu:

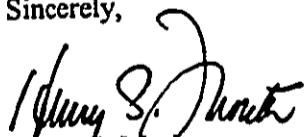
Thank you for your comment letter, dated November 4, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment (DEA). We offer the following responses to your comments:

COMMENT: "We have some concern over parking as currently when there is a large gathering at the stadium the overflow parking covers the entire area where the current soccer field is located. Some provision for additional parking will need to be addressed."

RESPONSE: The proposed project includes provisions for an additional parking facility where the existing soccer field is located. Parking areas constructed with other government facilities adjacent to the sports complex could be used for overflow parking. A masterplan which involves the coordination of these parking areas is currently under development by the County of Kauai's Department of Public Works.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,


Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAII
GLENN M. OKIMOTO

IN REPLY REFER TO:

STP 8.8847

October 2, 1998

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OCT 6 1998

AKINAKA & ASSOCIATES, LTD.

Mr. Henry S. Morita, P.E.
Executive Vice President
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, Hawaii 96817

Dear Mr. Morita:

Subject: Vidinha Stadium Complex Expansion Project
Pre-Assessment Consultation
TMK: (4) 3-6-02-16 & 18
Lihue, Kauai

Thank you for your letter of September 24, 1998 requesting our comments on the subject project.

A traffic assessment should be prepared for our review which reflects the full build out of the stadium complex as well as other planned major developments in the area, including Amfac's Lihue-Hanamaulu Master Planned community. This traffic assessment should identify the impacts and mitigation measures the project will have on the State transportation facilities.

We appreciate the opportunity to provide comments.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Kazu Hayashida".

KAZU HAYASHIDA
Director of Transportation



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
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MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Mr. Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Hayashida:

Thank you for your comment letter, dated October 2, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

COMMENT: "A traffic assessment should be prepared for our review which reflects the full build out of the stadium complex as well as other planned major developments in the area, including Amfac's Lihue-Hanamaulu Master Planned community. This traffic assessment should identify the impacts and mitigation measures the project will have on the State transportation facilities."

RESPONSE: A Traffic Impact Assessment Report for the proposed project is being prepared by the Traffic Management Consultant. The TIAR will incorporate the future traffic impacts from the proposed stadium expansion as well as anticipated impacts from the Lihue-Hanamaulu Master Planned community. Upon completion, a copy of the TIAR will be submitted to the Highways Division for review. A master plan for traffic circulation and parking area coordination is currently under development by the County of Kauai.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments on the DEA during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,

Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

DEPARTMENT OF WATER

County of Kauai

"Water has no Substitute -- Conserve It!"

October 22, 1998

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OCT 24 1998

AKIHAKA & ASSOCIATES, LTD.

Mr. Henry Morita
Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

Dear Mr. Morita:

RE: Vidinha Stadium Complex Expansion Project, TMK:3-6-02:16 &18, Lihue, Kauai

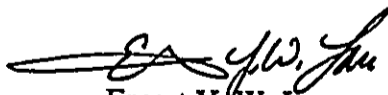
In response to your letter of September 24, 1998, we offer the following. Any actual subdivision or development will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the source facilities are operating at capacity. Development will be limited to the equivalent water use of three (3) dwelling units per lot until adequate source facilities are provided.

Prior to building permit or water meter approval, the applicant shall:

1. Submit for review and approval water demand calculations for the project. The Department will determine if the existing facilities at that time are adequate for the proposed use.
2. Prepare and receive Department of Water's approval of construction drawings for necessary water system facilities and construct said facilities. These facilities shall include but not be limited to:
 - a. The domestic service connections
 - b. The interior plumbing plans with the appropriate backflow preventer.
3. Pay the applicable charges in effect at the time of payment to the Department of Water. These charges will be determined by the approved construction drawings.
4. Receive a "Certification of Completion" from the Department of Water for the completion of the necessary water system facilities.

If you have any questions to this information, please call Keith Aoki at 245-5418.

Sincerely,



Ernest Y. W. Lau
Manager & Chief Engineer
KA\akinaka1.doc



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CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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HENRY S. MORITA, L.P.E.
SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

March 5, 1999

Mr. Ernest Y. W. Lau
Manager and Chief Engineer
Department of Water
County of Kauai
4398 Pua Loke Street
Lihue, Kauai, Hawaii 96766-5706

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Mr. Lau:

Thank you for your comment letter, dated October 22, 1998, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "Any actual subdivision or development will be dependent on the adequacy of the source, storage and transmission facilities existing at that time. At the present time, the source facilities are operating at capacity. Development will be limited to the equivalent water use of three (3) dwelling units per lot until adequate source facilities are provided."

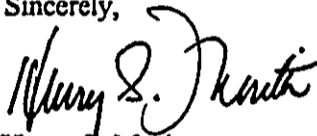
RESPONSE: The water use requirements for the proposed project is anticipated to exceed the available system capacity. Thus, the water use requirements for the proposed project will be coordinated with the Department of Water.
2. COMMENT: "Prior to building permit or water meter approval, the applicant shall:
1. Submit for review and approval water demand calculations for the project. The Department will determine if the existing facilities at that time are adequate for the proposed use.
2. Prepare and receive Department of Water's approval of construction drawings for necessary water system facilities and construct said facilities. These facilities shall include but not be limited to: a. The domestic service connections b. The interior plumbing plans with the appropriate backflow preventer.
3. Pay the applicable charges in effect at the time of payment to the Department of Water. These charges will be determined by the approved construction drawings.
4. Receive a 'Certification of Completion' from the Department of Water for the completion of the necessary water system facilities."

Page 2
Mr. Lau
March 5, 1999

RESPONSE: Upon completion, water demand calculations, and construction drawings for the proposed project will be submitted to the Department of Water for review and approval. Applicable charges will be paid at the proper time and a "Certification of Completion" will be secured from the Department of Water.

Upon publication of the DEA in the Office of Environmental Quality Control's bulletin, you are welcome to submit additional comments during the 30-day review period. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai



Amfac Land Company, Limited • Kauai Division

2970 Kele Street • Lihue, Kauai, Hawaii 96766

RECEIVED
JAN 20 1999

AKINAKA & ASSOCIATES, LTD.

January 18, 1999

Akinaka and Associates, Ltd.
250 North Beretania Street, Suite 300
Honolulu, HI 96817

Attn.: Henry Morita

Re: Pre-Assessment Consultation for Vidinha Stadium Complex Expansion Project

Dear Mr. Morita:

This is an overdue response to your letter dated September 24, 1998 regarding the above project. We have concerns regarding the compatibility of this use with our abutting agricultural operations. Our agricultural activities on the abutting parcel involve spraying and aerial applications of various chemicals, as well as the generation of dust during harvesting and plowing which could be a problems for this swimming pool. Weed control along the boundaries may be a problem as well as rodent control. We would recommend that the design provide for as much buffer area as possible.

