Kapolei Middle School

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IN REPLY REFER TO:
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OFC. OF ENVIRONMENTAL QUALITY CONTROL

August 29, 1997

TO: The Honorable Gary Gill, Director
Office of Environmental Quality Control (OEQC)

FROM: Roy S. Oshiro, Executive Director

SUBJECT: Final Environmental Assessment (FEA)
Kapolei Middle School
Finding of No Significant Impact (FONSI)
Tax Map Key: (1)9-1-16: por. of 82 and 83

The Housing Finance and Development Corporation (HFDC) has reviewed the comments received during the thirty-day public comment period which began on "July 8, 1997". The HFDC has determined that this project will not have significant environmental effects and has issued a negative declaration. Please publish this notice in the September 23, 1997 OEQC Bulletin.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final Environmental Assessment.

Should you have any questions, please contact Sandy Pfund, Project Coordinator, at 587-3190.

HFDC

9t

1997-09-23-OA-FEA-Kapolei Middle School



# Final Environmental Assessment

# of the

# Kapolei Middle School

**Prepared for**
**State of Hawaii**
**Housing Finance and Development Corporation**

**August 1997**

**Prepared by Mitsunaga and Associates, Inc.**

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## Preface

The State of Hawaii, Housing Finance and Development Corporation (HFDC) in partnership with a private developer and in consultation with the State Department of Education (DOE) and the State Department of Accounting and General Services (DAGS), proposes to build, the Kapolei Middle School in Kapolei, Hawaii. (TMK Portions 1-9-16:82 and 83). Pursuant to Chapter 343, Hawaii Revised Statutes, and Chapter 200 of Title 11, Administrative Rules, Environmental Impact Statement Rules, this Environmental Assessment (EA) documents the project's technical characteristics and environmental impacts, and advances findings and conclusions relative to the significance of the project.

## Summary

### Proposing Agency and Landowner

The proposing agency for the proposed project is the State of Hawaii Housing Finance and Development Corporation (HFDC). The landowner for the property is State of Hawaii (HFDC) but the land will be conveyed to Makai Village Partnership.

### Property Location and Description

The proposed Kapolei Middle School Project is located on the southwest side of the Island of Oahu, approximately 22 miles west of the primary urban center of Honolulu. The site is located near the center of the Ewa Plain, north of Naval Air Station Barbers Point (NASBP), south of the Makakilo residential community and directly east of the proposed Kapolei Town Center. Further to the west lie the Campbell Industrial Park, Deep Draft Harbor, Ko'Olina resort/residential community, and the existing community of Honokai Hale. Major roadways providing general access to the site area include the H-1 Freeway, Farrington Highway and Barbers Point Access Road (Fort Barrette Road), while Kapolei Parkway provides the direct access to the site. For taxation purposes, the project site is identified as TMK 1-9-16:82 and 83.

The site has been designated Urban for purposes of State Land Use and is zoned R3.5 residential and A-1 low density apartment under Act 15, Session Laws of Hawaii 1988. A school can exist over such zoning. The project site area encompasses approximately 20 acres for the Kapolei Middle School and is located adjacent to a proposed park to the west and single family residents to the south. The north border of the project site fronts Kapolei Parkway from the Kama'aha Street intersection at the west end to a non-potable irrigation water storage and transmission facility.

The Kapolei Middle School project site is presently owned by the State of Hawaii (HFDC) but will be conveyed to Makai Village Partnership. This land was previously leased to Oahu Sugar Company (OSCo) by the former owner, Campbell Estate, for

sugar cane cultivation. All sugar cane cultivation in this area was terminated by OSCo. Such former sugar cane fields located east of the project site just across a drainage channel and south of the Kapolei Golf Course are owned by the State of Hawaii, but these fields have been allowed to lay fallow pending future development of the area. The State of Hawaii owns the railway and roadway rights-of-way makai of the project site and bordering NASBP. There is a small strip of land between the railroad right-of-way and NASBP owned by Campbell Estate. Barbers Point Access Road and Makakilo Interchange are also owned by the State of Hawaii. Kapolei Parkway, along the mauka frontage of the project site, is presently owned by State of Hawaii but will eventually be dedicated to the City and County of Honolulu. Farrington Highway and Fort Barrette Park (Puu Kapolei) are owned by the City and County of Honolulu; and NASBP is owned by the Federal Government. The proposed project is to be constructed near the southern corner of the Kapolei Golf Course and just north of the proposed Village 8 of the Villages of Kapolei.

**Proposed Action**

The proposed action involves the construction of a Middle School on approximately 20 acres of land in the southeast corner of the Villages of Kapolei development. In preparing for the 21st century, the Kapolei Middle School will be only the third public school in Hawaii to incorporate utilization of a design charette process that provided for significant input by the community that the school will serve as well as educators and students. The charette process consisted of a series of intense, brainstorming, project design sessions, in which all appropriate groups came together for periods of concentrated time. The process facilitated and accelerated communication and decision-making, and provided the opportunity for significant input by more people than the traditional design process allows. The design charette for Kapolei Middle School was scheduled in three sessions and, held over a three-month period, from November 1996 through January 1997. During this time, a Steering Committee translated the ideas and themes, developed by a Task Force, into the physical design of the school. For further details on the design charette process see

The Making of Kapolei Middle School (Design Charette) Final Report (March 1997), for Makai Villages Partnership by Mitsunaga and Associates, Inc. The school campus will include one-story buildings consisting of three classroom buildings (also called "Houses"), a Cultural Center, a Library/Media Center, an Administration Center, a Science and Technology Center and a P.E. Locker/Showers Building. The total net space for all buildings will be 106,000 sf and 151,000 sf gross floor space.

The school campus will also include two ballfields, playcourts, space for a future gym on the east side of the site bordering the area of the non-potable irrigation facility, staff and visitor parking along the northwestern side of the site with access to Kapolei Parkway, a parent pick-up and drop-off area and a special handicap drop-off area along the northwestern border of the site with access to the Kama'aha Avenue extension. It should also be noted that the Kapolei Middle School is the first public school initiated by a private developer prior to the appropriation of funds by the State.

## Alternatives

### A. "No Action" Alternative

A "no action" alternative would in the short-term, simply produce no development on the subject project site, the land would remain in its vacant state, and there would be no increased demands on infrastructure support. However, in the longer term, if no school is built on the site, residential development would eventually take its place in accordance with the proposed use in the 1993 Kapolei Master Plan. This alternative would not produce any educational facilities or create any additional job markets in Kapolei. Moreover, this alternative would leave the soaring number of intermediate school age residents in Kapolei with no intermediate school in their immediate community. Thus, forcing these school age residents to attend already overflowing intermediate schools in the region (See I.B. Project Need). For all the foregoing reasons, the applicant has rejected this alternative.

B. **Alternate Sites**

At least three alternate sites were considered before the final decision to place the school at the proposed site location. These alternate sites are covered in detail in Section 3.3 Conceptual Plan Alternatives of the FEIS for Kapolei Village submitted by HFDC in February 1988. Subsequently, after careful consideration of all available sites over several years of the planning process, HFDC decided that the best use of the available land, financial resources, and application of important criteria, that the site of the Middle School should be at the existing proposed site.

**Findings and Conclusion**

The proposed project will involve earthwork and construction activities. In the short-term, these activities may create temporary nuisances normally associated with construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions. It should also be noted that HFDC also requires: preparation of a Dust Mitigation Plan, dust screens, and notification to the Villages of Kapolei Association, or others, prior to commencement of site work. All construction activities are anticipated to be limited to normal daylight working hours. Impacts generated from construction activities are not considered adverse. From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. There are no known significant habitats or rare, endangered or threatened species of flora or fauna or archaeological sites located on the project site. The proposed project conforms with area-wide improvements. Appropriate erosion control measures are being incorporated during the construction phase to minimize soil loss associated with construction activities. With regard to other infrastructural systems and public services, the proposed project should have no adverse environmental impact.

In light of the foregoing findings, it is concluded that the proposed action will not result in any adverse environmental impacts. Therefore, HFDC anticipates the filing of the official Findings of No Significant Impacts (FONSI).

## Development Summary

| | |
|---|---|
| *Proposing Agency:* | Housing Finance and Development Corporation |
| *Property Owner:* | State of Hawaii, HFDC<br>(Note: This land will be conveyed to Makai Village Partnership.) |
| *Property Location:* | Approximately 22 miles west ot the primary urban center of Honolulu, near the center of the Ewa Plain, north of the Naval Air Station Barbers Point (NASBP), south of the existing residential community of the Villages of Kapolei. |
| *Tax Map Key:* | Zone 9, Section 1, Plat 16, and encompassing portions of Parcels 82 and 83. |
| *Area:* | 20 acres |
| *State Land Use District:* | Urban |
| *City and County Development Plan Designation:* | Agriculture (AG-1) |
| *Act 15 Zoning:* | R3.5 and A-1 |
| *Exisiting Uses:* | Undeveloped lots |
| *Proposed Use:* | School (Note: A school can exist over A-1 or other zoning.) |
| *Proposed Action:* | The applicant HFDC proposes to set aside 20 acres of land in the Ewa Plain area, for development of the Middle School as part of the Kapolei Master Planned community, in partnership with a private developer to design and construct the school |
| *EA Accepting Authority:* | Governor, State of Hawaii |

## Necesssary Permits and Approvals

A. State of Hawaii

1. Department of Health
   a) *Best Management Practices*
   b) *National Pollutant Discharge Elimination System*

2. State Commission on Water Resources Management
   *Potable and Non-Potable Water Allocation*

B. City and County of Honolulu

1. Department of Wastewater Management
   a) *Sewer Connection Application*
   b) *Industrial Wastewater Certificate*

2. Department of Public Works
   a) *Grading Permit*
   b) *Erosion Control Report*
   c) *Drain Connection Application*
   d) *Point Source Identification Information Application*

3. Building Department
   a) *Building Permit*
   b) *Separate Foundation Permit*

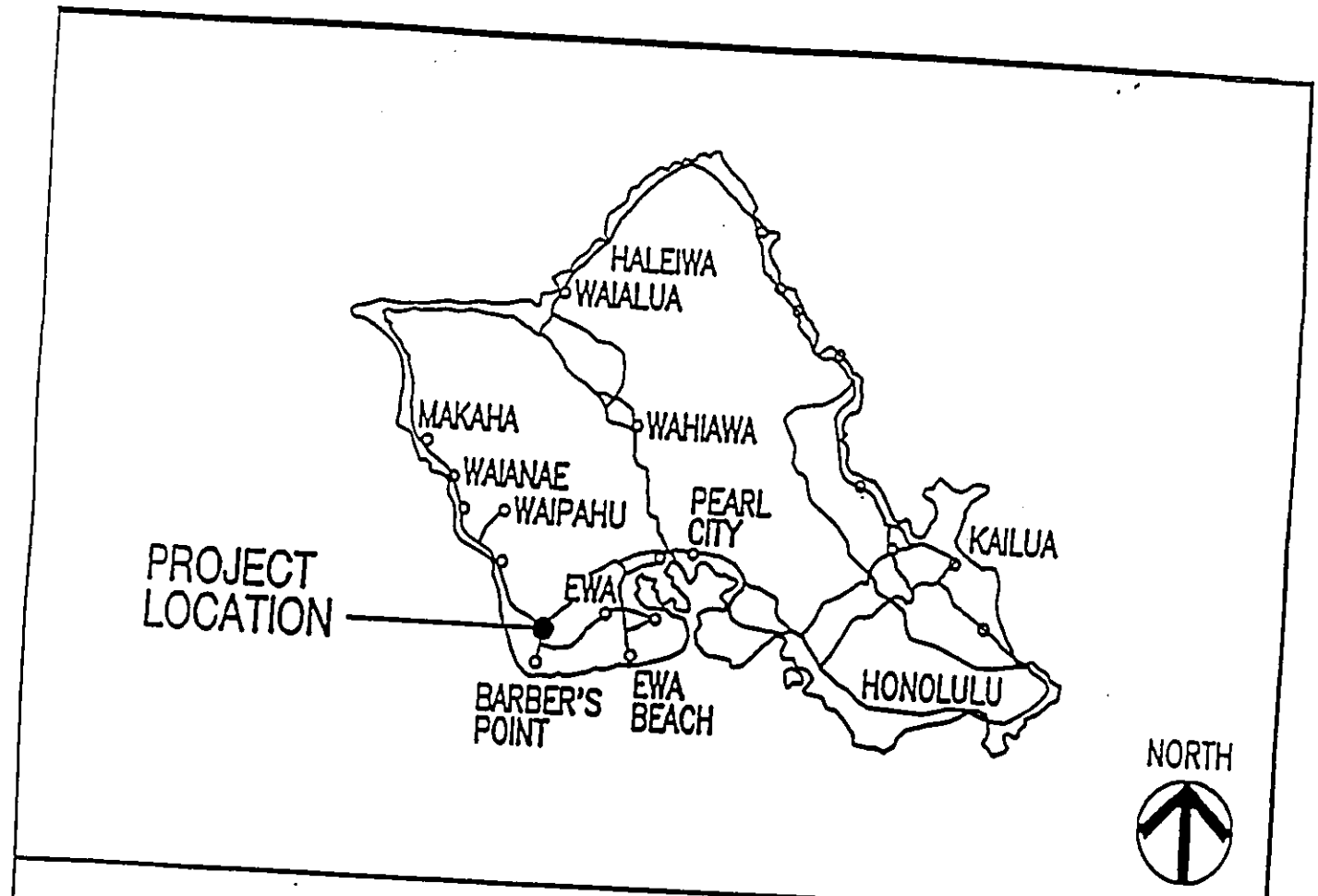
## *I. PROJECT OVERVIEW*

### A. PROJECT LOCATION, EXISTING USE, AND LAND OWNERSHIP

The proposed Kapolei Middle School Project is located on the southwest side of the Island of Oahu, approximately 22 miles west of the primary urban center of Honolulu (see Location Map, Figure 1). The site is located near the center of the Ewa Plain, north of Naval Air Station Barbers Point (NASBP), south of the Makakilo residential community and directly east of the proposed Kapolei Town Center. Further to the west lie the Campbell Industrial Park, Deep Draft Harbor, Ko'Olina resort/residential community, and the existing community of Honokai Hale. Major roadways providing general access to the site area include the H-1 Freeway, Farrington Highway and Barbers Point Access Road (Fort Barrette Road), while Kapolei Parkway provides the direct access to the site (see Vicinity Map, Figure 2). For taxation purposes, the project site is identified as TMK 1-9-16:82 and 83. (See Tax Map, Figure 3.)

The site has been designated Urban for purposes of State Land Use. The zoning pursuant to Act 15, Session Laws of Hawaii 1988, is Residential R3.5 and Low Density Apartment A-1. A school can exist over such zoning, but may require a planned review use (PRU) application. Designated use in the revised Kapolei Development Master Plan of 1993 and by the State Housing Finance and Development Corporation (HFDC) shows portions of the 20 acres encompassing the proposed project site as park and residential. The Kapolei Middle School site is adjacent to a proposed park to the west and single family residents to the south (see Villages of Kapolei (1997), Figure 4). The north border of the project site fronts Kapolei Parkway from the Kama'aha Street intersection at the west end to the newly improved open drainage at the east end. (See Appendix D, Photos of Project Site.)

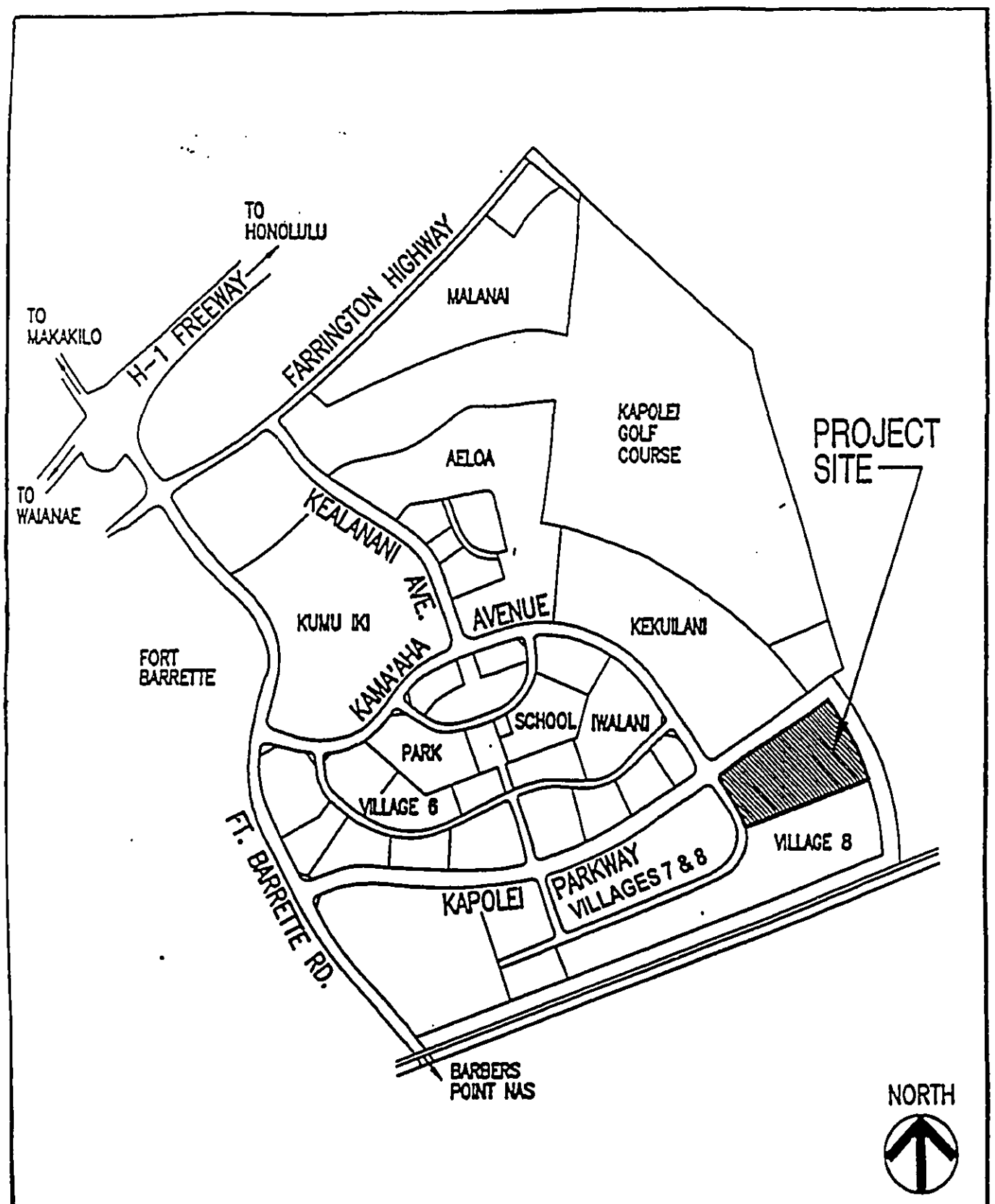
The Kapolei Middle School project site is presently owned by the State of Hawaii and was previously leased to Oahu Sugar Company (OSCo) by the former owner, Campbell Estate, for sugar cane cultivation. All sugar cane cultivation in this area was terminated by OSCo. Such former sugar cane fields located east of the project site just