Also, aside from our own interests, it seems that it would be prudent to integrate access to this area with access to the proposed Police/EOC facility on the adjacent land for flexibility of use and parking.

Please provide us with a copy of the environmental assessment when it is complete so we can review further. I can be reached at (808) 245-7687 if you need anything further.

Very truly yours,
AMFAC LAND COMPANY, LTD.,
Agent for AMFAC SUGAR KAUAI

Dorothy R. Bekeart
Land Manager

Telephone: 808-245-8786 • Facsimile: 808-246-9549



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

ROBERT Y. AKINAKA, L.P.E.
HENRY S. MORITA, L.P.E.
SHELDON T. YAMASATO, L.P.E.
MICHAEL M. MIYAHIRA, L.P.E.
BARRY K. MURANAKA, L.P.E.

SALVADOR M. QUITORIANO, L.P.L.S.
BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

March 5, 1999

Ms. Dorothy R. Bekeart, Land Manager
Amfac Land Company, Limited - Kauai Division
2970 Kele Street
Lihue, Kauai, Hawaii 96766

RE: Response to Comments Regarding Pre-Assessment Consultation for the
Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment
Lihue, Kauai, Hawaii (TMK: 3-6-02:16 & 18)

Dear Ms. Bekeart:

Thank you for your comment letter, dated January 18, 1999, during the pre-assessment consultation period for the Vidinha Stadium Complex Expansion Project - Draft Environmental Assessment. We offer the following responses to your comments:

1. COMMENT: "We have concerns regarding the compatibility of this use with our abutting agricultural operations. Our agricultural activities on the abutting parcel involve spraying and aerial applications of various chemicals, as well as the generation of dust during harvesting and plowing which could be a problem for this swimming pool. Weed control along the boundaries may be a problem as well as rodent control. We would recommend that the design provide for as much buffer area as possible."

RESPONSE: The anticipated impacts to the proposed stadium expansion from adjacent agricultural activities should not be greater than those already experienced by the existing stadium facilities. Some buffer area will be provided by the future government and quasi-government facilities to the north of the project site. In addition, the adjacent agricultural area will be greatly reduced upon completion of the Molokoa Subdivision Expansion.

2. COMMENT: "Also, aside from our own interests, it seems that it would be prudent to integrate access to this area with access to the proposed Police/EOC facility on the adjacent land for flexibility of use and parking."

Page 2
Ms. Dorothy Bekeart
March 5, 1999

RESPONSE: The future facilities in the area of the Vidinha Stadium Complex Expansion site include the proposed Kauai Judiciary Complex, Kauai Police/EOC Facility and the Kauai bus baseyard. The entire area, including the proposed stadium expansion project and the existing Veteran's Center are currently being coordinated with the appropriate agencies representing these future facilities to promote integration of parking and traffic circulation.

Per your request, a copy of the Draft EA will be sent to you upon completion. You are welcome to submit any comments during the 30-day review period which commences when the Draft EA is published in the Office of Environmental Quality Control's bulletin. Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Sincerely,



Henry S. Morita
Executive Vice-President

cc: Mr. Wally Kudo, Department of Public Works, County of Kauai

APPENDIX D

MARYANNE W. KUSAKA
MAYOR



PLANNING DEPARTMENT

DEE M. CROWELL
PLANNING DIRECTOR
SHELLAH N. MIYAKE
DEPUTY PLANNING DIRECTOR
TELEPHONE (808) 241-6677
FAX (808) 241-6699

March 24, 2000

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AKINAKA & ASSOCIATES, LTD.

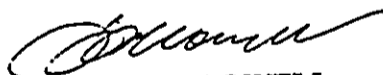
Wallace Kudo
Department of Public Works
4444 Rice Street
Lihue, Kauai HI 96766

SUBJECT: Draft Environmental Assessment for the Vidinha Stadium Expansion at Lihue, Kauai (TMK: 3-6-02: 16 and 18)

The State Land Use District (SLUD) boundary for the subject property is Agricultural and the zoning is Agriculture District (A). The Land Classification for the property is "B." Therefore, the proposed project will require a Special Permit, a Use Permit, and a Class IV Zoning Permit from the Planning Commission. There is a possibility at this point that a Variance Permit may be required to address the lot coverage of the project. We will have to discuss this matter with your office. Please contact us to arrange a meeting involving permitting for the project.

As stated in our December 7, 1998 correspondence, our concern is that this project integrate with other projects in the area in terms of traffic circulation and parking. We realize that plans for the project are nearing completion, nevertheless, provisions should be made to allow for modifications in the future that will improve traffic circulation and integration of parking.

Thank you for allowing us this opportunity to comment and should you have any questions, please feel free to contact Keith Nitta of my staff at 241-6677.


DEE M. CROWELL
Planning Director

CC: Henry Morita



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CONSULTING ENGINEERS
Civil Engineering • Land Planning

250 NORTH BERETANIA STREET, SUITE 300, HONOLULU, HAWAII 96817-4716 • TELEPHONE (808) 536-7721 • FAX (808) 521-2153 • E-mail: akinaka@aloha.net

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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

FILE COPY

August 3, 2000

Mr. Dee Crowell, Director
Department of Planning
County of Kauai
4444 Rice Street, Suite 473
Building "A"
Lihue, Hawaii 96766

Attention: Mr. Keith Nitta (241-6677)

PROJECT: VIDINHA STADIUM COMPLEX EXPANSION
KAUAI DEPARTMENT OF PUBLIC WORKS
LIHUE, KAUAI, HI. (TMK: 3-6-02:16 7 18)

Subject: Draft Environmental Assessment

Reference: Planning Department letter dated March 24, 2000

In response to the reference, we provide the following:

1. **Comment:** The State Land Use District (SLUD) boundary for the subject property is Agricultural and the zoning is Agriculture District (A). The Land Classification for the property is "B". Therefore, the proposed project will require a Special Permit, a Use Permit, and a Class IV Zoning Permit from the Planning Commission.

Response: Permit applications will be submitted to the Planning Commission when the design concepts are established. The final EA will include these permits as project requirements.

2. **Comment:** There is a possibility at this point that a Variance Permit may be required to address the lot coverage of the project. We will have to discuss this matter with your office. Please contact us to arrange a meeting involving permitting for the project.

Response: The Department of Public Works will request a meeting to discuss this matter.

Mr. Dee Crowell
August 3, 2000
Page 2

3. **Comment:** As stated in our December 7, 1998 correspondence, our concern is that this project integrate with other projects in the area in terms of traffic circulation and parking. We realize that plans for the project are nearing completion, nevertheless, provisions should be made to allow for modifications in the future that will improve traffic circulation and integration of parking.

Response: Traffic circulation and parking integration have been subjects of coordination meetings between project managers of the various projects in the area. The final plans will reflect the results of these meetings.

Should you have any questions or require additional information, please contact me at 536-7721. Thank you for your time.

Very truly yours,



Henry S. Morita
Executive Vice President

cc: Mr. Wallace Kudo, KDPW
HSM:cyk
PDK0024L.WPF

BENJAMIN J. CAYETANO
GOVERNOR



GENEVIEVE SALMONSON
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 588-4186
FACSIMILE (808) 588-4186

March 24, 2000

Cesar Portugal
Kauai Department of Public Works
4444 Rice Street
Lihue HI 96766

Attn: Wally Kudo

Subject: Vidinha Stadium Complex Expansion, Lihue

Dear Mr. Portugal:

We have the following comments to offer:

1. Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.
2. Bird strikes: The October 7, 1998 letter from the US Fish & Wildlife Service recommends poles heights not exceeding 25 feet in order to reduce the likelihood of bird strikes. The draft EA, however, notes that light poles will be 90 feet high to provide adequate illumination. Include the Service in your draft EA distribution so that additional consultation can be made on this issue.
3. Exhibit 2: The scale for this exhibit ("1 = 1") need to have the units of measurement included. Please make this correction in the final EA.
4. Swimming pool: Consult the Sanitation Branch of the Department of Health for an approval to construct and a permit to operate a swimming pool. Include this in your list of permits in the final EA.
5. Timeframe: What are the anticipated start and end dates of this project?
6. Community contacts: In the final EA list the dates of any public informational meetings and the issues that were raised.

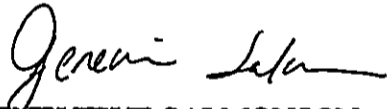
Cesar Portugal
March 24, 2000
Page 2

7. Runoff: This property was formerly used for agriculture. For this project the surface will change from soil to an impervious surface. The adjacent parcels are slated for development as the Judiciary and the Police Station, along with their respective parking lots, all to have impervious surfaces. How will runoff in this area be affected by this increase in hard surfaces? The draft EA mentions discussion of this issue in the "Facilities Planning Report." In the final EA include a thorough analysis of runoff and any related mitigation measures. You may use the text from the Report if it includes these items.

8. Traffic: We question the conclusion of negligible impact from the complex's increased traffic. The traffic projection in the Traffic Impact Analysis Report (TIAR) in the draft EA is based on an assumption of a 3% population growth rate. Additionally the TIAR is now 6 years old. Recent data for the past decade from the Department of Business, Economic Development and Tourism show an 11.8% population increase for the island and a nearly 18% increase for Lihue District. In the final EA include an updated traffic analysis and impacts projection and what mitigation measures you propose to minimize these impacts.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,



GENEVIEVE SALMONSON
Director

c: Henry Morita, Akinaka & Assoc.



AKINAKA & ASSOCIATES, LTD.

CONSULTING ENGINEERS
Civil Engineering • Land Planning

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JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A. INFANTE

FILE COPY

August 3, 2000

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 So. Beretania St., Room 702
Honolulu, Hawaii 96813

Attention: Nancy Heinrich (586-4185)

Project: Vidinha Stadium Complex Expansion
Kauai Department of Public Works
Lihue, Kauai, HI. (TMK: 3-6-02: 16 & 18)

Subject: Draft Environmental Assessment

Reference: OEQC letter dated March 24, 2000

In response to comments contained in the reference, we offer the following response:

1. Comment: Two-sided pages: In order to reduce bulk and save on paper, please consider printing on both sides of the pages in the final document.

Response: We will consider printing on both sides of the page in the final document.

2. Comment: Bird strikes: The October 7, 1998 letter from the US Fish & Wildlife Service recommends poles heights not exceeding 25 feet in order to reduce the likelihood of bird strikes. The draft EA, however, notes that light poles will be 90 feet high to provide adequate illumination. Include the Service in your draft EA distribution so that additional consultation can be made on this issue.

Response: Further consultation with the US Fish & Wildlife (Gordon Smith @ 541-3441) resulted in no additional comments. It should be noted that the new baseball field lights are lower than the adjacent football field lights.

3. **Comment:** Exhibit 2: The scale for this exhibit ("1 = 1") need to have the units measurement included. Please make this correction in the final EA.

Response: Scale for this exhibit is shown adjacent to the north arrow.

4. **Comment:** Swimming pool: Consult the Sanitation Branch of the Department of Health for an approval to construct and a permit to operate a swimming pool. Include this in your list of permits in the final EA.

Response: HAR Title 11, Chapter 13A, "Public Swimming Pools" requires that plans for public swimming pools must be authorized by the Director of Health. A permit to operate a public swimming pool must be obtained from the Department Health. These requirements will be added to the final Ea list of permits. The County of Kauai operates several public swimming pools and is very familiar with the Health Department Regulations.

5. **Comment:** Timeframe: What are the anticipated start and end dates of this project?

Response: The project will be implemented in several phases. It is expected that the baseball field lighting will be the initial phase followed by the tennis courts, swimming pool then gymnasium. Anticipated start could be in the spring of 2001 with the end date dependent on availability of funds.

6. **Comment:** Community contacts: In the final EA list the dates of any public informational meetings and the issues that were raised.

Response: The first public informational meeting was held on June 29, 1994 at the Kauai War Memorial Hall in Lihue. This meeting was general in nature to elicit community desires. Repair and upgrading of existing facilities were requested to be the initial priority. Temporary use of the expansion area for soccer was requested to continue.

The second public informational meeting was held on November 30, 1995 at the Lihue Neighborhood Center. Dual use of the tennis courts for roller blading was expressed.

Ms. Genevieve Salmonson
August 3, 2000
Page 3

Other items discussed at both informational meetings will be included in the final EA.

7. **Comment:** Runoff: This property was formerly used for agriculture. For this project the surface will change from soil to an impervious surface. The adjacent parcels are slated for development as the Judiciary and the Police Station, along with their respective parking lots, all to have impervious surfaces. How will runoff in this area be affected by this increase in hard surfaces? The draft EA mentions discussion of this issue in the "Facilities Planning Report." In the final EA include a thorough analysis of runoff and any related mitigation measures. You may use the text from the Report if it includes these items.