**LOCATION MAP**
**ISLAND OF OAHU**
NOT TO SCALE

Kapolei Middle School Project
Ewa, Oahu
State of Hawaii

**Figure 1**

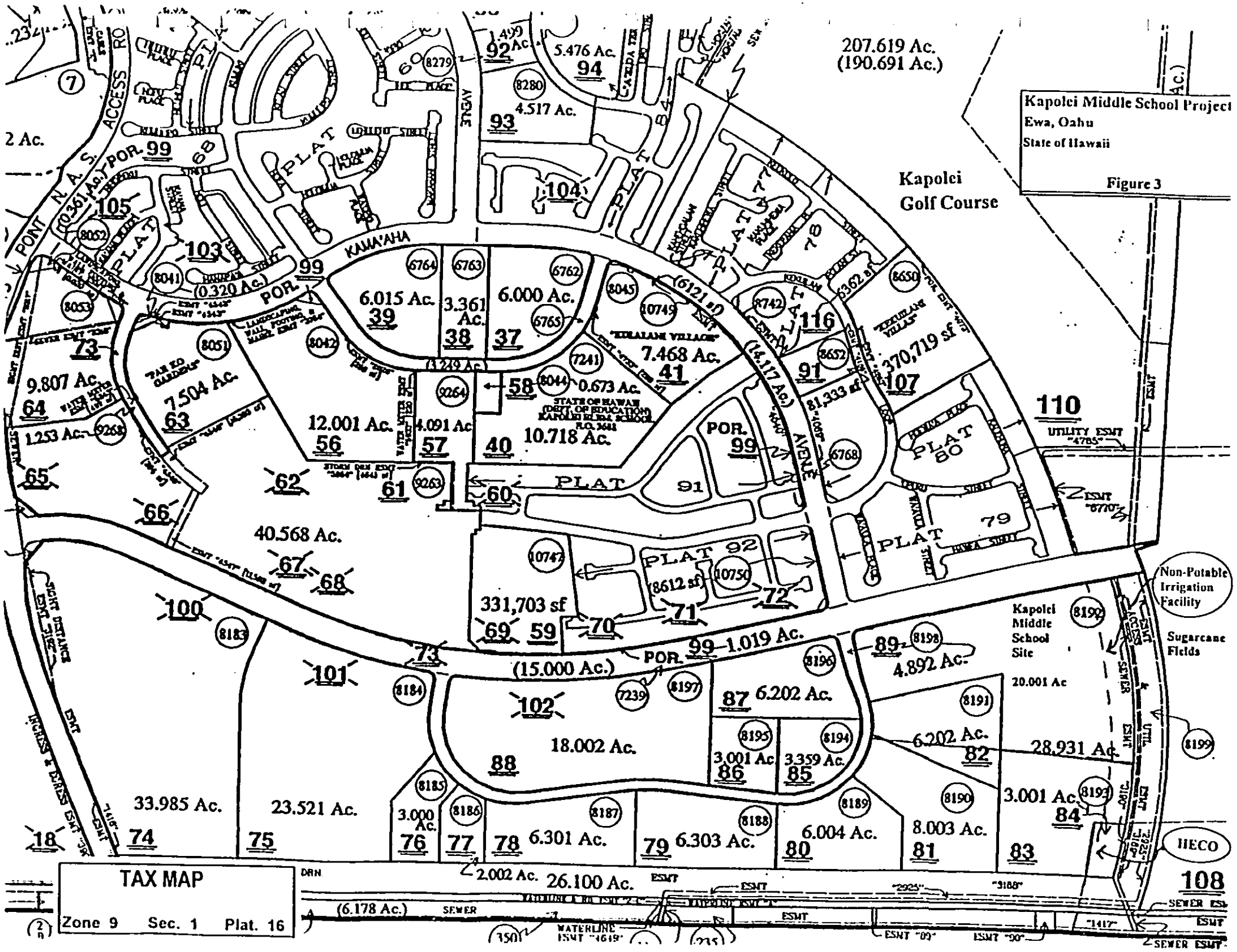


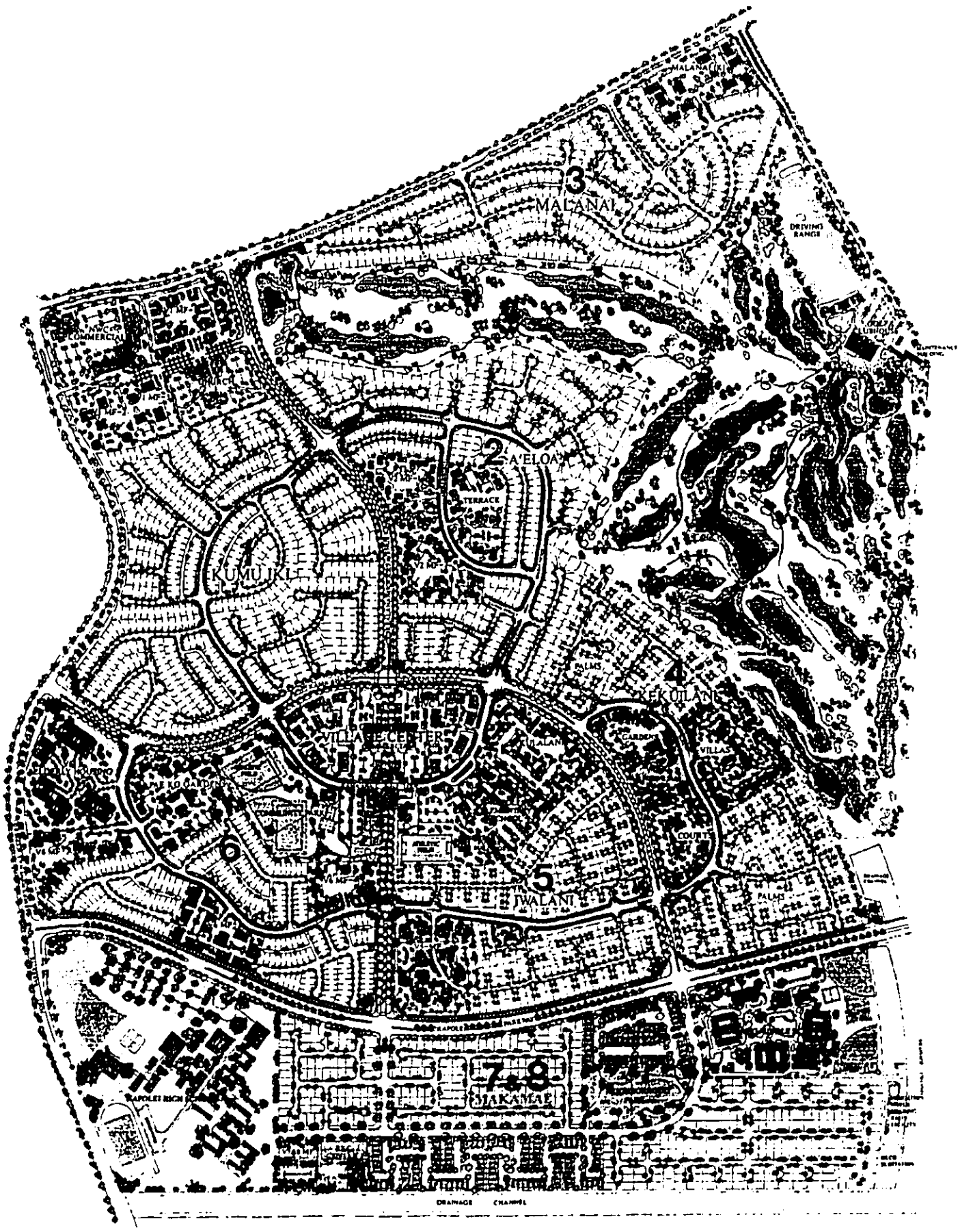

**Kapolei Middle School Project**
**Ewa, Oahu**
**State of Hawaii**

**Figure 2**

## VICINITY MAP

NOT TO SCALE


207.619 Ac.
(190.691 Ac.)
Kapolei Middle School Project
Ewa, Oahu
State of Hawaii
Figure 3
Kapolei
Golf Course
PONT N.A.S. ACCESS RD
KAMA'AHA AVENUE
PLAT 68
PLAT 103
PLAT 104
PLAT 78
PLAT 77
PLAT 116
PLAT 80
PLAT 79
PLAT 92
PLAT 91
PLAT 60
105
99
POR.
(0.361 Ac.)
(0.320 Ac.)
6.015 Ac.
39
3.361 Ac.
38
6.000 Ac.
37
(1.249 Ac.)
7.468 Ac.
41
"KEKAILANI VILLAGE"
(6121 sf)
(14,117 Ac.)
370,719 sf
107
110
UTILITY ESMT "4785"
9.807 Ac.
64
7.504 Ac.
63
1.253 Ac.
65
12.001 Ac.
56
4.091 Ac
57
58
0.673 Ac.
STATE OF HAWAII (DEPT. OF EDUCATION) KAPOLEI ELEM. SCHOOL P.O. 3441
10.718 Ac.
40
POR. 99
61
62
60
40.568 Ac.
66
67
68
331,703 sf
69
59
70
71
72
8612 sf
73
(15.000 Ac.)
POR. 99
1.019 Ac.
4.892 Ac.
89
Kapolei Middle School Site
20.001 Ac
Non-Potable Irrigation Facility
Sugarcane Fields
100
101
102
18.002 Ac.
88
87 6.202 Ac.
6.202 Ac.
82
28.931 Ac.
3.001 Ac.
86
3.359 Ac.
85
3.001 Ac.
84
33.985 Ac.
74
23.521 Ac.
75
3.000 Ac.
76
77
78 6.301 Ac.
79 6.303 Ac.
80 6.004 Ac.
81 8.003 Ac.
83
18
2.002 Ac.
26.100 Ac.
(6.178 Ac.)
SEWER
WATERLINE ESMT "4649"
ESMT "2925"
ESMT "3188"
ESMT "09"
ESMT "90"
ESMT "1417"
SEWER ESMT
HECO
108
TAX MAP
Zone 9 Sec. 1 Plat. 16




Kapolei Middle School Project
Ewa, Oahu
State of Hawaii

Figure 4

# VILLAGES OF KAPOLEI

OAHU, HAWAII
HOUSING FINANCE and DEVELOPMENT CORPORATION

across a drainage channel and south of the Kapolei Golf Course are owned by the State of Hawaii, but these fields have been allowed to lay fallow pending future development of the area. The State of Hawaii owns the railway and roadway rights-of-way makai of the project site and bordering NASBP. There is a small strip of land between the railroad right-of-way and NASBP owned by Campbell Estate. Barbers Point Access Road and Makakilo Interchange are also owned by the State of Hawaii. Kapolei Parkway, along the mauka frontage of the project site, is presently owned by the State of Hawaii but will eventually be dedicated to the City and County of Honolulu. Farrington Highway and Fort Barrette Park (Puu Kapolei) are owned by the City and County of Honolulu; and Naval Air Station Barbers Point (NASBP) is owned by the Federal Government. The proposed project is to be constructed near the southern corner of the Kapolei Golf Course and just north of the proposed Village 8 of the Villages of Kapolei.

## B. PROJECT NEED

The City's 1995 First Biennial Report predicts that with public school enrollment projected to rise 10,000 in the next seven years (i.e. 1996-2003) an eventual need for at least 11 new schools is anticipated in the high-growth areas of Ewa and Central Oahu. (See First Biennial Report: On the Condition of the City and General Plan and Development Plans, Planning Department, City and County of Honolulu, June 1995).

Various studies (e.g. Final Supplemental Environmental Impact Statement for Ewa (FSEIS) by Gentry, 1993) have identified public schools in the vicinity of the project site as Ewa Beach Elementary, Ewa Elementary, Pohakea Elementary, Ilima Intermediate and Campbell High. Other schools in the Ewa District included Barbers Point, Mauka Lani and Makakilo. It was further reported in the 1993 FSEIS that based on anticipated residential growth, additional schools would be required at Kapolei Village, West Loch and Ewa Gentry. Two elementary schools were proposed for Kapolei Village and one each at West Loch and Ewa Gentry. An intermediate and high school were also proposed for Kapolei Village. In 1993 Lester Chuck, Division Head of

the Department of Education (DOE) Facilities and Support Services Branch indicated an additional proposed elementary school at Launani - a location between Ewa by Gentry and Ewa Marina. As of June 1997, according to Ray Minami, CIP Planner and Head of Planning Section of the DOE Facilities and Support Services Branch, the proposed elementary school at Launani is an option that is still being considered to meet the projected demand. In 1993, the school enrollment in the Leeward District was 31,449 students and projections show a 1997 enrollment of 37,466 students (according to DOE's Sanford Beppu, June 1997). The 1988 Ewa by Gentry EIS identified that the Ewa by Gentry Project would generate an increased school enrollment of 3,020 students, based on identification of 7,120 residential units. These projections were increased in the 1993 FEIS to a total student population of 2,905 students based on 8,300 housing units. This will specifically impact on the actual physical facilities required, as well as manpower necessary in the form of teachers and administration. The Campbell complex in Ewa/Makakilo has a total of ten elementary schools (1997 capacities in parentheses): Ewa (685), Mauka Lani (544), Ewa Beach (594), Makakilo (594), Kapolei (543), Holomua (450), Pohakea (613), Kaimiloa (665), Barbers Point (769), and Iroquois Point (1,019) (according to DOE's Sanford Beppu, June 1997). Kapolei High School will serve 1,800 to 2,400 students from the Kapolei Villages, Makakilo, Makaiwa Hills, and Ko' Olina Estates development areas by the 1998-1999 school year. If no new school construction occurred, enrollments at schools would soar far above capacity. In June of 1997, Ray Minami has further indicated that its currently planned elementary school facilities are not designed to meet the projected number of households added to the area by currently approved housing projects. With respect to intermediate and high school facilities, both Ilima Intermediate and Campbell High School will be overburdened by 25 to 30 percent until Kapolei Middle and Kapolei High Schools are completed. According to Ray Minami, the Kapolei Elementary School which will be the prime feeder school to the proposed Kapolei Middle School has already reached its projected capacity of 850 students for 1999. The overflow of students will have to attend already crowded elementary schools in the Kapolei area. Ray Minami stated that there is a "dire need" for the Kapolei Middle School to be

completed as soon as possible to meet the present and future demand. The earliest completion date available for the Kapolei Middle School will be 1999.

## C. PROPOSED ACTION

The proposed action involves the construction of a Middle School on approximately 20 acres of land in the southeast corner of the Villages of Kapolei development. In preparing for the 21st century, the Kapolei Middle School will be only the third public school in Hawaii to incorporate utilization of a design charette process that provided for significant input by the community that the school will serve as well as educators and students. The charette process consisted of a series of intense, brainstorming, project design sessions, in which all appropriate groups came together for periods of concentrated time. The process facilitated and accelerated communication and decision-making, and provided the opportunity for significant input by more people than the traditional design process allows. The design charette for Kapolei Middle School was scheduled in three sessions and held over a three-month period, from November 1996 through January 1997. During this time, a Steering Committee translated the ideas and themes, developed by a Task Force, into the physical design of the school. For further details on the design charette process see The Making of Kapolei Middle School (Design Charette) Final Report (March 1997), for Makai Villages Partnership by Mitsunaga and Associates, Inc.

This unprecedented approach has resulted in a new kind of school design--one that is humanistic as well as future-oriented, infused with local culture as well as advanced technologies.

Some of the highlights of the school design include: three classroom buildings, also called "houses," with movable inner walls that can be retracted to create larger classrooms. Each house will hold 12 classrooms, two science rooms, a common meeting area for large student groups and private activity-study rooms for similar groups; a cultural center that doubles as a cafeteria-assembly hall. The center would

also house classes and rehearsal rooms for band, choir, drama, and Hawaiian history and culture. An indoor stage area would have dressing rooms, while an amphitheater designed for 400 to 600 students would be built outside the building; a science and technology center with facilities for robotics, industrial arts and consumer sciences. The center of the facility would be used for large student projects. There will also be a huge courtyard in the center of the campus that allows administration and faculty members to view activity at the other school buildings.

The school campus will include two ballfields, playcourts, space for a future gym on the east side of the site bordering the area of the non-potable irrigation facility, staff and visitor parking along the northwestern side of the site with access to Kapolei Parkway, a parent pick-up and drop-off area, and a special handicap drop-off area along the western border of the site with access to the Kama'aha Avenue extension. (See Appendix C, Kapolei Middle School Site Plans.)

### D. PROJECT SCHEDULE AND COSTS

Building construction is expected to begin in March 1998, and be completed in May 1999. Total project costs for the Kapolei Middle School is approximately $37,568,000. This includes $2,450,000 for design and $34,168,680 for construction.

## *II. DESCRIPTION OF THE EXISTING ENVIRONMENT*

### A. PHYSICAL ENVIRONMENT

#### 1. Regional Context

The socioeconomic structure of the Ewa area has evolved from one that was primarily agricultural to one that is now principally oriented towards urbanization, including housing, commercial development, and tourism. With this evolution, the demand and need for educational facilities have become more acute. Located in Kapolei, Oahu's growing Second City, the school will serve 1,200 to 1,800 sixth to eighth grade students from NASBP, Honokai Hale, Kapolei and Makakilo. It is designed as a year-round, multi-track school to accommodate large enrollments,

provide flexibility in the use of classroom spaces, use financial and facility resources cost-effectively, and provide a nurturing and exciting academic environment.

The project site and surrounding areas had been planted in sugar cane since the late 1800's, and the entire Kapolei Village site was under lease to OSCo. There still exist sugar cane fields just southeast of the Kapolei Golf Course and east of the Middle School Project Site just across from a drainage channel. This land is owned by the State of Hawaii and managed by the Department of Land and Natural Resources (DLNR), however there are no plans to cultivate the fields and they will remain fallow pending future planned development in this area.

The Ewa-Kapolei area is comprised of many different and distinct communities, both old and new. Existing residential development in the vicinity of the project includes the older Honouliuli residential area, the West Loch residential development and golf course to the east, and the plantation-era Ewa Villages to the southeast. The City of Kapolei, NASBP and proposed Ewa Marina project are also within a one mile radius of the site. To the northeast lies Waipahu town, and to the northwest, the residential community of Makakilo.

## 2. Climate

The climate in the project area is generally dry with northeast tradewinds providing the predominant wind direction, blowing 85 percent of the time with an average velocity of 9 knots. The Ewa Plain experiences light rainfall of approximately 20 inches per year.

Temperatures in the area range from 69-91 degrees farenheight. The warmest average monthly temperature is 80.7 degrees farenheight and the coolest month average temperature is 72.3 degrees farenheight. The highest temperature of record is 93 degrees farenheight, and the lowest temperature recorded is 53 degrees farenheight.

## 3. Topography and Soil Characteristics

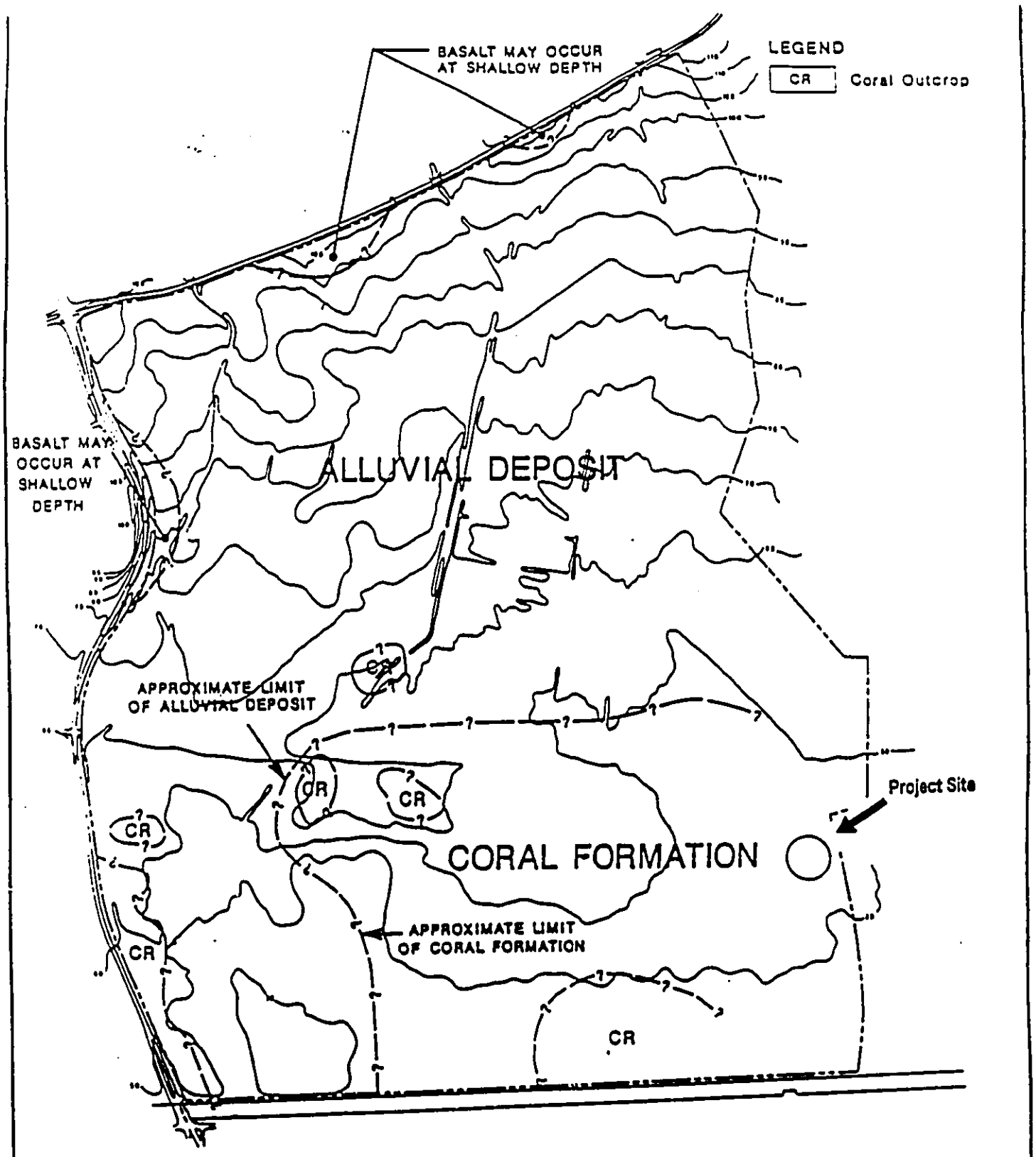
The major topographic feature in the area is the Waianae Range forming the major backdrop of the project area. Intermediate features in the area include: Puu Makakilo (972 feet elevation above mean sea level) (MSL), Puu Kapuai (1,047 feet MSL), Puu Palailai (492 feet MSL), all located directly north of the site; Puu Kapolei (166 feet MSL), located on the Northwestern edge of the site; and two intermittent streams (Makakilo Gulch and Makalapa Gulch).

The site slopes gently from the southwest corner near the access gate of NASBP to the northeast corner adjacent to Farrington Highway. Average slope is less than one percent (0.7). Approximately 90 percent of the site ranges in slope from zero to two percent. The remaining area is in the two to four percent range with a few spot locations in the four to six percent range.

Geologic formations of the site are coral outcrop (CR) for the most part which is generally hard and may require ripping for excavation. The remainder of the site is made up of alluvial deposition.

The excavated coral material can and has provided a good source of low expansive structural fill. Cavities of varying sizes are often found in the coral formation. If encountered, backfilling of the cavities with grout or compacted fill may be required.

Other predominant soil types within the project site consist of Mamala stony silty clay loan 0 to 12 percent slopes, and Waialua silty clay 0 to 3 percent slopes. In general, most of the clays can be classified as low to moderately expansive. Local soft zones in the clay were encountered beneath drainage ditches, irrigation trenches and in area where water leaked from irrigation hoses. Easy excavation and conventional site grading procedures are anticipated for earthwork on these areas. Some of these soils may be moderately expansive and could require special procedures for house




Kapolei Middle School Project

# GEOLOGIC SOIL TYPES

Ewa, Oahu, Hawaii

0' 1000' Figure 5

foundation and school design, such as deep footings, subgrade saturation or capping with non-expansive soils. (See Geological Soil Types Map, Figure 5.)

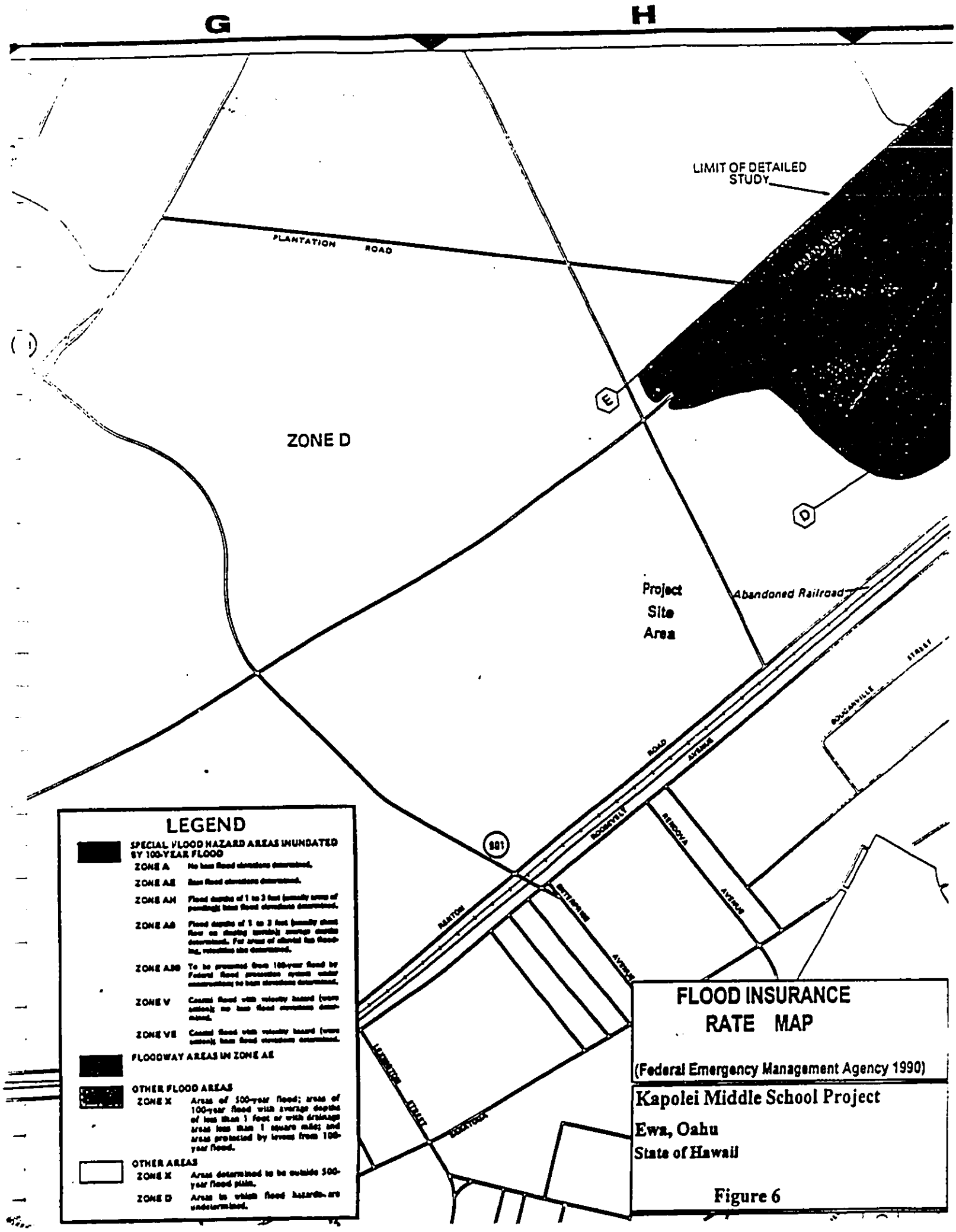
### 4. Flood and Tsunami Hazard

According to the Flood Insurance Rate Maps (Federal Emergency Management Agency 1990) shown in Figure 6, the project area is designated Zone D, areas in which flood hazard is undetermined. However, according to The Making of Kapolei Middle School (Design Charette) Final Report, (March 1997), the Kapolei Middle School was designed to be outside of the 100-year flood plain as determined by the Federal Emergency Management Agency. Retention and detention basins have been provided by the Housing Finance and Development Corporation for the entire Villages of Kapolei.