Response: The Environmental assessment is for the Vidinha Stadium Expansion. We believe that separate EA have been submitted by the County and the State for the Police and Judiciary complex. Please refer to the EA's developed for each project. Insofar as the Vidinha Stadium Expansion the project develops 10 acres in a drainage area that is approximately 200 acres in size. There would be a very nominal increase in storm flowages. Best management practice of draining storm water through natural swales and water courses and its long travel path will help reduce pollutants."

8. **Comment:** Traffic: We question the conclusion of negligible impact from the complex's increased traffic. The traffic projection in the Traffic Impact Analysis Report (TIAR) in the draft EA is based on an assumption of a 3% population growth rate. Additionally the TIAR is now 6 years old. Recent data for the past decade from the Department of Business, Economic Development and Tourism show an 11.8% population increase for the island and a nearly 18% increase for Lihue District. In the final EA include an updated traffic analysis and impacts projection and what mitigation measures you propose to minimize these impacts.

Response: Mitigation measures such as signalization of intersections will be implemented as required. The Halau Street and Kapule Highway intersection have recently been Signalized. Traffic from the project would access Kapule Highway through Halau Street. Future plans could also include signalizing the stadium driveway and Kapule Highway.

Ms. Genevieve Salmonson
August 3, 2000
Page 4

Should have any questions or require additional information, please contact me at 536-7721. Thank your for your time.

Very truly yours,

Henry S. Morita
Executive Vice President

cc: Mr. Wallace Kudo, KDPW
OEQC014L.WPD

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University of Hawai'i at Mānoa

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A Unit of Water Resources Research Center
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Telephone: (808) 956-7381 • Facsimile: (808) 956-3980

April 26, 2000
EA: 00206

Mr. Wally Kudo
County of Kaua'i
Department of Public Works
4444 Rice Street
Lihue Hawaii 96766

Dear Mr. Kudo:

Draft Environmental Assessment
Vidinha Stadium Complex Expansion
Lihue, Kaua'i

The project involves the development of a vacant 10-acre parcel adjacent to the existing Vidinha Stadium facility. County of Kauai Department of Public Works development plans include a swimming pool, tennis courts, and field lighting for the existing baseball field. A gymnasium complex and parking are also planned, providing funding is available.

This review was conducted with the assistance of Marshall Mock, Physical Sciences, Kauai Community College (CC); Tracy Tucker, Computer Specialist, Kauai CC; Don Heacock, Department of Land and Natural Resources, and Sherri Hiraoka, Environmental Center.

General Comments

Expansion and upgrading recreational facilities will benefit many on Kaua'i that may not have access to swimming pools and tennis courts, etc. The improvements planned for the Vidinha Stadium seem in keeping with the use of the area and have the support of the community. We commend the county for seeking the participation of the community in committing to such an ambitious expansion of recreational facilities. Though our reviewers felt the project has many positive aspects, there were many issues that need to be discussed in greater detail in the environmental assessment (EA). In our review of the Draft EA, we cite these areas.

Mr. Kudo
April 26, 2000
Page 2

Proposed Improvements

We are not clear on the intent and purpose of the project. Is the ultimate goal of this proposal to expand the scope of recreational activities available at this site? Is it to provide facilities accessible to those from the Lihu'e area or from the entire island? Is it to provide Kaua'i with upgraded facilities so it might attract more statewide, national and international competitions? What is the projected volume of people and events to be serviced? Information should be provided with this type of data to justify the need for this project.

We would also like to know the projected construction timeline for the various project phases listed on page II-2. Are there any projected numbers of users for each facility at any given time?

Parking Facilities

There are several issues that need clarification in the section on Parking Facilities. The discussions on page II-3 states that "The baseball field would still be available for overflow parking for 355 vehicles." How often is this overflow parking needed presently, and how full does it get?

"It is assumed that only one of the facilities will be fully occupied at any given time," thus accommodating the demand for parking. What prevents the county from scheduling two events simultaneously? Is there, for example, the possibility of scheduling a baseball game and an activity in the gym at the same time? How will parking be handled in this situation?

While the complex facilities may not be fully occupied at one time, the combination of several events occurring simultaneously may exceed the 1141 stalls. Additional thought should be given to the parking situation to prevent parking in undesirable areas such as along busy roads, near intersections, or in private lots or driveways. This is especially true if the circumstance arises that funding for the additional parking lot is not available.

Cost Estimates

The estimated operational cost is listed on page II-4 as approximately \$370,000. Do these cost estimates include debt servicing? The DEA subsequently states on page V-5 that "revenue generated at the events should support the projects annual operating cost." There are however, no estimates on potential usage, making it difficult to judge whether revenue will be able to support the operational costs. How much revenue does the facility bring in at present? Is it enough to cover present expenses? We hope that a discussion of operational expenses in the Final EA would cite current revenue statistics, usage figures, and estimated usage and revenue figures once the addition is built.

Mr. Kudo
April 26, 2000
Page 3

Cost Estimates (continued)

We would like to know if alternate sources of funding have been considered for infrastructure development. Regardless of land size and use allocation, if infrastructure is to be developed, initial development cost and subsequent maintenance cost might be covered through donor fund sources. Other facilities have been developed with contributions from the private sector. The Punahou School athletic facility (gymnasium and/or covered swimming pool complex), for example, was funded by this means. Financial need does not seem to be a criterion for participation in this type of arrangement with this donor foundation. Could this be a viable source of funds for development of the gymnasium and/or swimming pool complex of this project?

Flood Hazard

This section on page III-3 neglects to mention how the proposed Center will increase storm water runoff, particularly considering the cumulative impacts of adjacent developments, and how the overall increase in urban storm water runoff will effect flooding in downstream/downslope areas

Potential flood conditions are addressed by the inclusion of "local drainage improvements." What are the improvements? Also, what is the condition of the current drainage system on the property?

Utilities

What does the term "domestic flow" mean as it is used on page III-3 to describe utilities? This section states that this "domestic flow is adequate based on scheduling only one major event at either the football stadium or the gymnasium." How will simultaneous scheduling of events at these facilities effect the ability of the utilities to handle domestic flow?

This complex could benefit from efficiency planning, including building designs that maximize natural lighting and ventilation, and energy efficient lighting which may be linked to timers to ensure that lights are not on during times of facility inactivity.

Land Use

The conversion of the soccer field into a parking lot also draws concern over the loss of a reconfigurable, open green space that benefited a variety of users with a venue for different activities. This field is currently used for open field games such as soccer, running, walking, playing Frisbee, kite flying, and other outdoor activities. If this reconfigurable open space is to be completely eliminated, is there any provision for replacing it? Are there vacant lots near the project site that can be used to maintain open green space for these types of activities?

Mr. Kudo
April 26, 2000
Page 4

Land Use (continued)

Any project should consider that reconfigurability may be reduced, infrastructure development costs may be significant, and that maintenance costs may increase significantly. In circumstances such as this one where a change in land use is decided, it may be beneficial to consider retaining a large reconfigurable component and to ensure that areas that lose this type of reconfigurability still retain the opportunity to serve a large number of people per unit time, such as in the case of the gymnasium. Another consideration is to adopt changes in phases to minimize the immediate impact on total reconfigurable areas, and to phase in the cost of the initial infrastructure development and periodic maintenance.

Tourism is the number one industry for the state, and for every county of the state. Kauai is the only county whose most significant recreational facility is one of the first significant structures that a visiting tourist may see. At present, that facility, while appreciated, is not something that necessarily captures the eye of the arriving tourist. If the land adjacent to the current sports complex and proposed judicial and police complexes were acquired and dedicated to sports or more generally, community use, Kauai could maximize that "first impression" on every arriving tourist.

If there is a decision to expand the amount of land involved in this community project, then it may be wise to locate the gymnasium, swimming pool complex, tennis courts, parking and possibly other components on the newly acquired land fronting the highway and North of the existing and proposed project areas. This would allow for continuous uninterrupted use of existing recreational areas during construction of new facilities.

Other Projects in the Area

Our reviewers were concerned with the lack of discussion on the cumulative impacts of development in the project site. In addition to the proposed stadium expansion, the Draft EA indicates on page III-5 that there are also several other projects including a police station, a bus facility, and a judiciary complex. What are the expected traffic, and utility impacts from these developments?

One significant deficiency in the Draft EA was the cumulative impact of increased urban-induced stormwater runoff that will result from the expansion of the stadium and from future and existing projects in the area. No mention is made of how much impermeable surface will be created, how much this change will increase stormwater runoff, and nonpoint source pollutants.

The existing concrete-lined "drainage trench" that drains the north end of the Lihue airport discharges along the coastline, causing severe soil erosion along the bluff, and localized sedimentation and turbidity of nearshore marine waters. Similarly, most of the urban development near the proposed complex discharges into Kalapaki and Nawiliwili Stream, both of which are degraded due to increased urban stormwater runoff and pollution which have caused significant sedimentation, stream bank erosion, and turbidity.

Mr. Kudo
April 26, 2000
Page 5

Economic Impacts

The long-term economic impacts of the project indicate that one possibility is the increased eligibility of the facility to accommodate statewide or national tournaments. Currently, Kaua'i is already qualified to host statewide tennis events by pooling the use of courts at more than one site. The number of tennis courts proposed for inclusion in this project, would not, on their own, qualify Kaua'i for state events. Therefore, the presence of the eight additional tennis courts within this project would only increase the pooling potential. It would not provide a single site that qualifies to host certain statewide tennis events.

Water Quality Impacts

Water quality impacts are inadequately addressed. This section does not mention how much stormwater will be discharged, where it will be discharged, or cumulative impacts. Therefore, without such information there appears to be no basis for the statement on page V-6 that "No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project". This would be particularly true if the project's stormwater runoff flow into Kalapaki or Nawiliwili streams.

It is not just during construction that urban developments impact water quality in streams and coastal marine habitats. The development of large impervious surfaces (e.g., roofs, roadways and sidewalks, parking lots, tennis courts, etc.) will cause long-term chronic and negative impacts to water quality if stormwater runoff is allowed to discharge into storm drains and streams, or coastal waters, without appropriate Best Management Practices (BMP's) such as stormwater detention basins and vegetated biofiltration channels. These BMP's are recommended in a draft to amend the County's "Drainage Ordinance" (which should be labeled an "Urban Stormwater Quality Protection Ordinance." However, the current Drainage Ordinance (written in 1972) is inadequate to protect the quality of receiving waters from urban stormwater runoff and associated pollutants. With this in mind, it may be beneficial to research updated protocols to adhere to.

The proposed issuance of "all necessary connection and discharge permits," such as a National Pollution Discharge Elimination System (NPDES) Permit may not be effective if no one monitors the discharges. Currently, a number of NPDES permits are in effect in the region for Nawiliwili Stream and Bay, yet both remain the most polluted aquatic habitats on Kaua'i. Therefore, Hawaii Administrative Rules, Title 11, Chapters 11-55, "Water Pollution Control" does not seem to be working. The Department of Health's BMP's should include urban stormwater detention basins and vegetated biofiltration channels to filter stormwater runoff.

Mr. Kudo
April 26, 2000
Page 6

Biological Impacts

Evening lighting is proposed on page V-6 to be "designed to provide sufficient cutoff distribution for glare control." Please include the guidelines that will be followed to ensure minimal impacts to nocturnal birds. Will the measures that were suggested by the Fish and Wildlife Service be fully implemented?

Noise Impacts

Noise is not predicted to increase as a result of the project (page V-7). However, our reviewers note that noise from the Stadium Complex is sometimes disruptive. Noise from night games may be heard from several miles away, and the nearest housing is somewhat closer. There is also the possibility of a subdivision to be developed directly behind the project area. If noise containment measures are unfeasible, perhaps evening curfews will be appropriate in controlling noise levels. Noise issues should be considered when determining the extent of secondary impacts on page VIII-2.

Traffic

The project traffic assessment indicates an increase in traffic during and after construction. What mitigation measures will be implemented in response to this, especially in the area of the Kapule Highway-Rice Street intersection? Will all of the recommendations made by the traffic consultant be implemented?

When discussing traffic issues on page V-8, the Draft EA states that "The proposed... [e]xpansion project includes provisions for an additional parking facility where the existing soccer field is located." There does not seem to be any plan to relocate the soccer fields if the parking lot is developed. What is to happen to those youth and adult soccer leagues that currently utilize the fields? There is currently one full-sized field and three smaller fields, which are used for both practice and games. Other fields in Lihu'e are unable to accommodate the number of games played.

With regard to participant safety, it may be beneficial to create area use access points to minimize pedestrian traffic near the highway. If the gymnasium and swimming pool complexes are located at the eastern end of the property with their respective main entry/exit points positioned on the sides away from the Kapule Highway, it may keep their participants and spectators away from the highway. It would also make it nearly impossible for errant objects (e.g. soccer balls) associated with games in the open field area from creating a disturbance on the highway. It would also eliminate people, especially children retrieving errant objects, from the highway area.