### 5. Flora and Fauna

The project site was under sugar cane (saccharum offinarum) cultivation prior to initial grading for the Villages of Kapolei in the late 1980s. Agricultural lands are dynamic systems, changing with the different stages of cultivation practices. Cane fields may vary from newly harvested, bare field to shore stature, open stands to tall stature, very dense stands. The fast-growing sugar cane tends to shade out and out-compete other plants to form large monodominant stands. The weedy species associated with sugar cane cultivation include nutgrass (Cyperus rotundus), swollen fingergrass (Chloris inflata), red pualele (Emilia fosbergii), snowthistle (Sonchus oleraceus), and hairy spurge (Euphorbia hirta). Presently, wild bitter melon (Momordica charantia var. pavel) and little bell (Ipomoea triloba) are locally common vines now found along the margins of the fields on the project site which is predominantly covered by common scrub vegetation. According to a biological study conducted by Char & Associates in 1987, which included the project site area, and a June 1997 site inspection by environmental consultants of Mitsunaga and Associates, no threatened or endangered flora occur at the project site.

Because of the many years the project site has been under sugar cane


G
H
LIMIT OF DETAILED STUDY
PLANTATION ROAD
ZONE D
E
D
Project Site Area
Abandoned Railroad
ROOSEVELT AVENUE
BOUGAINVILLE STREET
MARTIN
ROOSEVELT AVENUE
LEGEND
SPECIAL FLOOD HAZARD AREAS INUNDATED BY 100-YEAR FLOOD
ZONE A
ZONE AE
ZONE AH
ZONE AO
ZONE A99
ZONE V
ZONE VE
FLOODWAY AREAS IN ZONE AE
OTHER FLOOD AREAS
ZONE X
Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
OTHER AREAS
ZONE X
Areas determined to be outside 500-year flood plain.
ZONE D
Areas in which flood hazards are undetermined.
FLOOD INSURANCE RATE MAP
(Federal Emergency Management Agency 1990)
Kapolei Middle School Project
Ewa, Oahu
State of Hawaii
Figure 6

cultivation, the area is not a suitable habitat for native birds. Various surveys of the Ewa area conclude that the entire region has been disturbed for over a hundred years, resulting in severe alteration of the native ecosystem. The only mammals known to inhabit this altered ecosystem are introduced species such as feral cats, dogs, rats, mice, and mongooses.

### 6. Archaeological Resources

Based on a September 1987 comprehensive study of the entire villages of Kapolei area (i.e. EIS Kapolei Master Plan Project) conducted by Paul Rosendahl, Ph.D., Inc., consulting archaeologist of the Kapolei area, which included the 20+ acre site designated for the Kapolei Middle School, it was determined that:

> *no potentially significant archaeological sites or features of any kind were encountered during the reconnaissance survey of the Kapolei Project area.*

Also, the 1992 *Environmental Impact Statement for the Kapolei Sports and Recreation Center* involves a 475-acre site of which 150 acres borders the eastern side of the Kapolei Middle School site. Based on the comprehensive document research and consultations with the Chief State Archaeologist, Ross Cordy during the completion of this EIS, it was determined that:

> *the presence of any archaeological sites of any significance on the surface or subsurface of any of the alternate sites is unlikely because of the continuous cane cultivation for nearly 70 years.*

### 7. Air Quality

There are no State Department of Health air monitoring sites in the immediate vicinity of the project site. The nearest monitoring stations are at Pearl City and Barbers Point, which measure particulate matter. Particulate matter levels are well below the State standard levels at these sites. Air quality at the project area was

expected to be comparable or somewhat better, given the site's more rural location. The State Department of Health (DOH) monitors air quality at various locations on Oahu. Typically, however, each station does not monitor the full complement of air quality parameters. The annual air quality measurements that were made nearest to the project site at the Barbers Point station for each of the regulated air pollutants generally indicate that Ambient Air Quality Standards (AAQS) as defined by the DOH and Federal Environmental Protection Agency have not been exceeded. It appears likely that the State AAQS for sulfur dioxide, nitrogen dioxide, and lead are currently being met at the project site. The ozone AAQS has not been exceeded during the past four years at the Sand Island monitoring station. Carbon monoxide readings from urban Honolulu at the DOH Building station indicate the State AAQS may be exceeded at a rate of one to three times per year, but only in traffic-congested areas. As such, the AAQS for carbon monoxide at the project site has probably not been exceeded.

Several sources of industrial air pollution are located at Campbell Industrial Park, which is located at Barbers Point to the southwest about three miles of the project site.

Companies currently operating at Campbell Industrial Park include the Chevron and PRI refineries, H-Power, and others. Prevailing winds from the northeast will carry these emissions away from the project site most of the time, although southwesterly winds, occurring less than 5 percent of the time, will carry emissions toward the site. It should be noted that all the buildings of the Kapolei Middle School except the cafeteria will be air-conditioned so most of the indoor activities will be unaffected by even the minimum impacts of air quality.

### 8. Noise

Existing noise levels in the vicinity of the project area are mostly generated from NASBP operations and sugarcane cultivation activities. Noise impacts of aircraft operations from NASBP on the project area and surrounding environment have been the subject of a number of studies. However, it should be noted that NASBP is being

phased out and potential impacts associated with military aircraft in the area will not be an issue in the long-term. The other potential noise generator in the project area is sugar cultivation from an existing field just east of the project site. However, sugar cane cultivation of the fields just across the drainage channel from the project site and south of the Kapolei Golf Course has been phased out. The State Department of Land and Natural Resources (DLNR) which manages this land is allowing these fields to lay fallow pending projected future development in this area. Also, as noted above all the buildings of the Kapolei Middle School campus except the cafeteria will be air-conditioned, which will minimize noise impact on most indoor activities.

**Aircraft** The major source of noise in the Ewa area is the aircraft taking-off from and landing at NASBP. The Department of Defense established the Air Installations Compatible Use Zone (AICUZ) Program to protect the public's health, safety, and welfare while maintaining the operational capability of military air installations. The purpose of the AICUZ program is to develop information which describes the noise level and flight clearance requirements of military airfield operations. This information can be used by landowners and government regulators in achieving the highest and best use of adjacent lands while assuring the health, safety, and welfare of existing and prospective residents. The NASBP AICUZ was first established in 1976, updated in 1984, and again in 1989. Also presented is Figure 7 which depicts aircraft noise level patterns originating from commercial aircraft landing or taking off from nearby Honolulu International Airport (HIA), and as such considers the cumulative noise effects from both NASBP and HIA as indicated. It should be noted that Figure 7A is for informational purposes only and is not the Navy's official AICUZ map.

The noise descriptor currently used by federal agencies to assess environmental noise is the Day-Night Average Sound Level (Ldn). The descriptor incorporates a 24-hour average of instantaneous A-Weighted Sound Level as read on a standard Sound Level Meter. Sound levels which occur during the nighttime hours between 10:00 p.m. to 7:00 a.m. are increased by 10 decibels (dB) prior to computing the 24-hour average

by the Ldn descriptor. As a general rule, noise levels of 55 Ldn or less occur in rural areas and urbanized areas which are shielded from high volume streets. In urbanized areas, levels generally range from 55 to 65 Ldn, usually dependent on traffic noise from motor vehicles.

For the purpose of determining noise acceptability for funding assistance from federal agencies (FHA/HUD and VA) to purchase residential property, an exterior noise level of 65 Ldn or lower is considered "acceptable." It should be noted that, due to Hawaii's open living conditions and the predominance of naturally ventilated dwellings, an exterior noise level of 65 Ldn does not eliminate all risks of noise impacts. For these reasons, a lower level of 55 Ldn is considered as the "unconditionally acceptable" level of exterior noise. However, upon consideration of the feasibility of applying the lower 55 Ldn standard government agencies such as FHA/HUD and VA have selected 65 Ldn as a more appropriate regulator standard. It has been this standard that is applied for all existing residential development in the vicinity of the Middle School site.

The U.S. Navy has prepared an Air Installations Compatible Use Zone (AICUZ) Study (1984) which established off-station contours and safety zones. The AICUZ Study identifies significant noise impacts to the project site. The project site lies within the 60 Ldn to 65 Ldn contours.

The 1984 AICUZ Report establishes three Accident Potential Zones (APZ-for aircraft landing and take-off operations) essentially radiating off the runway and aircraft flight tracks. These include **Clear Zone** - with the highest potential hazards; **APZ I** - which have some degree of density restrictions where all forms of residential development are disallowed; and **APZ II** - the least hazardous where *most forms of open space, industrial, commercial, and scattered low density residential uses are considered compatible.* A primary concern is that the building structure and/or improvements not reflect glare, emit electronic interference, or produce smoke. Almost the entire 20+ acres designated for the site is clearly outside even the least hazardous

APZ II area. A slither of APZ II zoned land borders the corner of the project site. However, according to the Site Plan, this particular site is designated for a ballfield, which would be compatible with the APZ II requirements and restrictions. (See U.S. Navy AICUZ Map, Figure 7A.)

### 9. Visual Resources

The predominant view from the site is of the Waianae Mountain Range located approximately three miles to the north. Other views include the primary urban center with Diamond Head visible approximately 25 miles to the east; the Pacific Ocean, NASBP, two miles to the south; and of Puu Kapolei (peak height 166 feet MSL) directly to the west. (See Appendix D, Photos of Project Site.)

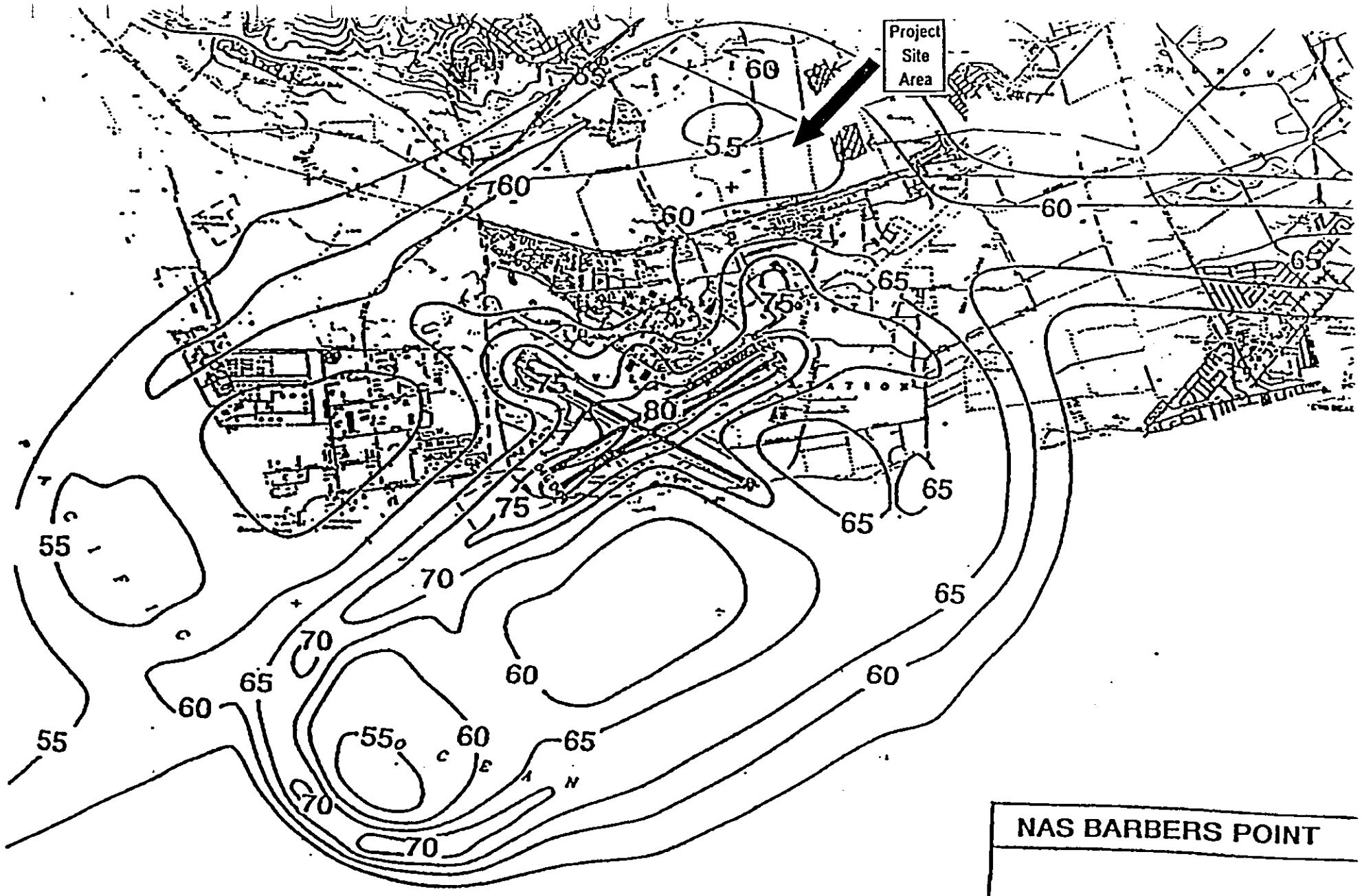
## B. SOCIO-ECONOMIC ENVIRONMENT

### 1. Land Use History

In 1793, Vancouver, the British explorer, anchored off the entrance of what is presently designated as West Loch. According to Vancouver, the area did not seem to be populous, nor to possess any great degree of fertility. However, he was told that at a short distance from the sea, the soil was rich, and all necessaries of life were abundantly produced. Historically, the area was famous for the taro variety known as "kai koi o Ewa." These fields no longer exist in the Ewa area.

In 1879, James Campbell developed the first artesian well near the West Loch area. The development of a reliable water source in this barren area provided the water for the development of the sugar industry which flourished for the next 60 to 70 years.

The project site is in the Villages of Kapolei Project which itself is part of the larger Campbell Estate Long Range Master Planned Development for Kapolei. The State Housing Finance and Development Corporation is developing the Villages of Kapolei master planned residential community at Kapolei. The first homes in the




Patterns indicate combined LDN noise contours generated by both NASBP and Honolulu International Airport.
Unofficial AICUZ Map. For information only.

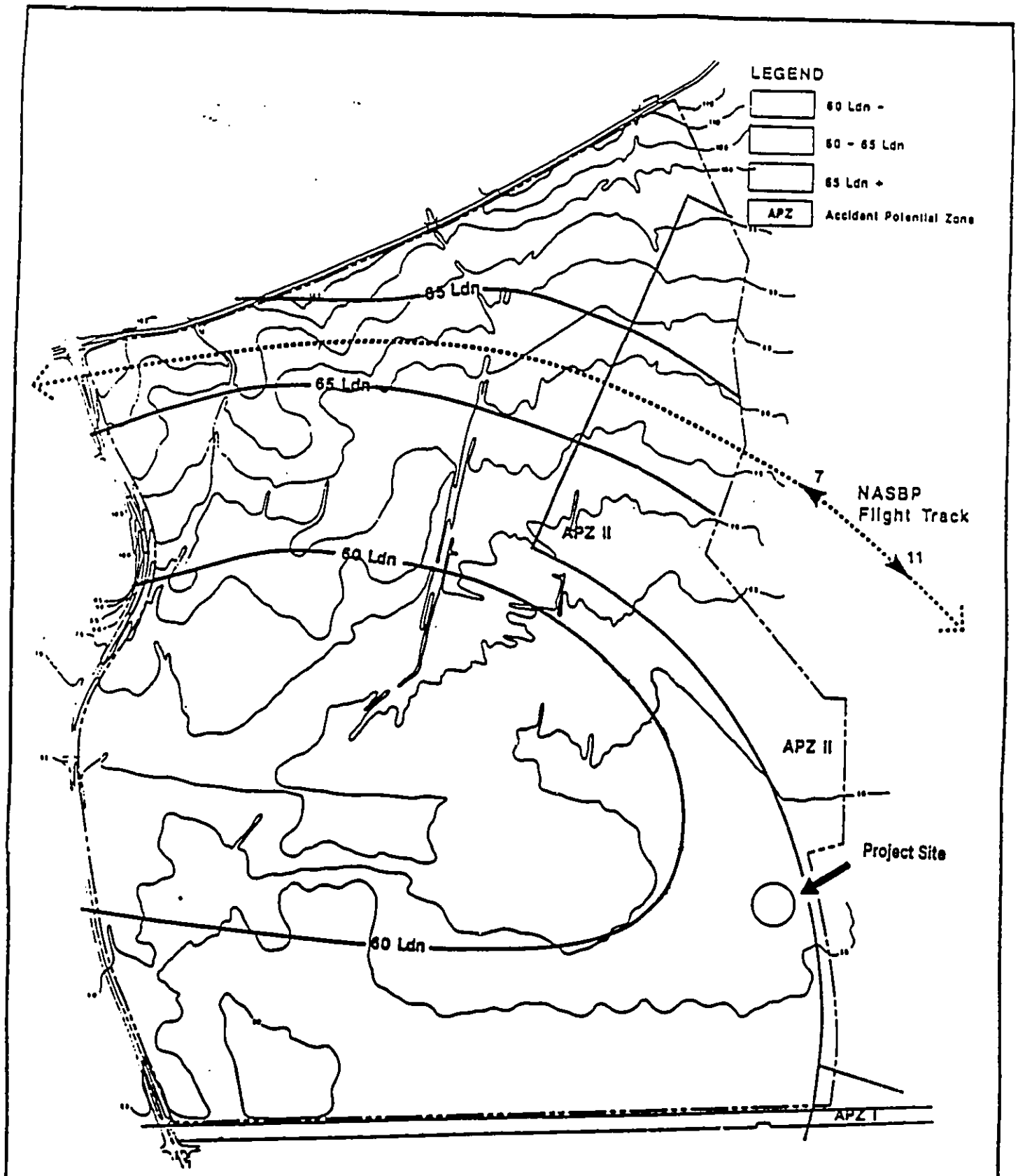
**Kapolei Middle School Project**
Ewa, Oahu
State of Hawaii

**Figure 7**

**Ldn for both NASHP and Honolulu International Airport**

SCALE IN FEET
0 2000 4000 8000

HARRIS MILLER MILLER & HANSON




Kapolei Middle School Project

## U.S. NAVY AICUZ

Ewa, Oahu, Hawaii

0' 1000'

Figure 7A

Villages of Kapolei were completed in 1990, with up to 5,000 units on 890 acres planned at buildout. Kapolei will include a variety of residential types, including market rate and affordable single and multi-family units, rental and elderly housing. A full range of community support facilities have been and continue to be constructed at Kapolei, including an 18-hole golf course, parks and recreational amenities, churches, schools and commercial areas.

## 2. Population

A population policy of the City and County General Plan is to "encourage development within the secondary urban center at Kapolei and the Ewa and Central Oahu urban-fringe areas...to meet housing needs not readily provided in the primary urban center."

The following Table 1 compares the General Plan's population growth guidelines with population projections for Ewa, for the years 2010 and 2020. The figures are based on a projected Oahu-wide population of 1,012,100 persons in the year 2010, and 1,071,200 persons in the year 2020 (Planning Department, Preliminary Data 1995).

**Table I**

**Year 2010 and 2020 Population in Ewa: Policy vs. Projection**

| | Share of Island Population | Population |
|---|---|---|
| **Year 2010** | | |
| General Plan Policy | 12.0% - 13.3% | 121,452 - 134,609 |
| Planning Dept. Forecast* | 10.2% | 103,300 |
| **Year 2020** | | |
| General Plan Policy | 12.0% - 13.3% | 128,544 - 142,470 |
| Planning Dept. Forecast | 11.7% | 124,800 |

*Preliminary Data, Honolulu Planning Department 1995. Population forecast includes DP approved and proposed projects, including The Villages of Kapolei. *Source: Planning Department*

### 3. Economy

Cumulatively, the increased population in the Ewa region will provide additional justification for already-proposed regional infrastructure improvements, public services and commercial development. Although the project will not result in a net "increase" in Oahu's population or employment, it will cause population and jobs to be located in Ewa. This growth of the Ewa region is consistent with City and State population policy objectives.

## C. PUBLIC SERVICES

### 1. Recreational Facilities

Existing public parks in the project region include Ewa Mahiko Neighborhood Park, Puuloa Neighborhood Park, Makakilo Community Park, Geiger Park Gentry, and the new Kapolei Community Park. In addition, the City is planning a new district park at either Ewa Mahiko or near Ewa Villages. The City also expects to acquire a major new regional beach park within the Barbers Point Naval Air Station upon closure of the base.

### 2. Police and Fire Protection

The area is presently served by the Waianae Police Station in the Honolulu Police Department's District 8. The Waianae station services the area from Kunia to Kaena Point. There are presently five beats in the Ewa area with one officer per beat, 24-hours a day, seven days a week. The police officers assigned to the Ewa area work with the community through two channels: the volunteer Neighborhood Security Watch and the Community Policing Team 6, the latter an effort to directly involve the community with crime prevention efforts. According to sources at the Honolulu Police Department (HPD), there are plans to increase the total number of police beats in the Ewa area: five beats to serve Kapolei and three beats in the Makakilo area. The proposed Kapolei Police Station is planned for completion by 1999.

The Ewa area is served by four fire stations: Makakilo Station, serving Makakilo,

upper Kapolei and Ko' Olina Estates; the Waipahu Station, serving lower Kapolei, Ewa by Gentry and Ewa area to Renton Road; the Ewa Beach Station, serving all of lower Ewa Beach up to Renton Road; and the recently completed Kapolei Fire Station. The Waipahu Station, which has 23 fire fighters, assists the Ewa Beach Station when necessary. The Kapolei Fire Station has both a ladder company and an engine company with a total of 10 firefighters. The Waikele Fire Station due for completion in 1998, will also assist the Kapolei Fire Station when necessary.

### 3. Solid Waste

Refuse collection from residential areas in the Ewa-Kapolei area near the project site is provided by the City and County of Honolulu. Non-residential uses and multi-family residential areas are serviced by private refuse collection companies. Residential waste is transported to the City and County of Honolulu's H-POWER (Honolulu Program of Waste Energy Recovery) waste-to-energy combuster, located at the James Campbell Industrial Park. Ash residue and nonprocessible waste are then disposed of at the Waimanalo Gulch Landfill in west Oahu.

### 4. Health Care

Saint Francis-West Medical Center is the full-service hospital closest to the proposed project. The hospital is approximately five to 15 minutes from the site, depending on traffic conditions. St. Francis-West provides a full range of hospital services, including emergency care, outpatient treatment, laboratory and x-ray facilities and medical offices. The hospital has 100 licensed beds available. Ambulance service is coordinated with the City and County and the hospital has a helipad for medivac transport. St. Francis-West is currently operating at 80 to 85 percent of capacity.

Other medical facilities within a 20 to 30 minute drive include the Waianae Coast Comprehensive Health Center, Pali Momi Medical Center at Pearlridge, Wahiawa General Hospital, and Kaiser Permanente's Punawai Clinic in Waipahu.

Non-emergency services are provided by local general physicians.

5. **Schools and Libraries**

A Social Impact Assessment conducted by Community Resources, Inc. prepared in 1994 and updated in 1995, analyzed schools and libraries. The 1994 study described existing conditions and estimated project demand for these facilities, as summarized below.

*Primary and Secondary Schools.* The project is within the State Department of Education's (DOE) Leeward School District and is within the Kapolei Elementary School service area. According to the DOE, the rapid development in the Ewa-Kapolei area has created a pressing need for additional schools and classroom space. The proposed and projected Capital Improvement Program (CIP) budgets for the next three bienniums are already severely strained by the lack of CIP funds to build adequate classrooms.

The Ewa area is currently served by one high school (Campbell High School); one intermediate school (Ilima Intermediate School) and five elementary schools (Ewa, Mauka Lani, Ewa Beach, Makakilo and Kapolei). Kapolei Elementary School, opened in 1994, is undergoing a subsequent and final phase of construction, to provide cafeteria and library facilities which will be completed by Fall 1997. For the 1994-95 school year, Kapolei Elementary had an enrollment of 350 students, with a projected enrollment between 800 and 850 when the school is completed. A new elementary school within the Ewa by Gentry project, Holomua Elementary, opened in September 1996.

The Department of Education has plans to open a new Kapolei Middle School at the proposed project site on 20-acres and Kapolei High School on 45-acres, in the Villages of Kapolei. Other elementary schools planned for the Leeward District (e.g.,

Ko' Olina, Waikele, Royal Kunia) will also accommodate the increasing regional population.