Mr. Kudo
April 26, 2000
Page 7

Conclusion

This project is commended for its cooperation with civic groups in its planning stages. There seems to be some need for expanded facilities in the area, but these needs and intents were not indicated clearly in the Draft EA. It is our recommendation that these points be included in the Final EA, and that the various other issues which were previously outlined be addressed before construction commences. Of particular concern are traffic and parking issues, water quality and runoff issues, and the loss of the soccer fields and open space. Thank you for the opportunity to comment on this draft EA.

Sincerely,



Peter Rappa
Assistant Environmental Coordinator

cc: Akinaka & Associates, Ltd.
OEQC
James Moncur, WRRC
Marshall Mock, Physical Sciences, Kauai CC
Tracy Tucker, Computer Specialist, Kauai CC
Don Heacock, DLNR
Sherri Hiraoka, Environmental Center



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BENJAMIN M. GANAL, L.P.L.S.
JOSEPH S. KEANE, JR.
MARIAN N. NAKAMA, L.P.E.
CRAIG K. MATSUMOTO
STATE A INFANTE

August 3, 2000

FILE COPY

University of Hawaii, Environmental Center
2550 Campus Road, Crawford 317
Honolulu, Hawaii 96822

Attention: Peter Rappa
Assistant Environmental Coordinator

Project: Vidinha Stadium Complex Expansion
Kauai Department of Public Works
Lihue, Kauai, HI. (TMK: 3-6-02:16 & 18)

Subject: Draft Environmental Assessment

Reference: UHM Environmental Center ltr EA: 00206 dated April 26, 2000

In response to the comments within the reference, we offer the following:

1. **Comment:** Is the ultimate goal of this proposal to expand the scope of recreational activities available at this site? Is it to provide facilities accessible to those from the Lihue area or from the entire island? Is it to provide Kauai with upgraded facilities so it might attract more statewide, national and international competitions? What is the projected volume of people and events to be serviced?

We would also like to know the projected construction timeline for the various project phases listed on page II-2. Are there any projected numbers of users for each facility at any given time?

Response: Expansion of recreational activities at this site is within the ultimate goal of this project. The project will offer facilities for instruction, conventions and training. The facilities will be regional and accessible to those from the entire island. The upgraded facilities might attract more statewide competitions but national and international competitions require further improvements and off-site support. Five thousand people would be the desired maximum volume of people at any event. To service a larger volume would require temporary facilities like food booths and parking lot use arrangements with the adjacent government agencies.

Construction timelines for the various project phases have not been established. These phases will be implemented when the administration and legislative bodies of the county establish that priority and funding of the phase become foremost. The projected number of users for each facility is indicated by multiplying the number of parking stalls in the table of page II-3 by 5.

2. **Comment:** The discussions on page II-3 states that "The baseball field would still be available for overflow parking for 355 vehicles." How often is this overflow parking needed presently, and how full does it get?

Response: The need for overflow parking is seldom to rare. Special events and critical football games require overflow parking several times a year. There has been sufficient space for the vehicles in the past events. Future overflow parking can utilize the parking area of the proposed government projects and the adjacent future subdivision.

3. **Comment:** What prevents the county from scheduling two event simultaneously? Is there, for example, the possibility of scheduling a baseball game and an activity in the gym at the same time? How will parking be handled in this situation?

Response: Public reaction and negative publicity are items that would prevent simultaneous major activities. The facilities staff is responsible to schedule all events at the complex and major events require long lead time and preparation. The long lead time requirement will allow scheduling that prevents the parking problem you envision.

4. **Comment:** Additional thought should be given to the parking situation to prevent parking in undesirable areas such as along busy roads, near intersections, or in private lots or driveways. This is especially true if the circumstance arises that funding for the additional parking lot is not available.

Response: A project phase will not be implemented if parking congestion will be a normal occurrence. Parking is prohibited on Kapule Highway the major road in the area.

5. **Comment:** The estimated operational cost is listed on page II-4 as approximately \$370,000. Do these cost estimates include debt servicing? The DEA subsequently states on page V-5 that "revenue generated at the events should support the projects annual operating cost."

Response: The estimated operational costs do not include debt servicing. The statement will be revised by adding a leading phrase "It is desired that..."

6. **Comment:** How much revenue does the facility bring in at present? Is it enough to cover present expenses? We hope that a discussion of operational expenses in the Final EA would cite current revenue statistics, usage figures, and estimated usage and revenue figures once the addition is built.

Response: The revenue of the existing facility should not be a consideration for project implementation. Present operational expenses are within the stadiums (Vidinha & Hanapepe) annual budget of \$327,375. The Vidinha stadium maintenance staff consists of two park caretakers. Stadiums revenue in FY98-99 was \$10,800. Information regarding programs, staffing, budget and expenditures is available within the county's annual report.

7. **Comment:** We would like to know if alternate sources of funding have been considered for infrastructure development. Regardless of land size and use allocation, if infrastructure is to be developed, initial development cost and subsequent maintenance cost might be covered through donor fund sources. Other facilities have been developed with contributions from the private sector. The Punahou School athletic facility (gymnasium and/or covered swimming pool complex), for example, was funded by this means. Financial need does not seem to be a criterion for participation in this type of arrangement with this donor foundation. Could this be a viable source of funds for development of the gymnasium and/or swimming pool complex of this project?

Response: Comparison with Punahou School for resource funding is an injustice as Punahou School has a larger base of affluent alumni, parents and other donors. The County administration approached the YMCA to develop the project but negotiations were terminated upon review of the YMCA proposal. A private development of a roller blade rink was discussed at the community information meeting and ended when no proposal was offered. Financial need is not a criteria for participating in county programs.

8. **Comment:** This section (flood hazard) on page III-3 neglects to mention how the proposed Center will increase storm water runoff, particularly considering the cumulative impacts of adjacent developments, and how the overall increase in urban storm water runoff will effect flooding in downstream/downslope areas.

Response: The proposed expansion area will increase storm runoff in consideration of the increase of impervious surfacing. Technical review of the pertinent drainage facilities indicate that the storm water runoff can be adequately transported by the existing facilities. The drainage aspects of the project is discussed in detail in the drainage section of the facilities master plan report. Impacts from the adjacent developments will require improvements along Kapule Highway and into the Hyatt Resort property. A detention pond is proposed in the County portion of the adjacent development. The requirements for downstream improvements and construction of a detention pond were conclusions of drainage studies for the adjacent developments.

9. **Comment:** Potential flood conditions are addressed by the inclusion "local drainage improvements." What are the improvements? Also, what is the condition of the current drainage system on the property?