*Post-Secondary Education.* The nearest post-secondary educational facility is the University of Hawaii-West Oahu, located in temporary quarters at the Leeward Community College (LCC) in Pearl City. In 1995, in response to economic recession in the State, Governor Ben Cayetano negotiated a land exchange with Campbell Estate to provide funding to build UH-West Oahu at Kapolei. According to the terms of this agreement, the University of Hawaii has received 941 acres of land above the H-1 Freeway at Kapolei, the "second city," on the slopes of Puu Kapuai. Among other conditions, the land exchange involves the improvement and sale by the State of the original UH-West Oahu site, below the H-1 Freeway, with the use of net proceeds from the sale designated for development and construction of the UH-West Oahu campus. In a 1995 press release the Governor stated, *This land exchange is only the first step towards realizing my vision for West Oahu and the people who live there. By building on the slopes of Puu Kapuai, we will create a great campus that can be seen by all. This land deal demonstrated my administration's commitment to higher education and the City of Kapolei.*

In 1996, UH Board of Regents (BOR) approved the Governor's plan and decided that UH-West Oahu will remain in an interim site at LCC until a new campus is built. However, the BOR decided that UH-West Oahu will be expanded by the movement of 19 buildings from Kapiolani Community College (KCC). In April 1996, the Legislature approved funding for moving the buildings from KCC to UH-West Oahu and approved the Governor's land exchange plan for funding a new campus.

A permanent home for the institution has been identified, and for the first time the Legislature has established mechanisms to fund the development and construction of a new campus in Kapolei. Meanwhile, UH-West Oahu continues to function as an

upper-division baccalaureate institution providing an essential service to the people of West Oahu.

In a related development, the Legislature passed Act 276 Session Laws of Hawaii 1996 (SLH) which mandated the transfer of the Center for Labor Education and Research (CLEAR) from the UH-Manoa to the UH-West Oahu campus. The physical transfer of CLEAR is scheduled for the Fall of 1997 and Spring of 1998. In addition, the 1997 Legislature increased the number of temporary buildings at the UH-West Oahu interim site from 19 to 28. CLEAR is expected to occupy three of these buildings on the UH-West Oahu campus and provide college level labor-related educational services and various certificate programs to residents of West Oahu.

*Library Services.* Ewa Beach Public Library serves approximately 40,000 residents within the Ewa area. The combination school and public library is a full-service library situated on the Campbell High School campus. There are currently plans to construct a major new Kapolei Library within the City of Kapolei, to serve as a "second anchor" to Honolulu's Downtown library. There are also long-term plans to separate the Ewa Beach School and public library into two facilities.

## D. INFRASTRUCTURE

### 1. Roadways

The project site is well served by regional and local road systems (Figure 7-1). Major public roadways adjacent to the site include Farrington Highway, a two-lane highway mauka of the project site and Barbers Point Access Road (aka Fort Barrette Road), a two-lane highway west of the site. Further north of the site is the H-1 Freeway allowing access to the site via the Makakilo Interchange. The H-1 Freeway has been upgraded from four lanes to six lanes. Also, the project site fronts Kapolei Parkway, a six-lane roadway which fronts the entire northern border of the site. Future plans for Kapolei Parkway include extension of the road eastward over and across the drainage channel via a bridge, towards Ewa by Gentry and Ewa Beach. Additional access to the

site is provided by Kama'aha Avenue, a four-lane roadway, which runs directly into the site at the intersection with Kapolei Parkway.

Other roadways located in and around the project site include: Waimanalo Road, a private agricultural road used previously by the Oahu Sugar Company to transport harvested sugarcane to the mill in Waipahu; the State-owned OR&L Railroad right-of way (ROW), located adjacent to the southern boundary of the project site, extending from Pearl Harbor to the Ko'Olina Resort; and Hanson Road, paralleling the OR&L ROW inside the NASBP boundary, connecting Geiger Road and Fort Weaver Road, providing military access to the major residential communities of Ewa Beach and Iroquois Point.

Traffic on Farrington Highway, west of Barbers Point Access Road, exhibits directional splits during peak periods typical of suburban commuter routes. East of Barbers Point Access Road, eastbound and westbound traffic are almost evenly distributed. Major employment areas (Campbell Industrial Park and NASBP) attract west bound traffic during the morning which balances eastbound commuter traffic from the Kapolei residential area. Highest hourly traffic on Farrington Highway adjacent to the project site occurs in the afternoon. However, in the short-term it is expected that most of the traffic involved with the Middle School will occur within the Kapolei Villages complex itself along Kama'aha Avenue and along Kapolei Parkway which ends at the east end of the project site. Therefore, no major traffic impacts will result.

The Ewa Regional Highway Master Plan is specifically referred to as a working plan to maintain consistency with ongoing land use development in the Ewa region. For further details see Ewa Region Highway Master Plan Working Group: Ewa Region Highway Transportation Master Plan, 1997 and 2005 Roadway Concepts (February 1992). The study has generated roadway concepts for future years based on planning projections. Planning projections also are available from both the City & County of Honolulu Planning Department. In addition, the major facilities of the roadway master

plan are shown on the Kapolei Area Long-Range Master Plan. Information from these and other relevant sources were incorporated in the Final Traffic Impact Study Villages of Kapolei in 1994 by R. M. Towill Corporation. All of the above studies were updated relevant to the Kapolei Middle School in a more recent study in April 1996, by Julian Ng, Inc., Villages of Kapolei Update of Traffic Impacts. The Ng study makes assessments of the Kapolei future traffic conditions relevant to the Middle School and provides recommendations to accommodate traffic impacted by the Middle School. Ng concluded that there will be no major impacts from traffic as long as these accommodations for projected school traffic are made. However, it should be pointed out that according to DOE's Sanford Beppu (June 1997), that the Villages of Kapolei Update of Traffic Impacts (Julian Ng, 1996), does not factor in a possible intersection on Kapolei Parkway approximately 800 feet from Fort Barrette Road. This intersection would link the new high school and Village 6 via a connection to Kaiau Avenue. In addition, Sanford Beppu notes that the Update shows Collector Road "D" as a dead-end at the eastern boundary of the high school site. Moreover, according to Sanford Beppu (June 1997), DOE's previous discussions with DAGS and DTS resulted in this road being planned as a secondary access for the high school. However, in the last analysis it should be pointed out that in The Making of Kapolei Middle School (Design Charette) Final Report (March 1997), Mitsunaga and Associates noted that they will reassess and follow any revised recommendations made by traffic consultant Ng, R. M. Towill and HFDC in consensus and consultation with DOE, DAGS, and DTS. (See Traffic Assessment for Kapolei Middle School by J. Ng, May 1997 in Appendix E).

### 2. Wastewater

The area of the project site and along with the greater Ewa-Kapolei area is served by the City & County's Honouliuli Wastewater Treatment Plant (WWTP), adjacent to the NASBP. The Honouliuli WWTP also services Central Oahu and the Primary Urban Center areas west of Red Hill, with the exception of military installations and facilities. Wastewater currently receives advanced primary treatment and is disposed via the Barber's Point Ocean Outfall.

The secondary treatment system at Honouliuli was recently completed, and according to project engineers, can accommodate future use by the Middle School. It is designed to accommodate 13 million gallons per day (mgd) of sewage for secondary treatment. The City plans to reclaim and distribute this wastewater effluent, provided that paying customers can be found for the non-potable water. This is consistent with current policies established by the City and County's Department of Wastewater Management requiring that treated effluent be used for irrigation and other uses where feasible. In fiscal year 1997-98, the Department of Wastewater Management will conduct a pilot project at Honouliuli to study the potential of using the reclaimed water for Ewa caprock aquifer recharge. The pilot project will be expanded to provide the full 13 mgd of recharge, provided that customers can be found to pay for the capital costs of the distribution system and for operating and maintaining the facility.

A wastewater system with sewage transmission line capacity is in place for the Villages of Kapolei. The Middle School site will be connected to the existing system along Kama'aha Avenue provided that the City and County Department of Wastewater Management approves sewer treatment capacity and connection approvals to the Honouliuli Wastewater Treatment Plant.

### 3. Water

In 1987, the State enacted the State Water Code in order to protect, control and regulate the use of the State's water resources. The State Commission on Water Resource Management (CWRM) is responsible for the administration of the State Water Code, and has designated water management areas (WMAs) in those areas where water resources may be threatened by existing or proposed withdrawals or diversion. The project area is located within the Pearl Harbor Water Management Area (WMA), the largest groundwater body on Oahu, which supplies over 50 percent of Oahu's municipal water demand. Groundwater withdrawals within the Pearl Harbor WMA are regulated by the CWRM. The City & County Board of Water Supply (BWS) coordinates the development and allocation of potable water for urban use on Oahu.

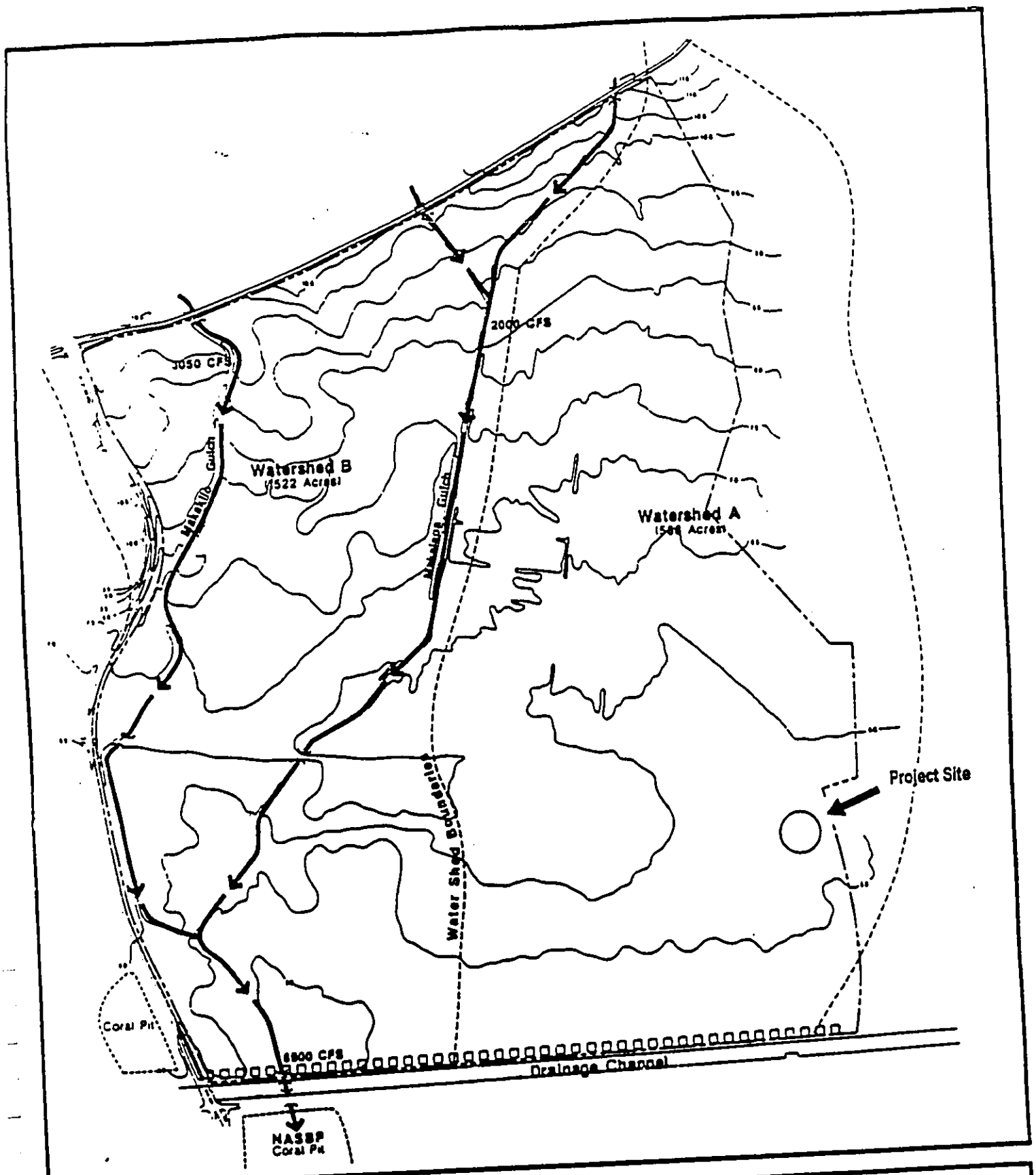
Based on the design enrollment of students for the Kapolei Middle School, the May 1997 water demand was calculated to be 105 gallons per minute (gpm) by the project's water engineers of R. M. Towill. However, it should be noted that no water allocation for the school is presently available and the developer will have to secure all necessary approvals or appropriate water allocations for projected use and future demand.

A dual water system is planned for the project in accordance with City and State policies which encourage the conservation of potable water resources and allow the use of non-potable water for irrigation and other appropriate uses. Non-potable systems in single family residential areas are not encouraged due to potential health and liability issues. However, current City policies require development of an adequate non-potable water supply for the project's schools, parks, commercial areas and for irrigation along major roadways. Water efficient landscaping should be used whenever and wherever possible to reduce irrigation demand. BWS has also noted that installation of a dual water system may be an option within multi-family residential areas, to further decrease potable water demand. There is presently an existing potable water system in place which serves the Villages of Kapolei. The Middle School will be connected to the existing system along Kama'aha Avenue. Also, a non-potable irrigation system exists within Kapolei and is in the process of being activated. Irrigation for the Middle School will be connected to the existing non-potable system. However, it should be noted that a non-potable water allocation is not provided at this time.

### 4. Drainage and Hydrology

There is an excellent newly improved drainage system on the project site. In general, storm runoff from the area above the Kapolei Villages on Farrington Highway are conveyed through three culverts crossing Farrington Highway to the Kapolei Villages area.

Previously, the runoff passed through the project site via cane field ditches to




Kapolei Village

**HYDROLOGY**

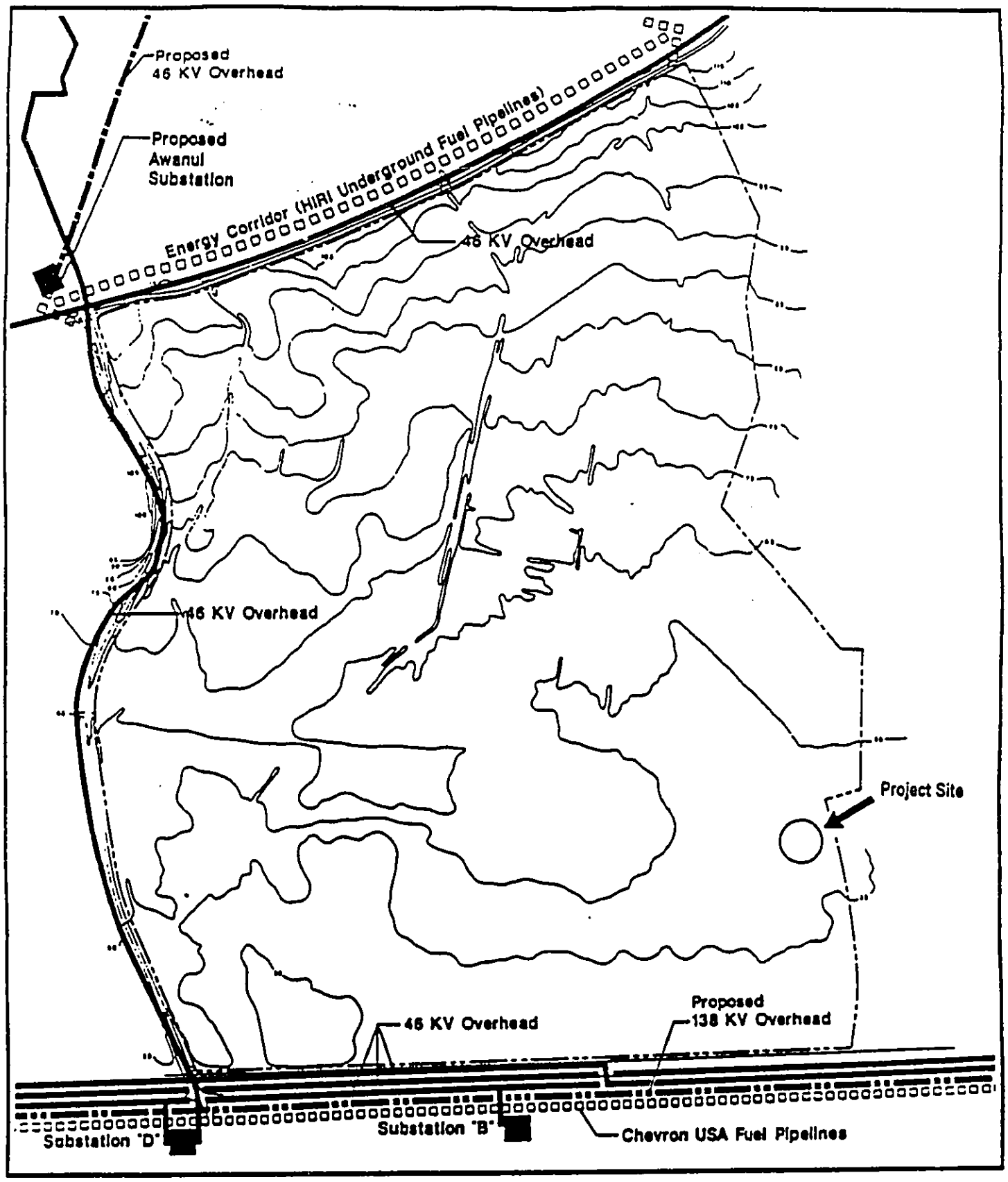
Ewa, Oahu, Hawaii

Figure 8

NASBP. Some of the runoff entered a large coral pit located in NASBP, while some runoff flowed through NASBP. However, based on the "Ewa Drainage Study" and other drainage studies done in 1995 which provided detailed information on the previously existing drainage conditions, numerous drainage improvements were made and others are still in progress for the Kapolei Village development which includes the project site for the Kapolei Middle School. Also, the Kapolei Golf Course which borders the site to the northeast already acts as a drainage retention/detention/perculation system. The Kapolei Middle School's east border is adjacent to an excellent deep drainage retention channel at the east and south borders of the site running towards the Barbers Point coral pit. Drainage inlets run along the Kapolei Parkway and under the six-foot wide sidewalks which border the Middle School site to the north.

The Villages of Kapolei lies within two watersheds (see Hydrology Map, Figure 8). Watershed "A" contains no defined waterways, allowing storm runoff to sheetflow and perculate over cane field land. This percolator system also has watershed "B" which includes two small intermittent streams, Makalapa and Makakilo Gulches, comprising the only two waterways transversing the project site area. Makakilo Gulch enters the site area with a runoff flow rate of approximately 3,050 cubic feet per second. Makalapa Gulch has a comparable runoff flow rate of 2,000 cfs. Total cumulative runoff flow rate at the southern boundary are estimated at 6,900 cfs.

Disposal of storm runoff from the eastern portion of the Middle School project site is accomplished primarily through surcharging of the coral pit located just within the northern boundary of NASBP. A culvert structure at the southern boundary of the project site limits flows into the pit to 1,600 cfs. The drainage channel and the improvements, including the six six-foot in diameter pipes at the north boundary of NASBP and the southwest corner of the Middle School site, has greatly improved run off flows. It should be noted that any grading that might affect drainage will be in conformance with the City and County of Honolulu Grading Ordinance and also in



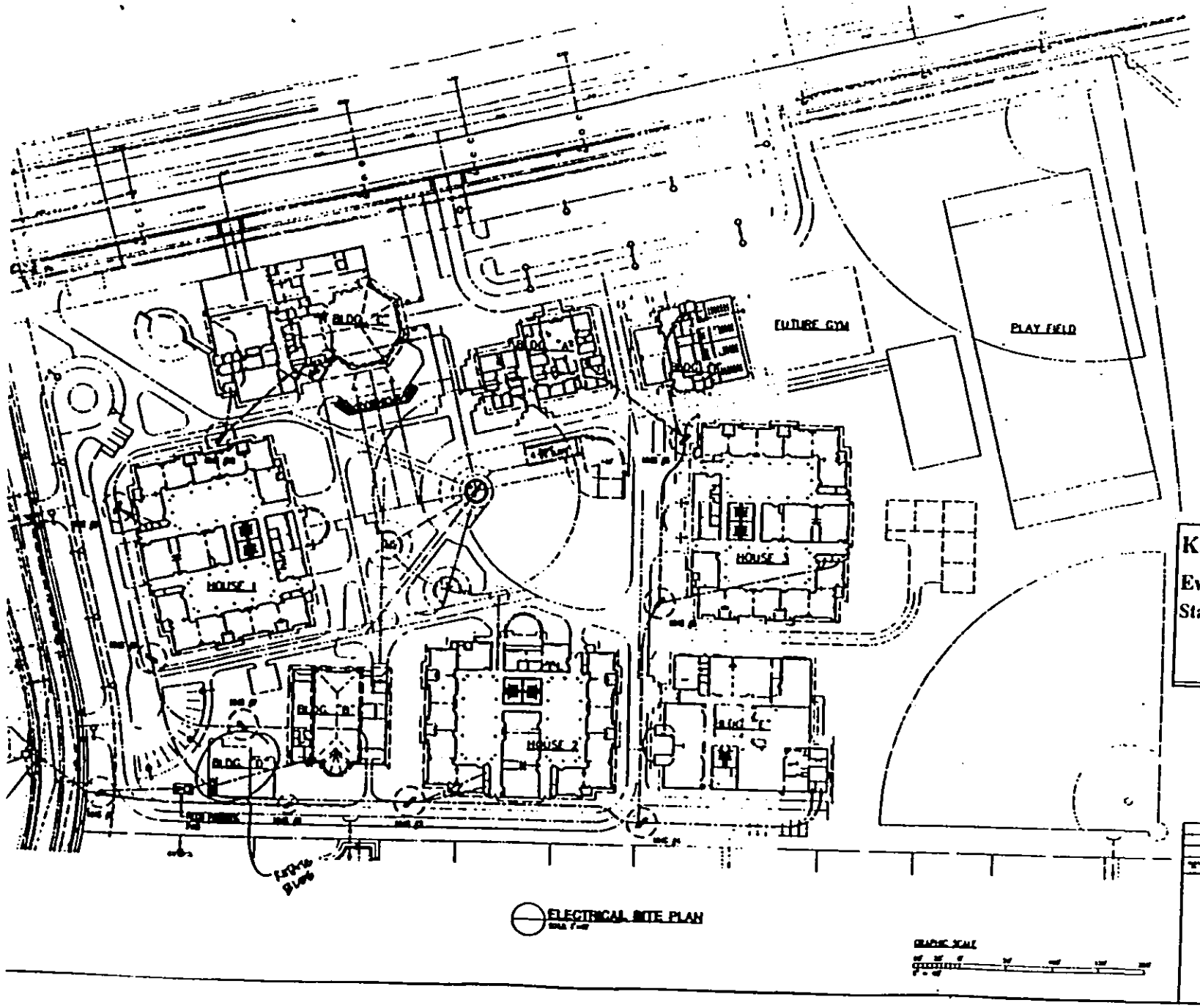

Kapolei Middle School

**POWER**

Ewa, Oahu, Hawaii

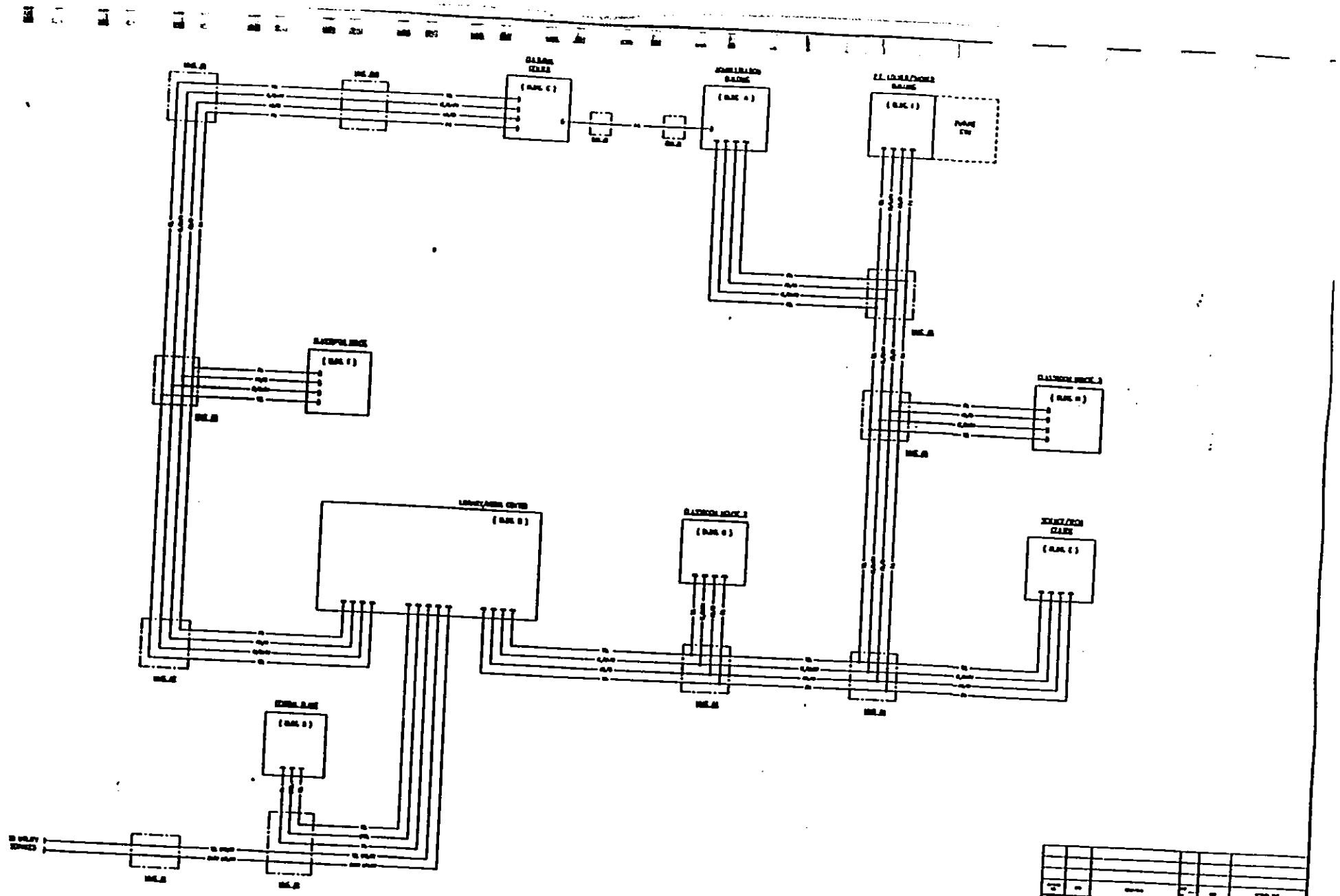
0' 1000'

Figure 9




**Kapolei Middle School Project**
**Ewa, Oahu**
**State of Hawaii**

**Figure 10**



MEDIA/SIGNAL DISTRIBUTION SYSTEM DIAGRAM

**Kapolei Middle School Project**
**Ewa, Oahu**
**State of Hawaii**

**Figure10A**

accordance with the Federal National Pollutant Discharge Elimination System (NPDES) requirements, and the recommendations of the geotechnical engineer.