Response: Local drainage improvements will consists of catch basins, drain inlets, drain pipes, swales and similar items. Roadway items including pavement, gutters and curbs will direct flows to the drainage improvements which will collect and transport storm flows to the major facilities.

The condition of the current drainage system is adequate for the existing and proposed project improvements. An earth ditch serves as the major facility requires periodic maintenance to trim grasses and bushes to prevent blockage and maintain a reasonable coefficient of friction.

10. **Comment:** What does the term "domestic flow" mean as it is used on page III-3 to describe utilities? This section states that this "domestic flow is adequate based on scheduling only one major event at either the football stadium or the gymnasium." How will simultaneous scheduling of events at these facilities effect the ability of the utilities to handle domestic flow?

Response: Domestic flow refers to potable water for consumption as differentiated from fire flow. Although the scheduling/reservation system will prevent simultaneous events, the domestic flows should be adequate because the fixture units are limited. Pressure drops may be experienced but will not affect the usage of the facilities.

11. **Comment:** This complex could benefit from efficiency planning, including building designs that maximize natural lighting and ventilation, and energy efficient lighting which may be linked to timers to ensure that lights are not on during times of facility inactivity.

Response: Current building codes promote efficient lighting. Building designs that maximize natural lighting and ventilation must be balanced with the acoustic and humidity requirements. The building designer will be directed to investigate the use of natural lighting and ventilation. The county has included light timers for their recreation facilities for many years.

12. **Comment:** The conversion of the soccer field into a parking lot also draws concern over the loss of a reconfigurable, open green space that benefitted a variety of users with a venue for different activities. This field is currently used for open field games such as soccer, running, walking, playing Frisbee, kite flying, and other outdoor activities. If this reconfigurable open space is to be completely eliminated, is there any provisions for replacing it? Are there vacant lots near the project site that can be used to maintain open green space for these types of activities?

Response: The use of the expansion area for soccer has been known as a temporary action from its inception. There are other parks, playgrounds and school yards that can support the other listed outdoor activities. If multi-purpose use is acceptable, there should be parks, athletic fields and school grounds that can substitute for the soccer fields.

13. **Comment:** Any project should consider that reconfigurability may be reduced, infrastructure development costs may be significant, and that maintenance costs may increase significantly. In circumstances such as this one where a change in land use is decided, it may be beneficial to consider retaining a large reconfigurable component and to ensure that areas that lose this type of reconfigurability still retain the opportunity to serve a large number of people per unit time, such as in the case of the gymnasium. Another consideration is to adopt changes in phases to minimize the immediate impact on total reconfigurable areas, and to phase in the cost of the initial infrastructure development and periodic maintenance.

Response: The land use for the project area will remain as recreation. As discussed in the EA, the project will be implemented in phases. The master plan phasing will be the ballfield initially - there will be no reconfiguration requirement. When the second phase (tennis courts) and then the third phase (swimming pool) are constructed, the soccer fields on the Kapule Highway side will remain in use. Only when the gymnasium and parking lot are initiated will there be a need to completely relocate the soccer activity.

14. **Comment:** Tourism is the number one industry for the state, and for every county of the state. Kauai is the only county whose most significant recreational facility is one of the first significant structures that a visiting tourist may see. At present, that facility, while appreciated, is not something that necessarily captures the eye of the arriving tourist. If the land adjacent to the current sports complex and proposed judicial and police complexes were acquired and dedicated to sports or more generally, community use, Kauai could maximize that "first impression" on every arriving tourist.

Response: The value of the "first impression" for visiting tourists exiting the airport is a known commodity for the Island of Kauai. The county, state and industry leaders are implementing a gateway beautification project along Ahukini Road and Kapule Highway.

15. **Comment:** If there is a decision to expand the amount of land involved in this community project, then it may be wise to locate the gymnasium, swimming pool complex, tennis courts, parking and possibly other components on the newly acquired land fronting the highway and North of the existing and proposed project areas. This would allow for continuous uninterrupted use of existing recreational areas during construction of new facilities.

Response: The project is planned at the proposed 10 acre site since 1969 when the master plan for the Stadium Complex was developed. The complex cannot be areally expanded as the adjacent lands are not available. However, there may be future opportunities that would allow the County to develop additional parks for the near vicinity for recreational purposes.

16. **Comment:** Our reviewers were concerned with the lack of discussion on the cumulative impacts of development in the project site. In addition to the proposed stadium expansion, the Draft EA indicates on page III-5 that there are also several other projects including a police station, a bus facility, and a judiciary complex. What are the expected traffic, and utility impacts from these developments?

Response: Separate documents were developed for the other projects outside the stadium complex expansion. These documents address the cumulative impacts in conjunction with the master plan for the area. As examples, the traffic study warranted a signalized intersection at Kapule Highway and the utility study resulted in limiting the water meter size for the judiciary complex.

17. **Comment:** One significant deficiency in the Draft EA was the cumulative impact of increased urban-induced stormwater runoff that will result from the expansion of the stadium and from future and existing projects in the area. No mention is made of how much impermeable surface will be created, how much this change will increase stormwater runoff, and nonpoint source pollutants.

Response: Impacts from other future projects in the area are addressed in separate documents. Increased runoff from these other sites have required negotiations with the downstream landowners (the State Highway Division and Hyatt Resorts). Meetings to address the drainage concerns have been completed resulting with an acceptable drainage scheme.

18. **Comment:** The existing concrete-lined "drainage trench" that drains the north end of the Lihu'e airport discharges along the coastline, causing severe soil erosion along the bluff, and localized sedimentation and turbidity of nearshore marine waters. Similarly, most of the urban development near the proposed complex discharges into Kalapaki and Nawiliwili Stream, both of which are degraded due to increased urban stormwater runoff and pollution which have caused significant sedimentation, stream bank erosion, and turbidity.

Response: Thank you for this comment. Storm flows from this project site will drain through grass lined swales of the golf course into lakes prior to discharging into Nawiliwili Stream. Draining storm water into the natural or manmade grass swales or ditches is listed as a best management practice to reduce pollutants and sediment loads.

19. **Comment:** The long-term economic impacts of the project indicate that one possibility is the increased eligibility of the facility to accommodate statewide or national tournaments. Currently, Kaua'i is already qualified to host statewide tennis events by pooling the use of courts at more than one site. The number of tennis courts proposed for inclusion in this project, would not, on their own, qualify Kaua'i for state events. Therefore, the presence of the eight additional tennis courts within this project would only increase the pooling potential. It would not provide a single site that qualifies to host certain statewide tennis events.