5. **Electric Power and Telephone Service**

Off-site power and communication requirements include a telephone switching station to serve the proposed Kapolei Town Center and the project site, and an electrical substation when existing power capacities are exceeded. Proposed on-site power and communications improvements consist of electrical and telephone conduits provided along the major roadways. The system also includes street lights and hand holes. Electrical, telephone, and cable systems are underground within the development and adjacent to the project site along Kama'aha Avenue. Presently, street lights run along Kapolei Parkway which front the entire northern border of the Middle School site. (See Figures 9, 10, and 10A.) Also, the middle school is planned to include a telecommunications system which includes the development of conduit and raceway infrastructure and cabling systems.

## *III. POTENTIAL IMPACTS AND MITIGATION MEASURES*

### A. PHYSICAL ENVIRONMENT

#### 1. Surrounding Uses

The proposed project is compatible with the surrounding residential neighborhood and proposed park. The Middle School facility as well as the play courts and ballfields is intended for the use of the Kapolei area residents. The proposed uses are also compatible with park and single-family residential uses adjacent to and across Kapolei Parkway.

**Impacts -** There are no negative impacts anticipated with regard to surrounding uses.

**Mitigation** - No mitigation measures are proposed.

2. **Flora and Fauna**

There are no known significant habitats or rare, endangered or threatened species of flora and fauna located within the project site. The proposed project is therefore not considered an adverse impact upon these environmental features. There are also no wetland indicator plants on the project site.

**Impacts** - There are no impacts associated with the project with regard to flora and fauna.

**Mitigation** - No mitigation measures are proposed.

3. **Archaeological Resources**

The project site has been subject to previous ground disturbing activities from agricultural use and construction of the Villages of Kapolei development. There are no surface or sub-surface archaeological materials present on the project site or evidenced by existing studies of the site.

**Impacts** - There are no known impacts with regard to archeological resources.

**Mitigation** - No mitigation measures are proposed.

4. **Air Quality**

Air quality impacts attributed to the project will include dust generated by short-term, construction-related activities.

Site work such as filling and grading and utilities and parking lot construction, for example, will generate airborne particulates. Dust control measures such as regular watering and sprinkling will be implemented as needed to minimize wind-blown emissions. At least one water sprinkling truck will be kept on-site during working hours during the construction phase of the project and all other dust prevention measures such as protective temporary dust screens around construction area, will be utilized in accordance with Department of Health (DOH) regulation.

The project will not generate a significant volume of additional traffic since most of the students are anticipated to come from families residing at the Villages of Kapolei and nearby developments. Moreover, the traffic pattern at the site includes direct access via the four-lane Kama'aha Avenue and along the six-lane Kapolei Parkway which ends at the northwest end of the site. In the short-term only traffic going to and from the school will be affected in this area. Project-related emissions are not expected to adversely impact local and regional ambient air quality conditions. It should also be noted that the prevailing winds from the northeast will carry dust and emissions away from existing residential areas more than 95% of the time.

**Impacts -** Fugitive dust during construction.

**Mitigation -** A dust prevention plan will be provided by contractor in accordance with Department of Health (DOH) Standards and Rules.

5. **Noise**

As with air quality, ambient noise conditions will be impacted by construction activities. Heavy construction equipment would be the dominant source of noise during the site construction period. To aid in the mitigation of construction noise impacts upon surrounding uses, construction activities will be conducted during the daylight hours only. The use of the property for a Middle School facility is compatible with surrounding uses. The facilities are primarily intended for use by Villages of Kapolei residents and residents of nearby developments and will be controlled by the Department of Education (DOE) program director. The nearest school structure is more than 250 feet away from the closest current residence outside of the school campus which is buffered by a ballfield to the east and is adjacent to a proposed park to the west. The project is not anticipated to generate adverse noise conditions.

**Impacts -** Noise from construction activities.

**Mitigation -** Dust prevention measures noted above, such as the temporary dust screens around the site will also alleviate noise impacts. In addition, construction activities and hours will be in accordance with the 11.46 Rules of Department of Health (DOH) regulating noise impacts.

6. **Visual Resources**

The project will be fully landscaped to create a site visually and aesthetically integrated with the Villages of

Kapolei, the park, and other surrounding developed properties. The tallest structure is proposed to be approximately 32 feet in height which is comparable to the existing two-story townhouse structures which are located within the development. Inspired by an Ewa plantation residential style, the school buildings will have simple roof forms, deep overhangs and articulated windows.

**Impacts -** Impacts will be positive.

**Mitigation -** No mitigation measures are proposed.

## B. IMPACT TO COMMUNITY SETTING

### 1. Population and Local Economy

On the short-term basis, the project will support construction and construction-related employment. Over the long-term, the project will provide limited support to the service sector for project operations and maintenance. Direct on-site employment generated by the project will total 75 new jobs and will likely include approximately 47 school teachers and counselors, 4 maintenance workers, 3 security, 12 health, recreation, cafeteria and other service staff and 9 administrative staff including a principal and 3 vice principals. (Source: Nick Nichols, DOE, June 1997)

**Impacts -** Short-and long-term employment opportunities are a beneficial impact to the Kapolei area.

**Mitigation -** No mitigation is proposed.

## 2. Agriculture

The 20-acre project site is currently not in agricultural use. The proposed development will not affect agricultural endeavors on the island.

**Impacts** - No adverse agricultural impacts are anticipated.

**Mitigation** - No mitigation is proposed.

## 3. Police, Fire and Medical Services

Police, fire and medical services are not expected to be adversely impacted by the proposed project. The project will not extend existing service area limits for emergency services.

**Impact** - There are no negative impacts with regard to police, fire and medical services.

**Mitigation** - No mitigation measures are proposed.

## 4. Solid Waste

A solid waste management plan will be developed in coordination with the Solid Waste Division of the County Department of Public Works and Waste Management for any disposal of clearing and grubbing material from the site during construction.

Once completed, the proposed project will be served by the City and County of Honolulu for refuse collection. Solid waste generated from the project will be disposed at

the H-POWER facility. To accommodate future disposal requirements, the City plans to stress recycling efforts followed by physical expansion of existing facilities such as H-POWER. Solid waste generated by the project is not expected to cause any adverse impacts.

**Impacts -** The City and County Department of Wastewater Management (DPW) estimate is based on approximately four pounds/person/day. The school campus with a projected 1200 students and 75 teachers, staff, etc. would generate about two tons/day. Production of this quantity of solid waste will impact the existing county disposal facilities.

**Mitigation -** The Kapolei Middle School Project will endeavor to promote recycling as its primary realistic means of mitigating this impact. However, the City and County of Honolulu through creation of its Resource Recovery facility (HPOWER) has already issued a program to recover energy, as well as decrease the amount of solid waste which must be ultimately disposed of in landfills.

## C. IMPACTS TO INFRASTRUCTURE

### 1. Roadways

Access to the subject property would be through the six-lane Kapolei Parkway and the four-lane Kama'aha Avenue and other intersecting streets in Kapolei town and the Villages of Kapolei. The driveway will comply with applicable County sight distance provisions. Presently, Kapolei Parkway is a dead-end roadway at the northeast end of project site. However, a U-turn-around area has

been provided for motorists even when the school is closed in the area bordering the drainage channel. The turn-around area will be open for use until the time of completion of the bridge and Kapolei Parkway/South Road intersection (approximately 1/2 mile west). There are also short-term (1998) plans for a bridge over the drainage channel and long-term plans for the Kapolei Parkway to extend to the Ewa Gentry development.

Based on the project need, it is anticipated that most of the students enrolled in the Middle School facility would be from the Villages of Kapolei and nearby developments. Thus, some of the pick-ups and drop-offs of the students would occur by walking to and from the facility, rather than by automobile. Other students would be attending the school by vans and buses which will pick up and deliver groups of students. (One (1) van holds approximately twenty (20) students.) Vehicular trips are anticipated during the morning peak hour and early afternoon vehicular trips anticipated during the early afternoon peak hour. However, as noted in the III.A.4 Air Quality Section above, most of the school traffic will not interfere with traffic outside the Kapolei Villages complex and will have minimal effect on traffic within the complex because the school fronts the six-lane Kapolei Parkway which runs along its northern border and presently ends at the northwest end of the school site. Therefore in the short-term, only school bound traffic should be involved in and out of the project site area. Even in the long-term, when the Kapolei Parkway and Kama'aha Avenue is extended, a recent Traffic Study concluded that

conditions at the intersections will not be impacted. This 1996 Study also provides recommendations to accommodate and improve traffic flow in the project area. (See Appendix E, Traffic Study.)

**Impacts -** The development of the Kapolei Middle School will produce some traffic impact on local collector and regional systems. Specific traffic impacts are through traffic generation projections and are included in Villages of Kapolei, Update of Traffic Impacts (April 1996) by Julian Ng, Inc.

**Mitigation -** The developer is committed to follow recommendations made in the 1996 Traffic Study by Julian Ng, Inc. and comply with those recommendations made in the Ewa Region Highway Transportation Master Plan.

**2. Water**

Based on the proposed number of fixtures within the project, and design flow was estimated at 215 gallons per minute (GPM) by Thermal Engineering Corp. in March 1997. Landscape irrigation flow will be 25 GPM. Based on the design enrollment of students only, the water demand was calculated to be 105 GPM by R. M. Towill Engineers in May 1997. The total flow is estimated at 220-240 GPM which is within the Board of Water Supply flow requirements. The water system will be designed in conformance with City and County of Honolulu Water System Standards and Standard Details and Department of Education maintenance personnel recommendations. Potable water supply will be off of Kama'aha Avenue via one master meter. Fire

hydrants will be installed on-site in conformance with City and County of Honolulu Fire Department and State of Hawaii Standards. Non-potable transmission lines will be available off of Kama'aha Avenue. However, non-potable water allocation is not secured at this time. Provisions may be required for the use of reclaimed water for irrigation. The *project is not anticipated to have a significant impact upon* the water source, storage and transmission system.

**Impact -** The Kapolei Middle School will generate a maximum of 240 GPM. While this is well within the Board of Water Supply flow requirements, there is presently no existing allocations of water for the future project demand.

**Mitigation -** Developer will have to secure all necessary approvals for appropriate potable and non-potable water allocation from the State Commission on Water Resource Management.

**3. <u>Wastewater</u>**

The sewer system will be designed in conformance with City and County of Honolulu Sewer Standards and Standard Details and Department of Education maintenance personnel recommendations. Sewage from the school will be directed to Kama'aha Avenue in accordance with the Villages of Kapolei Sewer Master Plan. Development of the proposed project is not expected to cause any adverse effects due to wastewater.

**Impact -** Project will increase sewage flow, but can be accommodated by existing system.

**Mitigation** - Connections will be in conformance with City and County (C&C) of Honolulu Sewer Standards.

4. **Drainage**

Storm runoff from the project site would be routed to the existing drainage channel which runs along the eastern border of the site. The drainage channel includes six six-foot diameter culvert pipes at the southwestern end of the site and channels runoff toward the coral pit bordering Barbers Point. The internal drainage system will be designed to comply with the C&C of Honolulu Drainage Standards and Standard Details and Department of Education maintenance personnel recommendations.

**Impact** - Development of the proposed project is not expected to cause any adverse effects to adjacent or downstream properties.

**Mitigation** - Swales will be used wherever possible with a minimum slope of 1%. Building finished floors will be higher than the surrounding grades and runoff will be directed away from the buildings.

5. **Electrical and Telephone Systems**

Electrical power requirements associated with the proposed project will be supplied by Hawaiian Electric Company's (HECO) facilities adjacent to the school site along Kama'aha Avenue. Telephone system requirements generated by the project will be met by GTE Hawaiian Tel facilities along Kama'aha Avenue. (See Power Map, Figure

9; Electrical Site Plan Map, Figure 10; and Distribution System Diagram, Figure 10A.)

**Impacts -** The project will provide additional requirements for facilities, as specifically provided by GTE Hawaiian Tel and the Hawaiian Electric Co. Through the consultation process, those companies have identified that they foresee no problems in providing service and no impacts are anticipated.

**Mitigation** - No mitigation measures are proposed.

## *IV. RELATIONSHIP TO GOVERNMENTAL PLANS, POLICIES, AND CONTROLS*

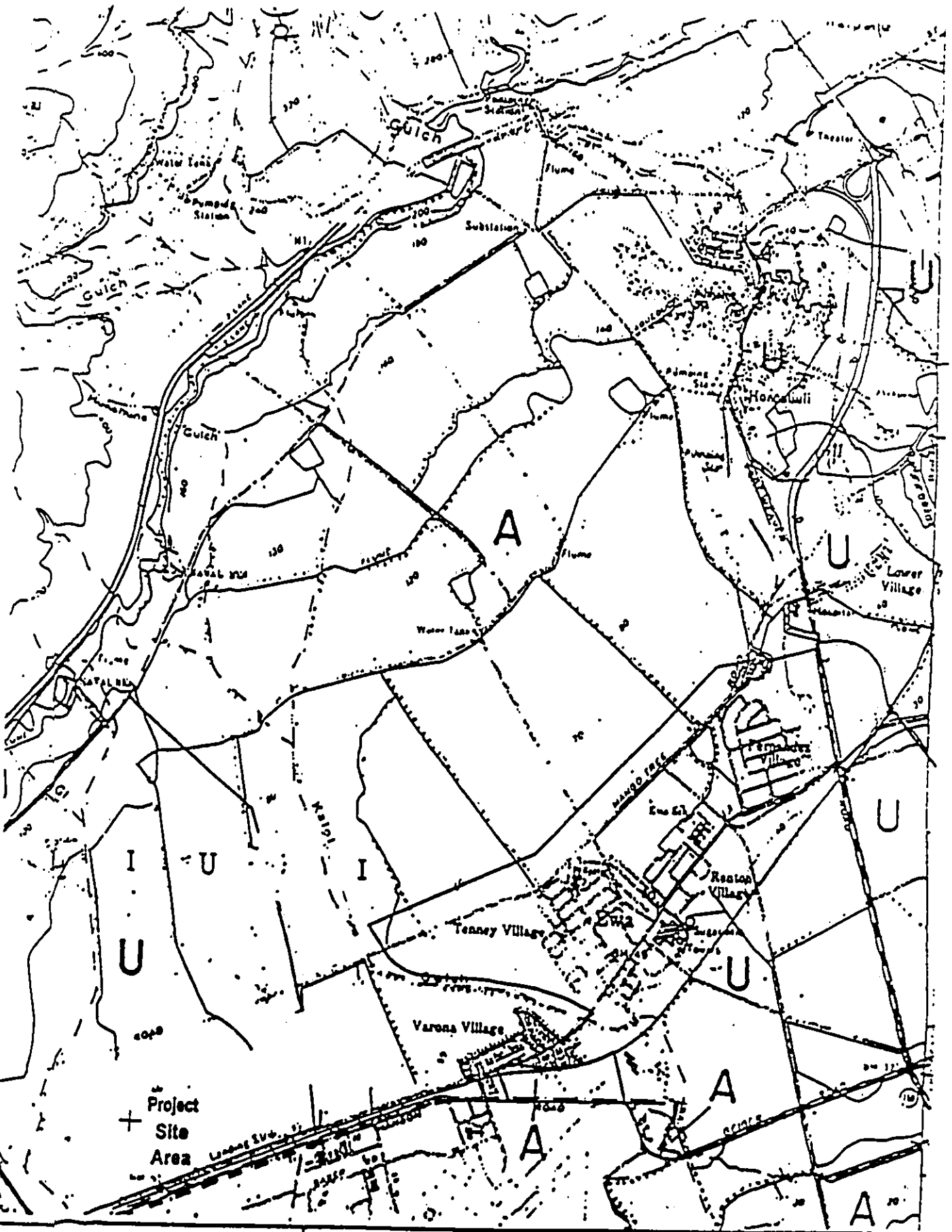
### A. STATE LAND USE LAW

Chapter 205, Hawaii Revised Statutes, relating to the Land Use Commission, established the four (4) major land use districts in which all lands in the State are placed. These districts are designated "Urban","Rural", "Agricultural", and "Conservation". The subject parcel is within the "Urban" district. (See State Land Use Map, Figure 11). The proposed action involves the construction of a Middle School use which is compatible with the "Urban"designation.

### B. THE HAWAII STATE PLAN

The proposed project is generally consistent with objectives and policies of the Hawaii State Plan. Chapter 226, Hawaii Revised Statutes (HRS), including Objectives and Policies for Socio-Cultural Advancement-Education.

Policies and Priority Guidelines relevant to the Kapolei Middle School project are found in The Hawaii State Plan: Education Functional Plan of 1989.




Kapolei Middle School Project
Ewa, Oahu
State of Hawaii

Figure 11

Districts

U = Urban
R = Rural
A = Agricultural
C = Conservation

STATE LAND USE MAP

| *Policies and Priority Guidelines* | | *Corresponding Board of Education Goals* |
|---|---|---|
| A. | Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs. 226-21 (b) (2) | Provide facilities that are sufficient in number, functional, well-placed and compatible with the physical surroundings. D-1-2<br><br>Provide a series of activities to stimulate improvements to the organization and gain community support for the organization's goals, activities and accomplishments. E-1 |
| B. | Increase and improve the use of information technology in education and encourage programs which increase the public's awareness and understanding of the impact of information technologies on our lives. 226-107 (5) | Develop a plan to pinpoint, analyze and use, technology to improve classroom instruction. C-1-2<br><br>Redouble efforts to upgrade and expand the automated support systems for public schools. D-1-5 |

The Kapolei Village master plan which includes the Middle School site provides for educational facilities of all levels. Within the plan are two elementary schools, one intermediate middle school, and one high school, as well as day care centers for small children. Close cooperation with the Department of Education will be maintained to assure adequate provision of educational services.

## C. CITY AND COUNTY OF HONOLULU GENERAL PLAN

The Kapolei Middle School project is compatible with the 1992 General Plan for the City and County of Honolulu which recognizes Ewa and Central Oahu, as the most obvious urban expansion areas on Oahu. The implementation policies for the Plan's guiding objective, to establish a harmonious population distribution pattern on Oahu, address primarily the Ewa and Central Oahu regions.

Policy 1: Facilitate the full development of the Primary Urban Center.

Policy 2: Encourage development within the secondary urban center at Kapolei and

the Ewa and Central Oahu urban-fringe areas to relieve developmental pressures in the remaining urban-fringe and rural areas and to meet housing needs not readily provided in the Primary Urban Center.

Policy 4: Encourage the construction of school facilities that are designed for flexibility and high level use.

Policy 5: Facilitate the appropriate location of learning institutions from preschool through university levels.

The Kapolei Middle School is also supported by the First Biennial Report: On the Condition of the City and County General Plan and Development Plans (June 1995), which predicted that with public school enrollment on Oahu projected to rise 10,000 in the next seven years (i.e. 1996-2003), an eventual need for at least 11 new schools is anticipated in the high-growth areas of Ewa and Central Oahu.

The 1992 Oahu General Plan's goal for the population distribution on the island in the year 2010 is the following:

| | | | |
|---|---|---|---|
| Primary Urban Center | 450,800 - 497,800 | | 45.1 - 49.8 % of pop. |
| Ewa | 119,800 - 132,900 | | 12.0 - 13.3 % of pop. |
| Central Oahu | 148,900 - 164,900 | | 14.9 - 16.5 % of pop. |
| | | total | 72.0 - 79.6 % of pop. |

According to these figures, the Primary Urban Center's share of the total Oahu population would decline from its present 51 percent to the projected 45 to 49 percent in 2010. Ewa's share of the total Oahu population would increase from its present 5 percent to the projected 12 to 13 percent in 2010.

Overall, the State of Hawaii supports the city's policy with the argument that the Ewa plain is a logical location for a secondary urban center based on the qualities of proximity to urban Honolulu, major employment bases in the surrounding area, and

subterranean cap rock which prevents pure groundwater supplies from becoming contaminated. In the long run, it is argued, Ewa's large areas of marginal agricultural lands to the west and in the makai direction will provide additional suitable lands for urbanization. The State also supports directing growth to Ewa and Central Oahu. (State Land Use District Boundary Review Report: Oahu, March 1992)

To this end, and for planned land use purposes the City and County of Honolulu has designated and projected the project site area and the surrounding area for Urban Use which is compatible with school use. However, the specified 20 acres site of the Kapolei Middle School is still zoned AG-1 (Agriculture) as noted in the next section.