Response: The fact that a single site cannot host certain statewide tennis events is known. Pooling use of courts at more than one site is an ongoing means for staging events to reduce the qualifying time

schedule. The presence of the eight additional courts will allow an option to schedule all the events at one location over a long period and/or schedule the semi-finals in the same courts as the final events.

20. **Comment:** Water quality impacts are inadequately addressed. This section does not mention how much stormwater will be discharged, where it will be discharged, or cumulative impacts. Therefore, without such information there appears to be no basis for the statement on page V-6 that "No adverse long term impacts are expected on the water quality of off-shore waters as a result of the proposed project." This would be particularly true if the project's stormwater runoff flow into Kalapaki or Nawiliwili streams.

Response: The Vidinha Stadium project develops 10 acres in a drainage area that is approximately 200 acres in size. There would be a very nominal increase in storm flowages. Best Management practice of draining storm water through natural swales and water courses and its long travel path will help reduce pollutants.

21. **Comment:** The development of large impervious surfaces (e.g., roofs, roadways and sidewalks, parking lots, tennis courts, etc.) will cause long-term chronic and negative impacts to water quality if stormwater runoff is allowed to discharge into storm drains and streams, or coastal waters, without appropriate Best Management Practices (BMP's) such as stormwater detention basins and vegetated biofiltration channels. These BMP's are recommended in a draft to amend the County's "Drainage Ordinance" (which should be labeled an "Urban Stormwater Quality Protection Ordinance." However, the current Drainage Ordinance (written in 1972) is inadequate to protect the quality of receiving waters from urban stormwater runoff and associated pollutants. With this in mind, it may be beneficial to research updated protocols to adhere to.

Response: The County is revising the Storm Drainage Standards. Draft standards proposing detention basins to handle increase in storm flow and water quality purposes for specified projects. Best Management Practices is also being proposed for pollution control.

The project is using Best Management Practice of draining storm water through natural grass lined channels. This project has adequate off-site facilities to handle the runoff and pollutant prior to reaching the receiving waters.

22. **Comment:** Currently, a number of NPDES permits are in effect in the region for Nawiliwili Stream and Bay, yet both remain the most polluted aquatic habitats on Kaua'i. Therefore, Hawaii Administrative Rules, Title 11, Chapter 11-55, "Water Pollution Control" does not seem to be working. The Department of Health's BMP's should include urban stormwater detention basins and vegetated biofiltration channels to filter stormwater runoff.

Response: This comment should be directed to the Department of Health.

23. **Comment:** Evening lighting is proposed on page V-6 to be "designed to provide sufficient cutoff distribution for glare control. "Please include the guidelines that will be followed to ensure minimal impacts to nocturnal birds. Will the measures that were suggested by the Fish and Wildlife Service be fully implemented?"

Response: The guidelines for lighting will conform to the Illumination Engineering Society of North America. The field lights are required to be of a certain height to provide adequate illumination but can be aimed to minimize glare. Limiting the pole heights to 25 feet as recommended by the Fish and Wildlife Service is not practical in terms of ball play and observation. There will be concerns of safety for the active participants and even the spectators.

24. **Comment:** Noise is not predicted to increase as a result of the project (page V-7). However, our reviewers note that noise from the Stadium Complex is sometimes disruptive. Noise from night games may be heard from several miles away, and the nearest housing is somewhat closer. There is also the possibility of a subdivision to be developed directly behind the project area. If noise containment measures are unfeasible, perhaps evening curfews will be appropriate in controlling noise levels. Noise issues should be considered when determining the extent of secondary impacts on page VIII-2.

Response: It should be noted that the noise incidents are generated from an existing facility. This project will not modify or expand the existing facility (stadium) where the sometimes disruptive noise is generated. The proper forum to establish curfews for an existing facility is not in this document.

This project proposes noise containment where excessive noise may be generated from the project. Our noise study recommends that if noise sensitive activities are regularly scheduled in the gymnasium, it be enclosed and air conditioned to mitigate the Lihue Airport aircraft noise.

25. **Comment:** The project traffic assessment indicates an increase in traffic during and after construction. What mitigation measures will be implemented in response to this, especially in the area of the Kapule Highway - Rice Street intersection? Will all of the recommendations made by the traffic consultant be implemented?

Response: The Kapule Highway - Rice Street intersection is under study by the State Highways Division. Recommendations made by the project's traffic consultant will be implemented.

26. **Comment:** When discussing traffic issues on page V-8, the Draft EA states that "The proposed... [e]xpansion project includes provisions for an additional parking facilities where the existing soccer field is located." There does not seem to be any plan to relocate the soccer fields if the parking is developed. What is to happen to those youth and adult soccer leagues that currently utilize the fields? There is currently one full-sized field and three smaller fields, which are used for both practice and games. Other fields in Lihue are unable to accommodate the number of games played.

Response: The use of the area for soccer is of a temporary nature. Soccer leagues that temporarily utilize the fields must relocate when the additional parking facility is required, which is more than several years away. Other areas available to house the soccer activities are UluKo Park, mauka and adjacent to the UluKo Subdivision; the county park mauka and adjacent to the Chiefess Kamakahelei

Middle School; the vacant lands along Kaumualii Highway in the Kauai Community College (KCC), the new athletic-field at the Island School above KCC and the old Puhi Camp area west of the KCC campus. The County may also have opportunities to develop additional parks in vicinity of the Stadium Complex as the agricultural lands are developed.

27. **Comment:** With regard to participant safety, it may be beneficial to create area use access points to minimize pedestrian traffic near the highway. If the gymnasium and swimming pool complexes are located at the eastern end of the property with their respective main entry / exit points positioned on the sides away from the Kapule Highway, it may keep their participants and spectators away from the highway. It would also make it nearly impossible for errant objects (e.g. soccer balls) associated with games in the open field area from creating a disturbance on the highway. It would also eliminate people, especially children retrieving errant objects, from the highway area.

Response: Thank you for the comment. During the initial phases of the project, the existing conditions will remain. In the completed facility, children should not be retrieving soccer balls from the highway since the fields will be relocated.

28. **Comment:** There seems to be some need for expanded facilities in the area, but these needs and intents were not indicated clearly in the Draft EA. It is our recommendation that these points be included in the Final EA, and that the various other issues which were previously outlined be addressed before construction commences. Of particular concern are traffic and parking issues, water quality and runoff issues, and the loss of the soccer fields and open space.

Response: We will review the Draft EA and expand discussions or address other issues of concern as necessary in acknowledgment of this transmittal.

University of Hawaii
Environmental Center
August 3, 2000
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Should you have any questions or require addition information, please contact me at 536-7721. Thank you for your time.

Very truly yours,



Henry S. Morita
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