**D. COUNTY ZONING**

The City has zoned the site AG-1. A school is compatible with and can exist over agricultural zoning but may require a Planned Review Use (PRU). It should also be noted that zoning applications which are less than 25 acres, as is the case with the Kapolei Middle School site, and do not require a significant zone change will be reviewed by the Planning Department for consistency with the General Plan, the Ewa Development Plan and any applicable Special Area Plan provisions as part of the Zone Change application review. Moreover, the site has been zoned R3.5 Residential and A-1 Low Density Apartment under Act 15 as explained in the next section.

The 1992 City and County of Honolulu General Plans Objective B, to provide a wide range of educational opportunities for the people of Oahu, is compatible with and supports the development of the Kapolei Middle School in the Ewa Region.

Policy 4: Encourage the construction of school facilities that are designed for flexibility and high level use.

Policy 5: Facilitate the appropriate location of learning institutions from preschool through university levels.

## E. ACT 15 ZONING

The site has been zoned R3.5 residential and A-1 Low Density Apartment under Act 15, Session Laws of Hawaii 1988. Act 15 relates to expediting of housing developments and certain related uses. While Act 15 is not part of the City and County's zoning mechanism, it has the force of law. Most importantly, a school can exist over such zoning.

## F. EWA DEVELOPMENT PLAN

The 1996 City and County of Honolulu Ewa Development Plan outlines the Planning Principles (Section 4.7.2) most relevant to school development in the Ewa area.

The following principles should be followed in planning and operating schools in Ewa:

***Schools as Community Centers.*** Because of the difficult financial problems for all sectors, new communities are likely to have fewer churches, private social halls and recreation facilities. As a result, schools may have to assume important functions as cultural and recreational centers and as meeting facilities. The State DOE should design school facilities to facilitate community use during non-school hours and weekends.

***Co-location with Parks.*** Elementary and intermediate schools should be co-located with neighborhood or community parks, and designs of facilities should be coordinated by the State DOE and the Department of Parks and Recreation when needless duplication of parking and of athletic, recreation and meeting facilities can be avoided.

***Shared Facilities.*** The Department of Parks and Recreation should coordinate the development and use of athletic facilities such as swimming pools and

gymnasiums with the DOE where such facilities would maximize use and reduce duplication of function.

***Fair Share Contribution.*** The City will support the State Department of Education's request for fair share contributions from developers of residential projects to insure that adequate school facilities are in place at existing and new schools to meet the needs of residents.

It should be noted that the development of Kapolei Middle School is compatible and in accordance with all of the above Planning Principles of the Ewa Development Plan. For details see In Making of Kapolei Middle School (Design Charette) Final Report (March 1997) by Mitsunaga and Associates.

## G. THE KAPOLEI MASTER PLAN

The revised 1997 Kapolei Master Plan shows the 20-acres project site area designated for the Kapolei Middle School adjacent to a six-acres park to the west (see Figure 4). This is in keeping with the 1990 Kapolei Master Plan which planned for an elementary, intermediate and high school as part of the Villages of Kapolei Development Plan.

## H. COMMUNITY INPUT

State and County guidelines and policy, encourages community input as part of the planning process. To this end the design of the Kapolei Middle School planned and received community input that involved the State, the developer, educators, students and the communities in a collaborative planning process known as a Charette. This process consisted of a series of intense, brainstorming, project design sessions, in which all appropriate groups came together for periods of concentrated time. The process facilitated and accelerated communication and decision-making, and provided the opportunity for significant input by more people than the traditional design process allows. The design charette for Kapolei Middle School was scheduled in three

sessions, and was held over a three-month period, from November 1996 through January 1997. During this time, a Steering Committee translated the ideas and themes, developed by a Task Force, into the physical design of the school. (See Appendix B, Community Input Diagram.)

This unprecedented approach has resulted in a new kind of school design--one that is humanistic as well as future-oriented, infused with local culture as well as advanced technologies. The community input process has continued throughout the planning of the Middle School project. For further details on the design charette process see The Making of Kapolei Middle School (Design Charette) Final Report (March 1997), for Makai Villages Partnership by Mitsunaga and Associates, Inc.

## *V. FINDINGS AND CONCLUSION*

The proposed project will involve earthwork and construction activities. In the short-term, these activities may create temporary nuisances normally associated with construction activities. However, dust control measures, such as regular watering and sprinkling, will be implemented to minimize wind-blown emissions. All construction activities are anticipated to be limited to normal daylight working hours. Impacts generated from construction activities are not considered adverse. From a long-term perspective, the proposed project is not anticipated to result in adverse environmental impacts. There are no known significant habitats or rare, endangered or threatened species of flora or fauna or archaeological sites located on the project site. The proposed project conforms with area-wide improvements. Appropriate erosion control measures are being incorporated during the construction phase to minimize soil loss associated with construction activities. With regard to other infrastructural systems and public services, the proposed project should have no adverse environmental impact.

In light of the foregoing findings, it is concluded that the proposed action will not result in any adverse environmental impacts. Therefore, HFDC anticipates the filing of the Findings of No Significant Impact (FONSI).

## *VI. AGENCIES CONTACTED IN THE PREPARATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT*

The following agencies were contacted during the preparation of the draft Environmental Assessment:

### A. Federal Agencies

1. U.S. Naval Air Station Barbers Point
2. Federal Aviation Administration
   Flight Standards District Office

### B. State Agencies

1. Department of Accounting and General Services
2. Department of Agriculture
3. Department of Business, Economic Development and Tourism
   Office of Planning
4. Department of Education
   Planning Section
5. Department of Education
   Facilities and Support Services Branch
6. Department of Education
   Design Division
7. Department of Health
   Office of Environmental Quality Control
8. Department of Land and Natural Resources
   Land Management Division
9. Department of Land and Natural Resources
   State Historic Preservation Office
10. Department of Transportation
11. Housing Finance and Development Corporation

B. **State Agencies (cont'd)**

12. Land Use Commission

13. Legislative Reference Bureau

14. Commission on Persons with Disabilities

C. **County Agencies**

1. Honolulu Police Department, District 8
   Waianae

2. Honolulu Police Department
   Kapolei Administrative Office

3. Honolulu Fire Department
   Kapolei Fire Station

4. Planning Division

5. Board of Water Supply

6. Building Department

7. Department of Land Utilization

8. Department of Public Works

9. Department of Transportation Services

D. **Other Agencies/Organizations**

1. Campbell Estates
   Agricultural Division

2. St. Francis-West Medical Center,
   Community Relations Division

3. Hawaiian Electric Company (HECO)

4. GTE Hawaiian Tel

5. Oahu Sugar Company

# APPENDIX A
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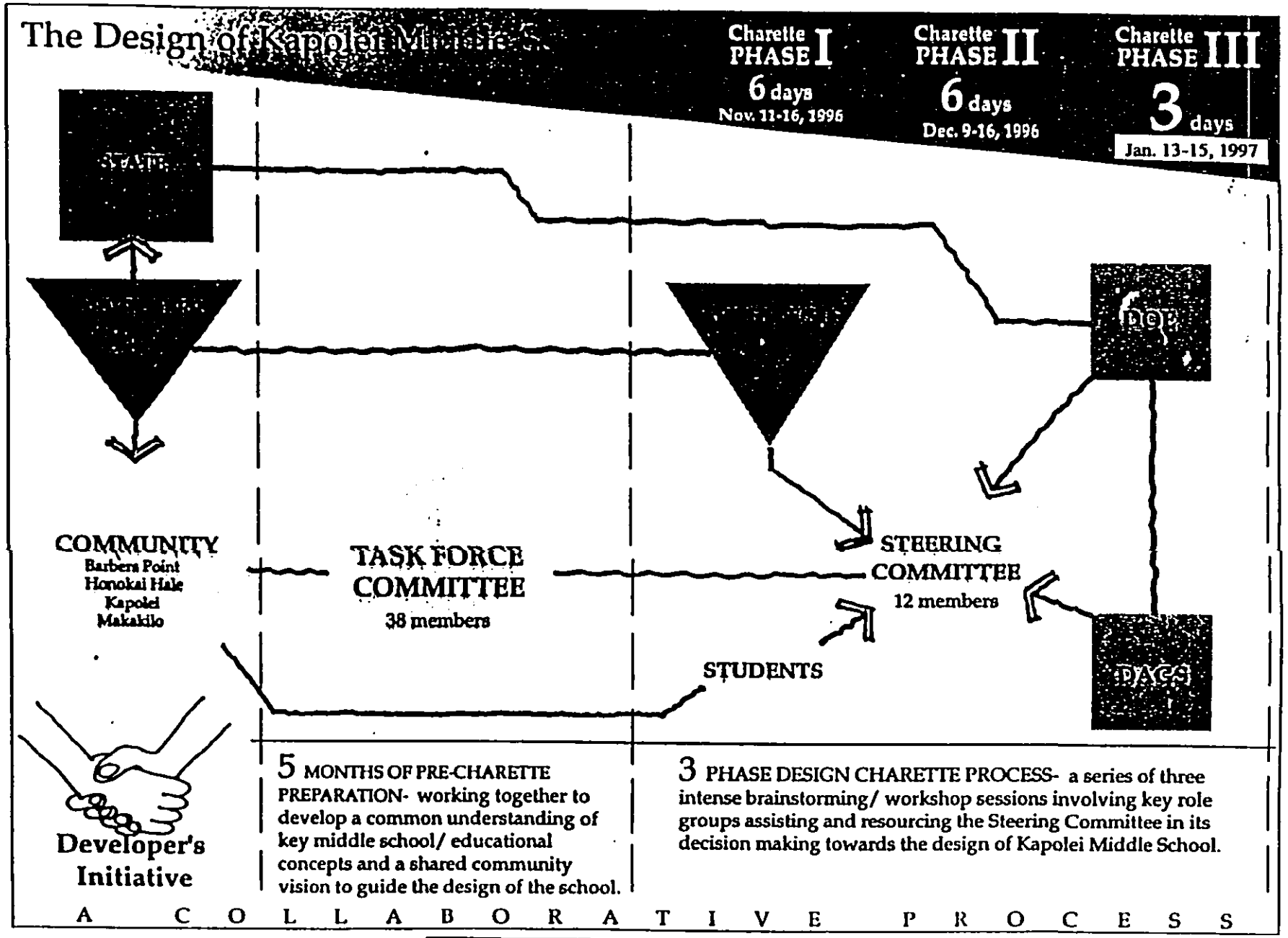
# *APPENDIX B*

## Community Input Diagram

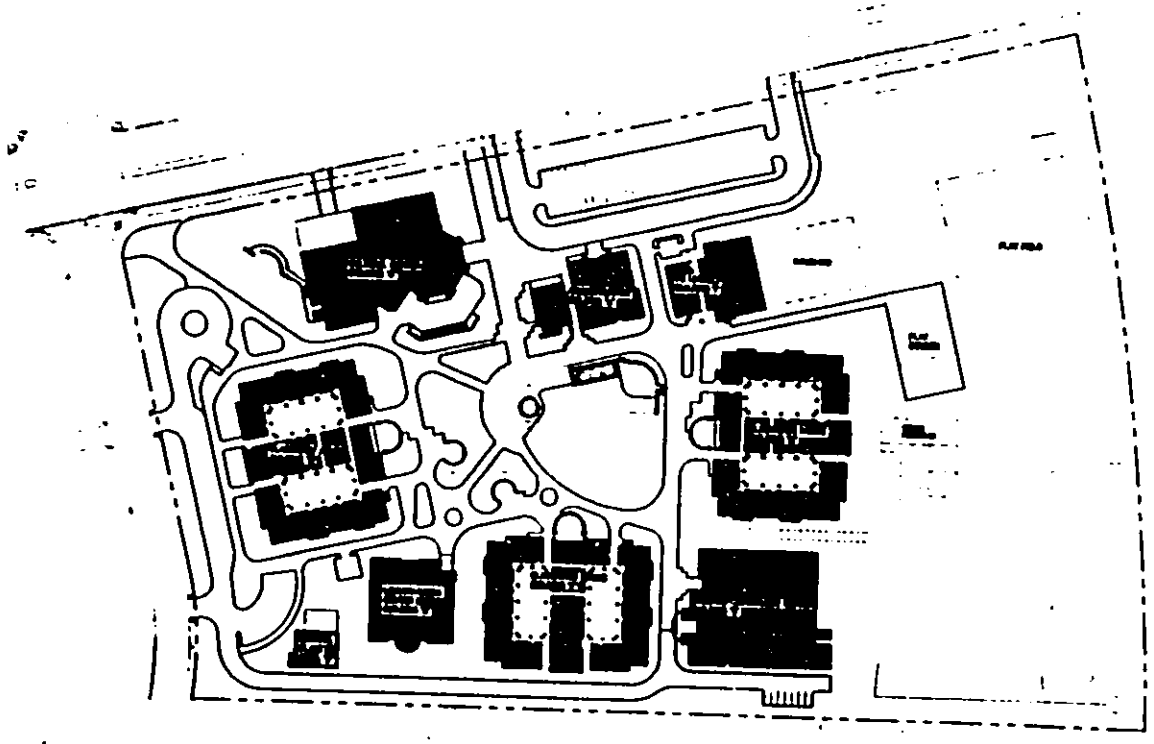



COMMUNITY INPUT DIAGRAM

# APPENDIX C

## Site Plans

DOCUMENT EDGE CUT OFF



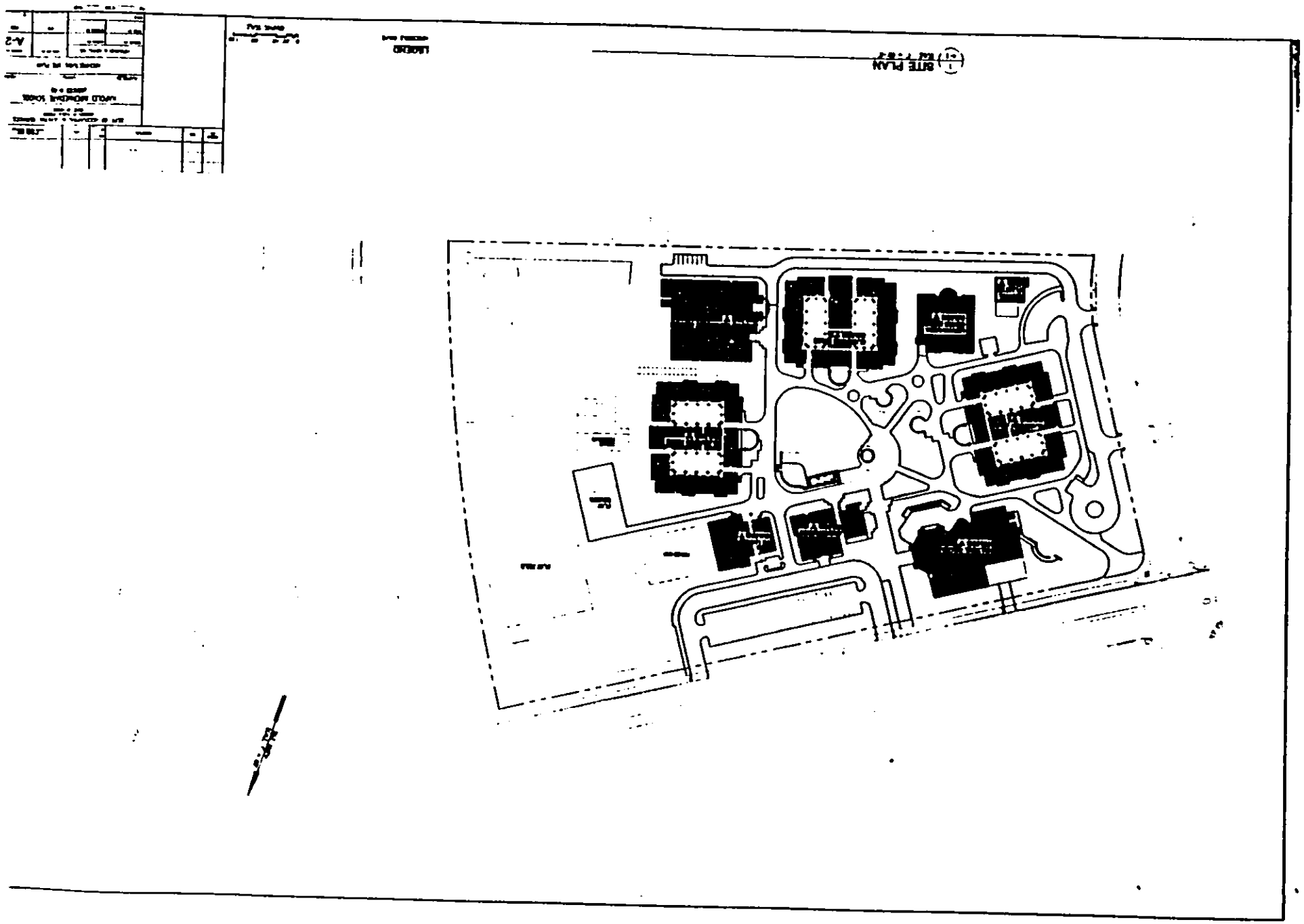
SITE PLAN

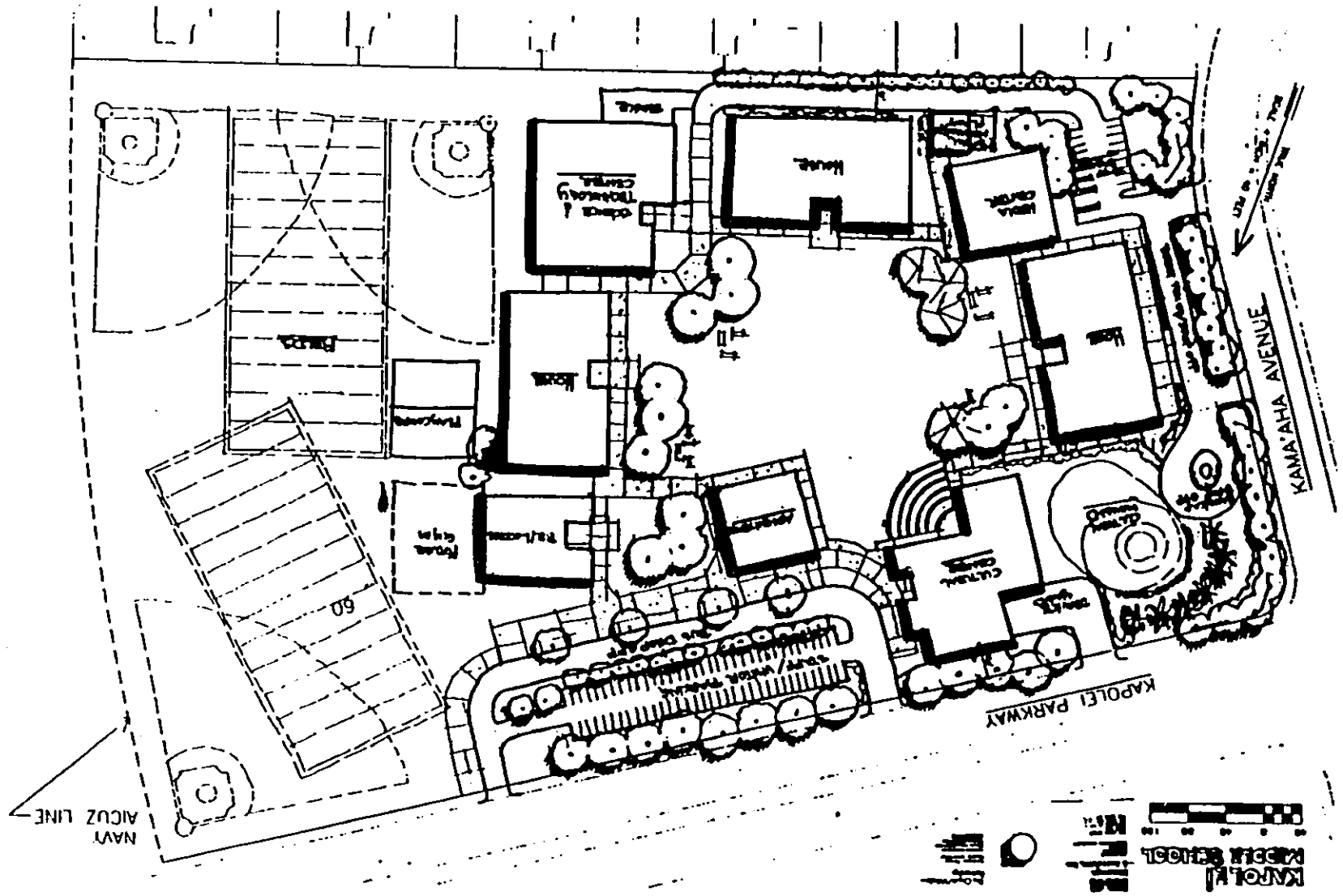
LEGEND

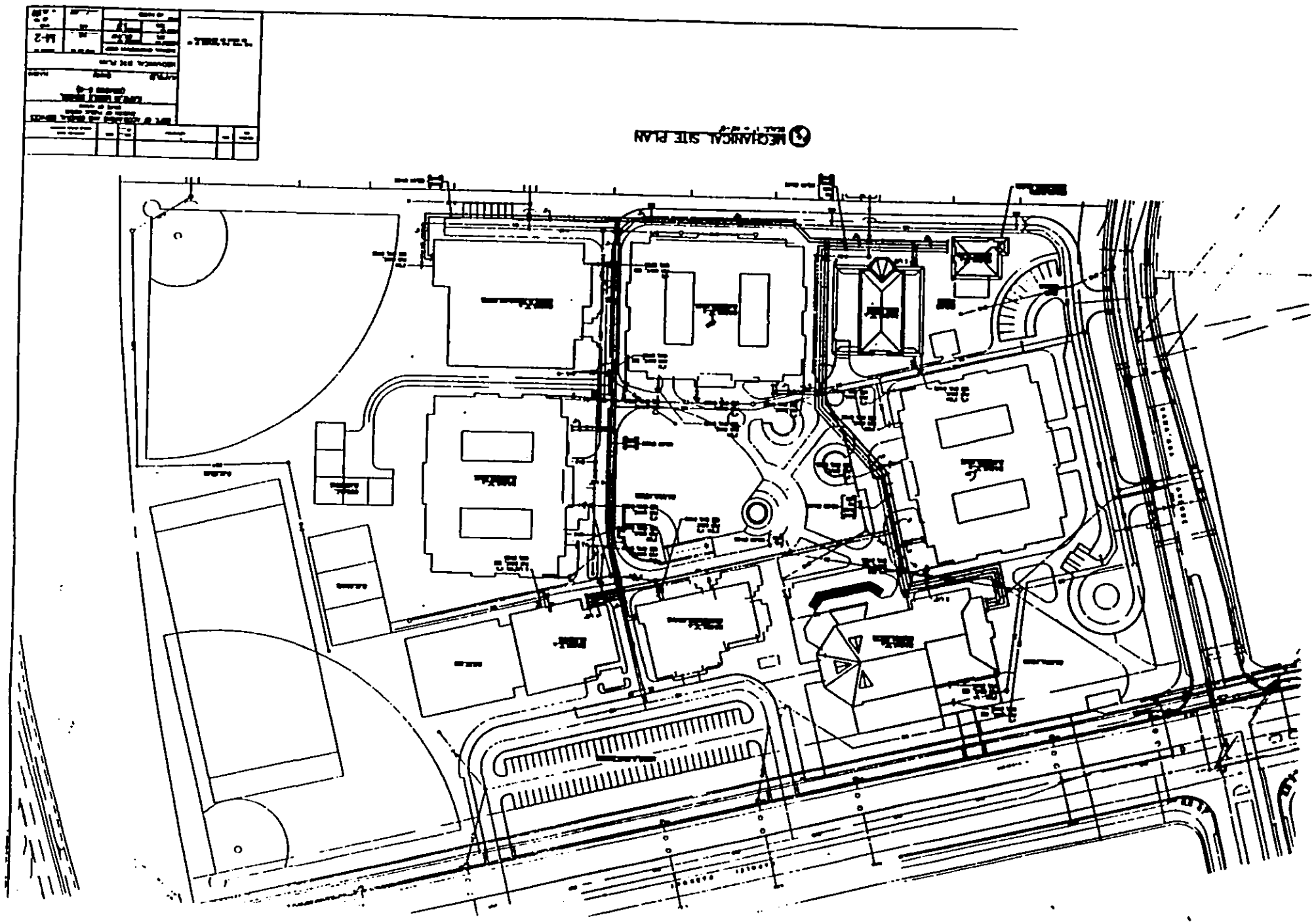
A-2

# CORRECTION

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



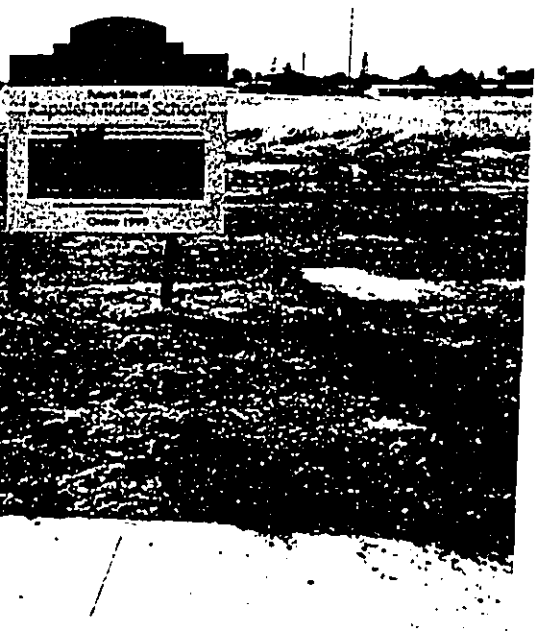




MECHANICAL SITE PLAN

# APPENDIX D

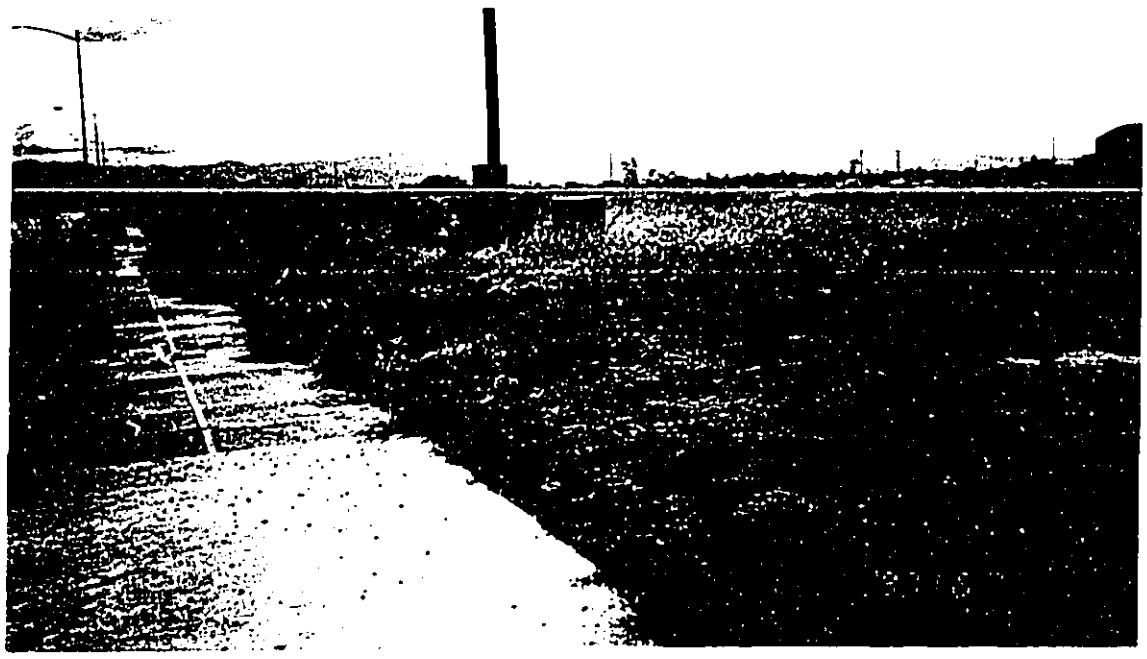
## Photos of Project Site



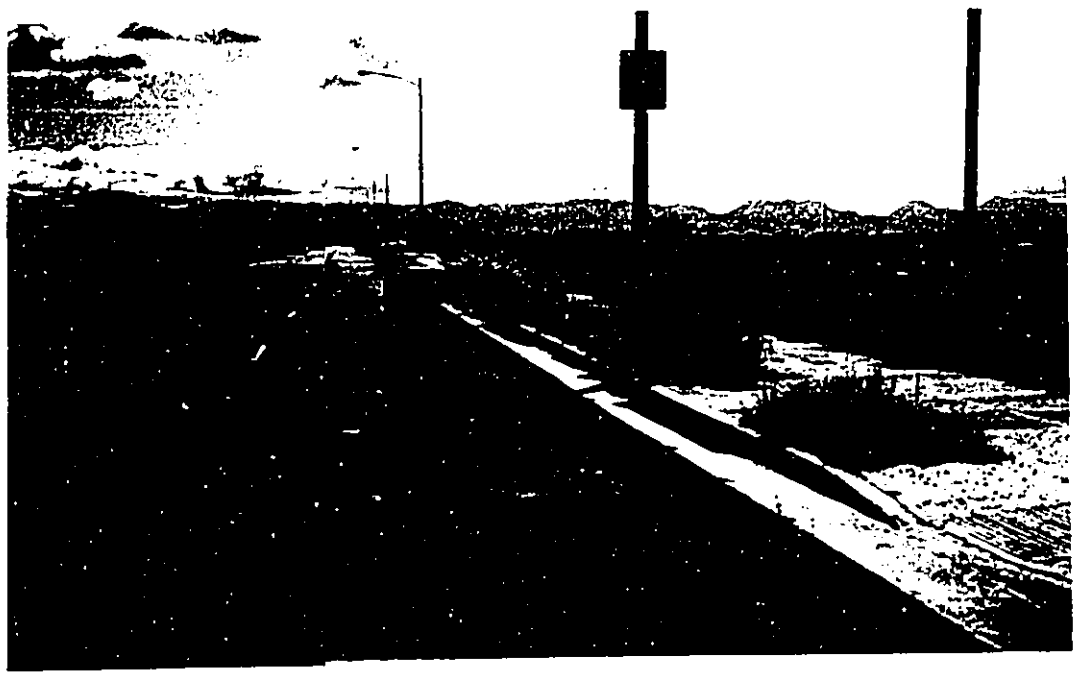

Facing south (makai) from the intersection of Kama'aha Avenue and Kapolei Parkway. Buildings at Barbers Point are visible in the background.

Facing south (makai) from the intersection of Kama'aha Avenue and Kapolei Parkway. Adjacent to and west of the Middle School is the future site of the neighborhood park.

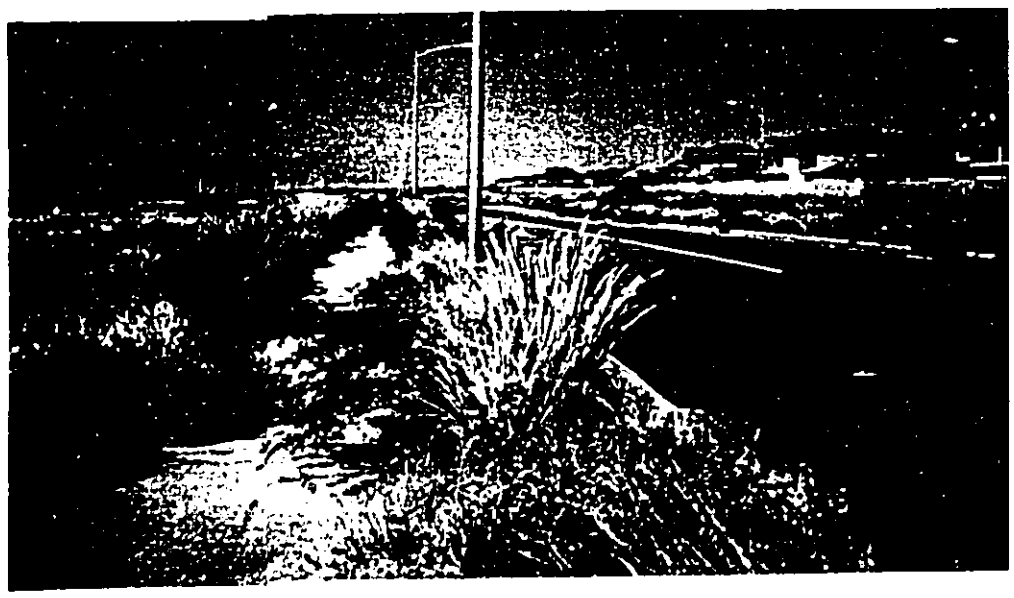
Facing south (makai) at the intersection of the four-laned Kama'aha Avenue which extends across the six-lane Kapolei Parkway. Street signs and roadway markings are in place.



Facing southeast, school site is to the right fronting Kapolei Parkway. Shows street lights and six-feet wide sidewalks.

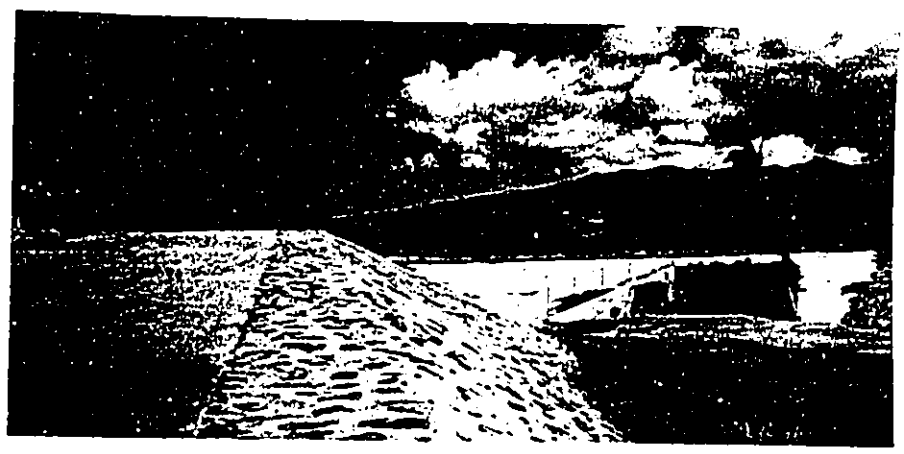


Facing east, shows sewer, drainage, and electrical fixtures. Kekuilani residences are on the left.



Facing west, school site is to the left. Kekuilani to the right.

Facing northwest from southeast corner of school site. Kekuilani is visible along the northern boundary of site. Shows sparse grassy, coral/clay surface.



Facing northeast (mauka) from northeast corner of school site. Shows drainage channel, palms of Kapolei Golf Course to the right and Kekuilani to the left.

Facing southwest (makai) from Kapolei Golf Course side of drainage channel. Shows buildings at Barbers Point south of school site and Kekuilani to the left.

Facing north (mauka) from southeast shows six-foot high drainage pipes and drainage channel along boundary with Barbers Point.

# APPENDIX E

## Traffic Studies by Julian Ng., Inc.

# TRAFFIC ASSESSMENT FOR

# KAPOLEI MIDDLE SCHOOL

# TMK: 9-1-16: 82 & 83

**KAPOLEI, EWA, OAHU, HAWAII**

prepared by:

Julian Ng, Incorporated
P. O. Box 816
Kaneohe, Hawaii 96744

May, 1997

## Table of Contents

**Traffic Assessment**
**Kapolei Middle School**
**Tax Map Key: 9-1-16: 82 & 83**
**Kapolei, Ewa, Oahu**

May, 1997

The proposed Kapolei Middle School will be located within Village 8 of the Villages of Kapolei, southeast of the intersection of Kapolei Parkway and Kamaaha Avenue (see Exhibit 1). The school, which will serve grades 6 through 8, was included in the traffic studies completed earlier for the entire Villages of Kapolei project. This assessment reevaluates the impact of the project based on the plans being prepared for the school.

## Previous Studies

Several traffic studies were done for the Villages of Kapolei project. The latest comprehensive study was completed in 1994[1] after the last major revision to the plan for the Villages. Several minor changes were made in 1996 to land uses and the street system near the Kapolei Parkway and an update[2] of the 1994 study was completed to supplement the findings of the earlier report. Traffic estimates used in both of these traffic studies were based on the trip generation computation shown in the 1994 report for a school of 1,100 students with vehicular access from Kamaaha Avenue.

The earlier reports included the results of planning level analyses from the 1985 *Highway Capacity Manual*[3] which determined the number of lanes needed and peak hour conditions at each signalized intersection. In the planning analyses, volumes of conflicting, or critical, movements at a signalized intersection are determined and summed (in vehicles per lane); a sum of 1,200 vehicles per hour (vph) or less would be "under" capacity, a desirable condition. A sum between 1,201 and 1,400 vph indicates "near" capacity conditions, in which congestion and unstable flow may occur. A sum greater than 1,400 vph would be "over" capacity, an unacceptable condition which should be mitigated with additional lanes or other measures.

---

1 Parsons Brinckerhoff Quade & Douglas, Inc. *Traffic Impact Study, Villages of Kapolei*, July 20, 1994.

2 Julian Ng, Incorporated. *Villages of Kapolei, Update of Traffic Impacts*, April 1996.

3 Transportation Research Board, National Research Council, *Highway Capacity Manual 1985*, Washington, D.C. 1985.

The 1996 update report found that the signalized intersection of Kapolei Parkway and Kamaaha Avenue would operate at desirable under capacity conditions during both the AM Peak Hour and the PM Peak Hour after full development of the Villages of Kapolei. Each approach on Kapolei Parkway would include a separate, single, lane for left turns and three lanes for through traffic, with the far right lane shared by right turns. The Kamaaha Avenue approaches would have single lanes for each movement (left turn, through, and right turn).

## Project Description

The proposed school will operate year-round, with a design capacity of 1,200 students. The proposed school, developed with extensive community input, includes administration buildings, a multi-purpose cafeteria building, a physical education building, a media center, a science and technology center, and three other classroom buildings. Vehicular access will be provided through five driveways, as follows (starting from the southwest corner of the property and proceeding clockwise around the perimeter):

- a one-way entrance from Kamaaha Avenue, serving a loading (student drop-off and pick-up) area for private automobiles and a limited number of staff parking stalls. This driveway also provides access for service and emergency vehicles to the southern part of the site.

- a two-way driveway, primarily for vehicles exiting to Kamaaha Avenue from the student loading area. This driveway also serves as an entrance and exit for a van loading area (to be used by Handivans and other vehicles with special needs).

- a two-way driveway from the eastbound lanes of Kapolei Parkway to the service area behind the cafeteria.

- a one-way entrance from the eastbound lanes of Kapolei Parkway to the main staff parking lot and a bus loading area for students.

- a one-way exit only driveway to the eastbound lanes of Kapolei Parkway from the main staff parking lot and the student bus loading area.

The driveways to Kapolei Parkway would serve only right turns from and to the eastbound lanes of the parkway; no median opening will be provided for left turns. In the near future, before completion of the Kapolei Parkway, vehicles leaving the school will make a U-turn at the temporary terminus and return to the Kamaaha Avenue intersection. After the completion of an extension of the parkway, the exiting traffic would continue eastbound to the next intersection.

**Traffic Estimates**

Traffic due to the proposed school would be larger than previously estimated since the design enrollment (1,200 students) is larger than that used earlier (1,100 students). However, the previous estimates assumed that the project's peak hourly traffic generation would occur at the same time as the peak on the adjacent streets, which is unlikely. The highest traffic in the afternoons will occur after 4:30 PM, while the school traffic is expected to peak in the hour after the end of the school day (before 3:30 PM).

Table 1 shows the traffic generation factors and the traffic estimates, both from the 1994 report and for the current assessment.

Table 1
TRIP GENERATION

| | Trip Generation Factors | | Traffic Generated | |
|---|---|---|---|---|
| Peak Hour: | AM | PM | AM | PM |
| July 1994 Traffic Study (1,100 students) | | | | |
| entering | 0.168 | 0.140 | 185 | 154 |
| exiting | 0.112 | 0.110 | 123 | 121 |
| Revised Traffic Estimate (1,200 students) | | | | |
| entering | 0.168 | 0.020 | 202 | 24 |
| exiting | 0.112 | 0.040 | 134 | 48 |

The upper half of Exhibit 2 shows the traffic estimate for the intersection of Kapolei Parkway and Kamaaha Avenue from the 1996 update report, which was based on the trip generation from the July 1994 traffic study. The traffic on the south leg of the intersection was assumed to include 80% of the traffic generated by the school, with the other 20% having origins or destinations within Villages 7 or 8. The lower half of Exhibit 2 shows traffic estimates for a future condition without the school.

The traffic volumes generated by the school were assigned to the various driveways by estimating the trip purposes. Negligible traffic in and out of the service driveway would occur during the peak hours. The traffic exiting onto Kapolei Parkway was assumed to make a U-turn and return to the Kamaaha Avenue intersection. Actual use will probably be less, as vehicles with destinations east of the Villages of Kapolei will most likely continue in the easterly direction and not return; the estimates, therefore, should be conservative. Exhibit 3 shows the traffic estimates for driveways and the intersection of Kapolei Parkway and Kamaaha Avenue. Table 2 compares the traffic volumes on Kapolei Parkway and on Kamaaha Avenue from the 1996 update report with the latest estimates.

Table 2
COMPARISON OF TRAFFIC ESTIMATES

| | AM Peak Hour | | | PM Peak Hour | | |
|---|---|---|---|---|---|---|
| | previous | current | change | previous | current | change |
| Kapolei Parkway, east of School | | | | | | |
| westbound | 1,392 | 1,415 | +23 | 1,109 | 1,104 | -5 |
| eastbound | 1,058 | 1,076 | +18 | 1,456 | 1,466 | +10 |
| Kamaaha Avenue, south of Kapolei Parkway | | | | | | |
| northbound | 289 | 309 | +20 | 239 | 158 | -81 |
| southbound | 172 | 150 | -22 | 330 | 216 | -114 |
| Kapolei Parkway, west of Kamaaha Avenue | | | | | | |
| westbound | 1,286 | 1,291 | +5 | 623 | 606 | -17 |
| eastbound | 557 | 563 | +6 | 1,201 | 1,158 | -43 |
| Kamaaha Avenue, north of Kapolei Parkway | | | | | | |
| northbound | 496 | 498 | +2 | 917 | 897 | -20 |
| southbound | 774 | 788 | +14 | 777 | 750 | -27 |

As indicated in Table 2, the differences are small and no significant impact to conditions at other intersections in the Villages of Kapolei are expected. Table 3 summarizes the findings of the capacity analyses at the intersection of Kapolei Parkway and Kamaaha Avenue.

Table 3
INTERSECTION CONDITIONS

| | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|
| | Sum of Crit. Movements | Capacity condition | Sum of Crit. Movements | Capacity condition |
| April 1996 Update | 1,116 | under | 1,063 | under |
| Without project | 1,091 | under | 1,021 | under |
| Current traffic estimate | 1,152 | under | 1,037 | under |

Peak hour intersection conditions remain within the desirable under capacity range. A comparison of the left turn volumes in Exhibits 2 and 3 indicate that the length of left turn storage bays recommended in the 1996 update report are still applicable.

The unsignalized intersections formed at the project driveways were evaluated using the procedure described in the *Highway Capacity Manual*[4] for unsignalized intersections. In this procedure, levels of service for movements which must stop or yield to other traffic are determined from average delays calculated by considering conflicting volumes. The levels of service range from "A" (little or no delay) to "F" (very long delays) with Level of Service D considered as the worst acceptable condition. At each driveway, a single lane shared by all permitted exiting movements was assumed. Table 4 summarizes the findings of driveway conditions.

Table 4
DRIVEWAY CONDITIONS

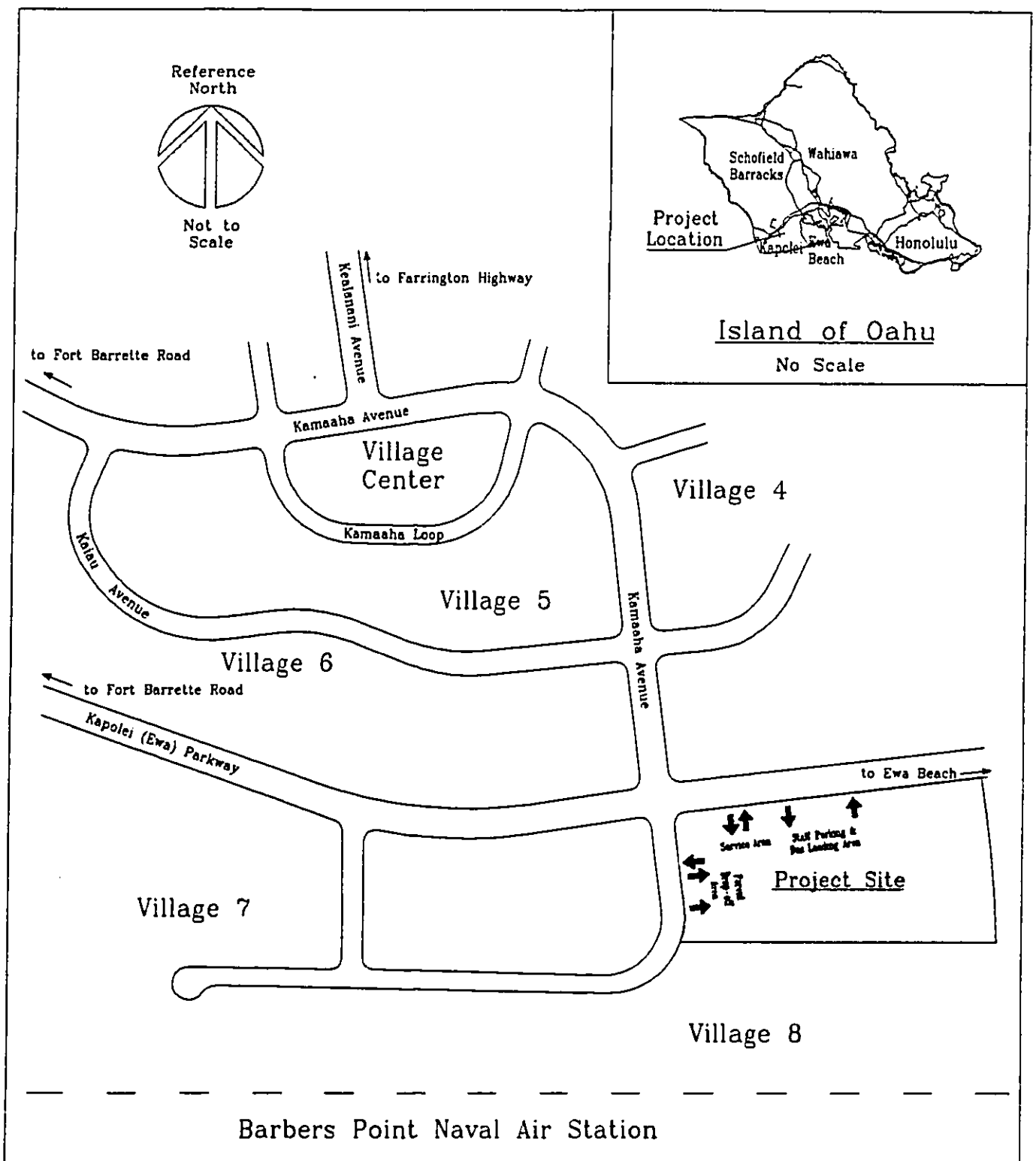
| | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|
| | Average Delay | Level of Service | Average Delay | Level of Service |
| Kamaaha Avenue (entrance only) | | | | |
| southbound left turn | 2.9 sec. | A | 2.4 sec. | A |
| Kamaaha Avenue (across multi-family project) | | | | |
| southbound left turn | 2.6 sec. | A | 2.4 sec. | A |
| driveway exit (westbound) | 4.2 sec. | A | 3.6 sec. | A |
| opposite driveway (eastbound) | 6.0 sec. | B | 5.2 sec. | B |
| northbound left turn | 2.5 sec. | A | 2.7 sec. | A |
| Kapolei Parkway (exit) | | | | |
| northbound right turn | 12.3 sec. | C | 17.0 sec. | C |

**Conclusions**

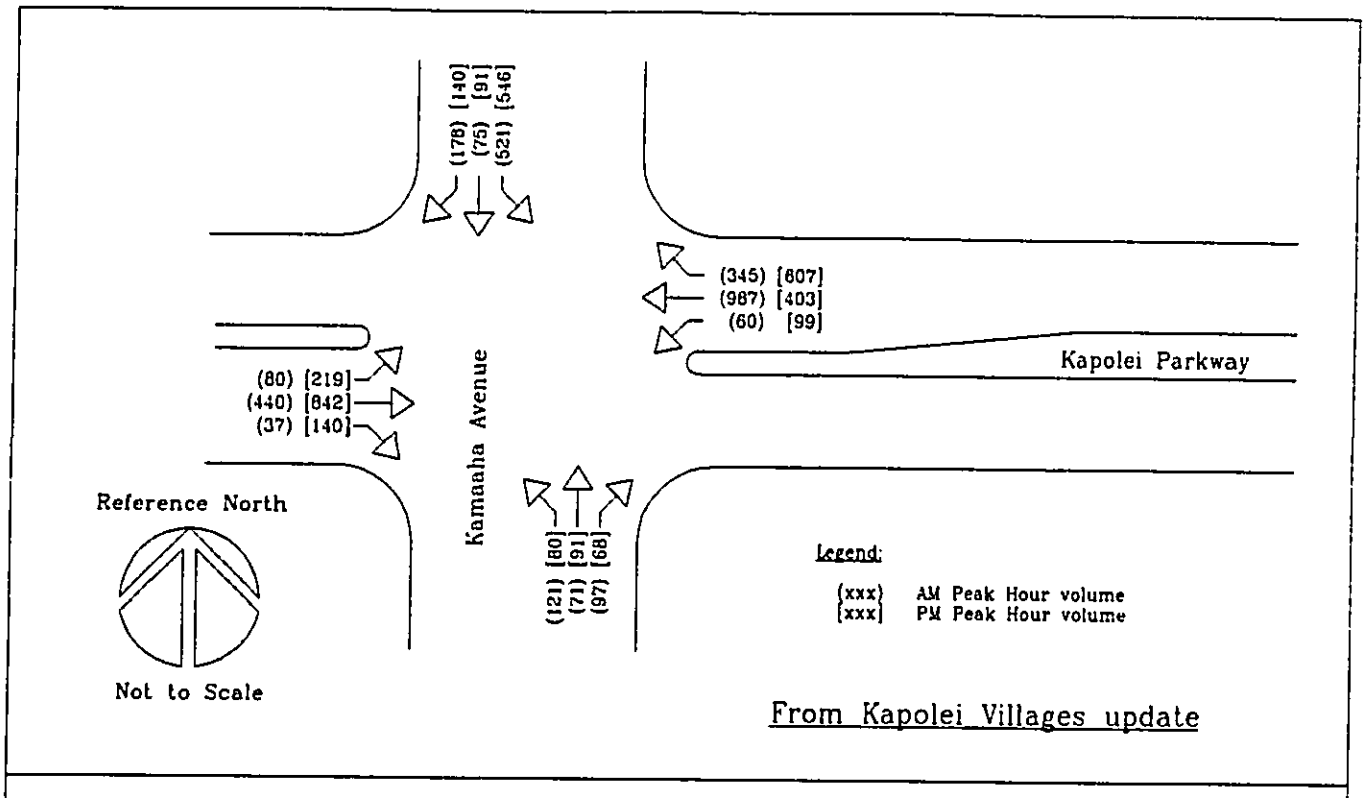
This traffic assessment found that a reevaluation of the traffic generated by the proposed school does not change the future conditions from those found in earlier analyses. The earlier recommendations from intersection improvements still apply. Specific recommendations for access to the project were provided during the plan development stage and the current plans and analyses that were made as part of this assessment reflect these recommendations.

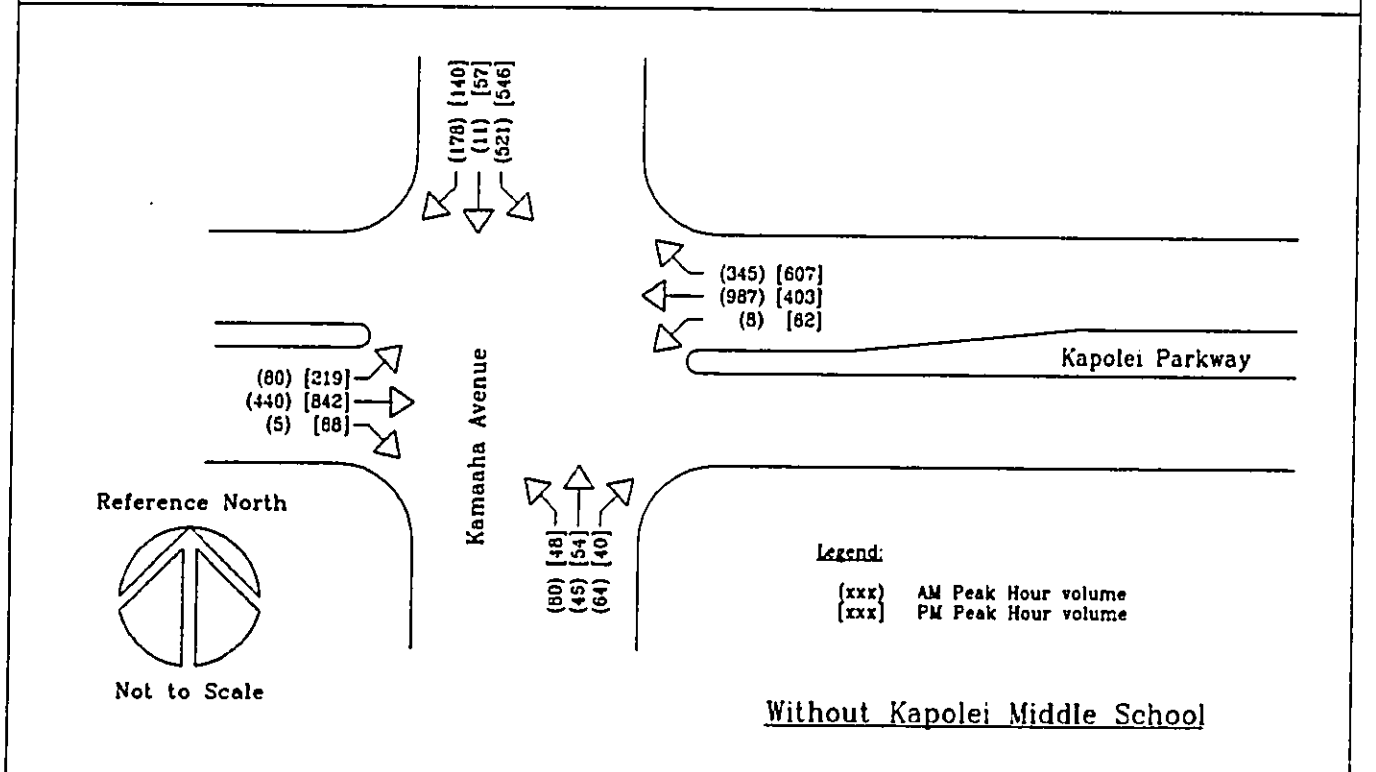
* * *

4 Transportation Research Board, National Research Council, *Highway Capacity Manual, Third Edition, Updated 1994*, Washington, D.C. 1994.

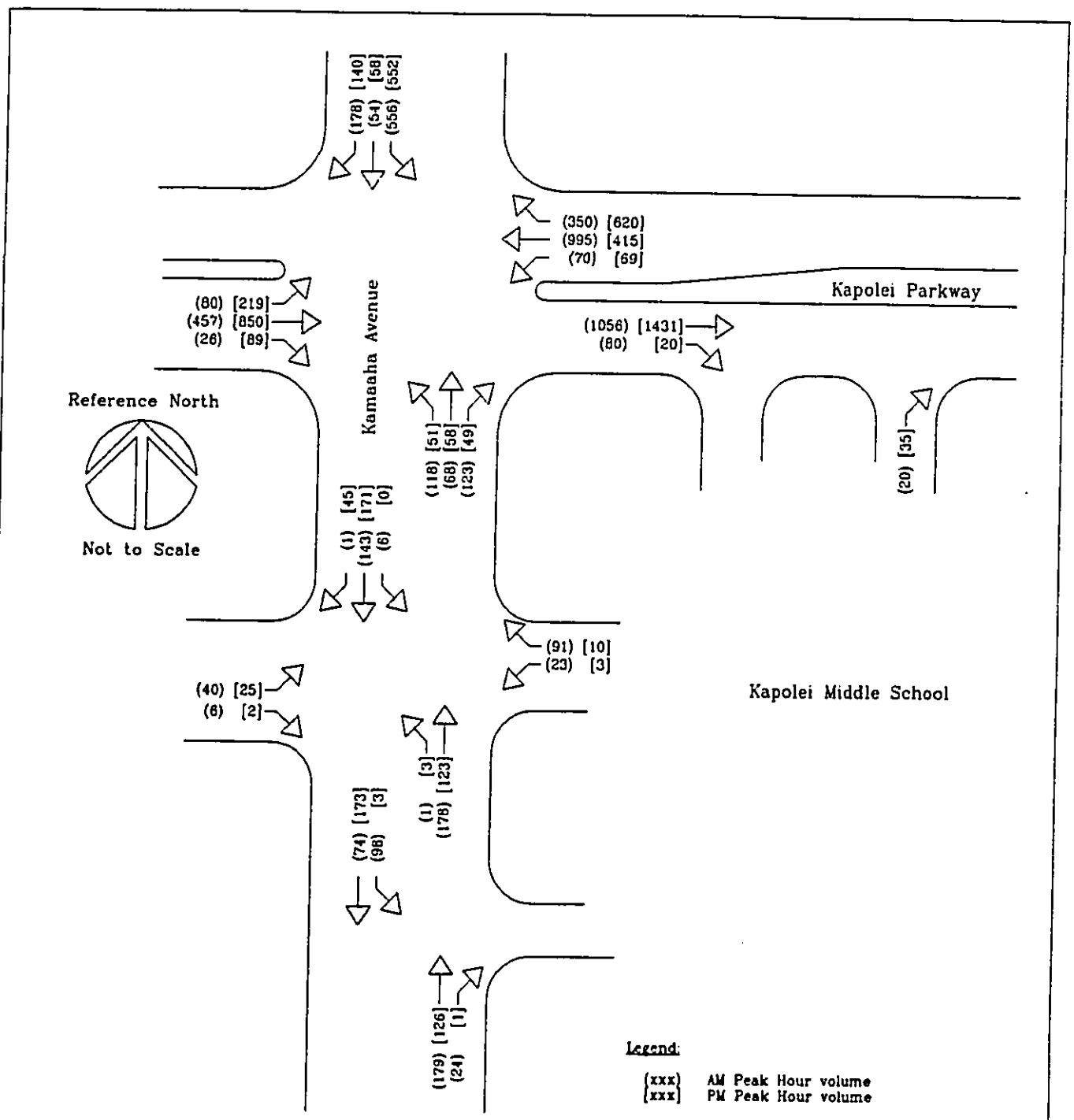



| | | |
|---|---|---|
| Kapolei Middle School Traffic Assessment<br>prepared by: Julian Ng, Incorporated May 1997 | Project Location Portion of Kapolei, Oahu | Exhibit 1 |




| | | |
|---|---|---|
| Kapolei Middle School<br>Traffic Assessment | Traffic Assignments<br>Baseline Conditions | Exhibit<br>2 |
| prepared by: Julian Ng, Incorporated May 1997 | | |




| Kapolei Middle School Traffic Assessment | Traffic Assignment with Project | Exhibit 3 |
|---|---|---|
| prepared by: Julian Ng, Incorporated May 1997 | | |

# Villages of Kapolei
# Update of Traffic Impacts

**Prepared for:**

**State of Hawaii**

**Housing Finance and Development Corporation**

**and**

**R. M. Towill Corporation**

**prepared by:**

**Julian Ng, Incorporated**

**P. O. Box 816**

**Kaneohe, Hawaii 96744**

**April 1996**

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA
711 KAPIOLANI BOULEVARD, SUITE
HONOLULU, HAWAII 96813
JEREMY HARRIS
MAYOR
CHARLES O. SWANSON
DIRECTOR

DK KTS PB
RECD AUG 15 1996 RMTC
RF

August 8, 1996

Mr. Nelson Chung
R. M. Towill Corporation
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817-4941

Dear Mr. Chung:

Subject: Villages of Kapolei
Update of Traffic Impacts
TMK: 9-1-16

This is in response to your letter of transmittal dated May 16, 1996, requesting our comments on the updated traffic impacts for the subject project.

We concur with the findings in the updated traffic report. A revised overall master plan reflecting the changes in land use and the roadway layout should be provided to our office.

Should you have any questions, please contact Lance Watanabe of my staff at 523-4199.

Respectfully,

for CHARLES O. SWANSON
Director

## Conclusions and Recommendations

The deletion of Road B between Kaiau Avenue and Kapolei Parkway will affect traffic movements in and around Villages 5 and 6, but conditions at the intersections will not be significantly impacted. Increased traffic turning left from northbound Kaiau Avenue to westbound Kamaaha Avenue in the PM Peak Hour, where very long delays were found previously but signalization was not warranted, would satisfy the peak hour warrant for signalization with the deletion of a portion of Road B. Traffic signals at this intersection should be installed when warranted.

The land use changes in Village 7 are expected to increase entering traffic volumes in the AM Peak Hour but decrease exiting volumes in the AM Peak Hour and volumes in both directions in the PM Peak Hour. The deletion of the west intersection of Collector Road D with Kapolei Parkway would result in increased turning movements at the Road B and Kapolei Parkway intersection; however, adequate capacity is available at that location to accommodate the increased volumes.

The provision of a second lane for southbound left turns to Kapolei Parkway was reevaluated. At the Fort Barrette Road intersection, near capacity would describe intersection conditions in the PM Peak Hour; however, this condition would be similar to that at the Fort Barrette Road and Kamaaha Avenue intersection. At the Kamaaha Avenue and Kapolei Parkway intersection, conditions would remain under capacity even with a single lane for the southbound left turns.

At the intersection of Fort Barrette Road and Kapolei Parkway, the double left turn lane on the southbound approach is recommended so that peak hour conditions will be under capacity. At the intersection of Kamaaha Avenue and Kapolei Parkway, the long required length of a single left turn lane indicates that the previously proposed laneage for the southbound approach consisting of a left turn lane, a left turn/through option lane, and a right turn only lane would be preferable.

# APPENDIX F

## Space Program

| 1996 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| House Building #1 | | | | House | | | | | |
| General Classroom | 11 | 900 SF | 9,900 SF | General Classrooms | 12 | 860 SF | 10,320 SF | | |
| Special Education Resource (of 5) | 1 | 810 SF | 810 SF | - | - | - | | | |
| Supplemental Classoom (of 5) | 1 | 900 SF | 900 SF | - | - | - | | | |
| General Science (of 4) | 1 | 1,600 SF | 1,600 SF | - | - | - | | | |
| Special Ed Self. Contained | 1 | 1,400 SF | 1,400 SF | Special Ed Self. Contained | 1 | 1,030 SF | 1,030 SF | | |
| - | - | - | | Science Lab | 2 | 1,250 SF | 2,500 SF | | |
| Classroom Count | 15 | | | Classroom Count | 15 | | | | |
| | | | | | | | | | |
| - | - | - | | Breakout Rooms | 6 | 80 SF | 480 SF | | |
| - | - | - | | Commons Space | 1 | 886 SF | 886 SF | | |
| | | | | | | | | | |
| Faculty Center | 1 | 635 SF | 635 SF | Faculty Center (includes staff toilet) | 1 | 878 SF | 878 SF | | |
| Teacher Center (YRE-MT) | 7 | 85 SF | 595 SF | Teacher Center (YRE-MT) | 1 | 555 SF | 555 SF | | |
| - | - | - | | Counselor office | 1 | 80 SF | 80 SF | | |
| - | - | - | | Conference Room | 1 | 80 SF | 80 SF | | |
| FAD Space Total | | | 16,040 SF | FAD Space Total | | | 16,809 SF | | |
| | | | | | | | | | |
| - | - | - | | Janitor | 1 | 72 SF | 72 SF | | |
| - | - | - | | Janitor | 1 | 48 SF | 48 SF | | |
| - | - | - | | Toilets/ Girls & Boys | 4 | 218 SF | 872 SF | | |
| - | - | - | | Main Electrical Room | 1 | 108 SF | 108 SF | | |
| - | - | - | | Electrical Room | 1 | 48 SF | 48 SF | | |
| | | | | Electrical Room | 1 | 56 SF | 56 SF | | |
| - | - | - | | Electrical Panel Room | 1 | 42 SF | 42 SF | | |
| - | - | - | | Electrical Pump Room | 1 | 42 SF | 42 SF | | |
| - | - | - | | Signal Room | 2 | 60 SF | 120 SF | | |
| | | | | Building Space Total | | | 18,217 SF | 1.092 | 19,888 SF |
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | | 4,131 SF | | |
| | | | | | | | | | |
| House Building #2 | | | | House #2 | | | | | |
| General Classroom | 11 | 900 SF | 9,900 SF | General Classrooms | 12 | 860 SF | 10,320 SF | | |
| Special Education Resource (of 5) | 2 | 810 SF | 1,620 SF | - | - | - | | | |
| Supplemental Classoom (of 5) | 1 | 900 SF | 900 SF | - | - | - | | | |
| General Science (of 4) | 1 | 1,600 SF | 1,600 SF | - | - | - | | | |
| - | - | - | | Special Ed Self. Contained | 1 | 1,030 SF | 1,030 SF | | |
| - | - | - | | Science Lab | 2 | 1,250 SF | 2,500 SF | | |
| Classroom Count | 15 | | | Classroom Count | 15 | | | | |
| | | | | | | | | | |
| - | - | - | | Breakout Rooms | 6 | 80 SF | 480 SF | | |
| - | - | - | | Commons Space | 1 | 886 SF | 886 SF | | |

| 1996 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area |
|---|---|---|---|
| Faculty Center | 1 | 835 SF | 835 SF |
| Teacher Center (YRE-MT) | 7 | 85 SF | 595 SF |
| - | - | - | |
| - | - | - | |
| FAD Spaces Total | | | 15,450 SF |
| | | | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| | - | | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| | | | |
| | | | |
| | | | |
| | | | |
| House Building #3 | | | |
| General Classroom | 11 | 900 SF | 9,900 SF |
| Special Education Resource (of 5) | 2 | 810 SF | 1,620 SF |
| Supplemental Classoom (of 5) | 1 | 900 SF | 900 SF |
| General Science (of 4) | 1 | 1,600 SF | 1,600 SF |
| - | - | - | |
| - | - | - | |
| Classroom Count | 15 | | |
| | | | |
| - | - | - | |
| - | - | - | |
| | | | |
| Faculty Center | 1 | 835 SF | 835 SF |
| Teacher Center (YRE-MT) | 7 | 85 SF | 595 SF |
| - | - | - | |
| - | - | - | |
| FAD Spaces Total | | | 15,450 SF |
| | | | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| - | - | - | |
| | | | |
| - | - | - | |

| NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|
| Faculty Center (includes staff toilet) | 1 | 878 SF | 878 SF | | |
| Teacher Center (YRE-MT) | 1 | 555 SF | 555 SF | | |
| Counselor office | 1 | 80 SF | 80 SF | | |
| Conference Room | 1 | 80 SF | 80 SF | | |
| FAD Spaces Total | | | 16,809 SF | | |
| | | | | | |
| Janitor | 1 | 72 SF | 72 SF | | |
| Janitor | 1 | 48 SF | 48 SF | | |
| Toilets/ Girls & Boys | 4 | 218 SF | 872 SF | | |
| Main Electrical Room | 1 | 108 SF | 108 SF | | |
| Electrical Room | 1 | 48 SF | 48 SF | | |
| Electrical Room | 1 | 56 SF | 56 SF | | |
| Electrical Panel Room | 1 | 42 SF | 42 SF | | |
| Electrical Pump Room | 1 | 42 SF | 42 SF | | |
| Signal Room | 2 | 60 SF | 120 SF | | |
| Building Spaces Subtotal | | | 16,217 SF | 1.092 | 19,889 SF |
| | | | | | |
| Covered Outdoor Circulation | | | 4,131 SF | | |
| | | | | | |
| House #3 | | | | | |
| General Classrooms | 12 | 860 SF | 10,320 SF | | |
| - | - | - | | | |
| - | - | - | | | |
| - | - | - | | | |
| Special Ed Self. Contained | 1 | 1,030 SF | 1,030 SF | | |
| Science Lab | 2 | 1,250 SF | 2,500 SF | | |
| Classroom Count | 15 | | | | |
| | | | | | |
| Breakout Rooms | 6 | 80 SF | 480 SF | | |
| Commons Space | 1 | 886 SF | 886 SF | | |
| | | | | | |
| Faculty Center (includes staff toilet) | 1 | 878 SF | 878 SF | | |
| Teacher Center (YRE-MT) | 1 | 555 SF | 555 SF | | |
| Counselor office | 1 | 80 SF | 80 SF | | |
| Conference Room | 1 | 80 SF | 80 SF | | |
| FAD Spaces Total | | | 16,809 SF | | |
| | | | | | |
| Janitor | 1 | 72 SF | 72 SF | | |
| Janitor | 1 | 48 SF | 48 SF | | |
| Toilets/ Girls & Boys | 4 | 218 SF | 872 SF | | |
| Main Electrical Room | 1 | 108 SF | 108 SF | | |
| Electrical Room | 1 | 48 SF | 48 SF | | |
| Electrical Room | 1 | 56 SF | 56 SF | | |
| Electrical Panel Room | 1 | 42 SF | 42 SF | | |

**Kapolei Middle School**
**Preliminary Space Program**

| 1996 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| - | - | - | | Electrical Pump Room | 1 | 42 SF | 42 SF | | |
| - | - | - | | Signal Room | 2 | 60 SF | 120 SF | | |
| | | | | **Building Spaces Subtotal** | | | 18,217 SF | 1.092 | 19,888 SF |
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | | 4,131 SF | | |
| | | | | | | | | | |
| | | | | | | | | | |
| **Library Media Center** | | | | **Media Center** | | | | | |
| Office | 1 | 250 SF | 250 SF | Office | 1 | 280 SF | 280 SF | | |
| | | | | | | | | | |
| **Large Group Area** | | | | Large Open Space | 1 | 5,687 SF | 5,687 SF | | |
| - | - | - | - | Display & Stacks (in Large Open Space) | | - | - | | |
| Circulation Desk | 1 | 286 SF | 286 SF | Circulation (in Large Open Space) | | - | - | | |
| Reading/Study Bookstack | 1 | 3,616 SF | 3,616 SF | OPAC/ Reading/ Study (in Large Open Space) | | - | - | | |
| Periodicals | 1 | 266 SF | 266 SF | Periodicals (in Large Open Space) | | - | - | | |
| - | - | - | - | Large Group Discussion (in Large Open Space) | | - | - | | |
| Resource Centers | 3 | 550 SF | 1,650 SF | Multi-Ethnic Collection (in Large Open Space) | | - | - | | |
| Student Conference | 1 | 252 SF | 252 SF | Student Conference | 1 | 255 SF | 255 SF | | |
| Video Production Room | 1 | - | - | Video Production Room | 1 | 165 SF | 165 SF | | |
| Workroom/Production Room | 1 | 800 SF | 800 SF | Workroom/Production Room | 1 | 965 SF | 965 SF | | |
| Prof. Staff & Materials Area | 1 | 336 SF | 336 SF | - | - | - | - | | |
| - | - | - | | Technology Computer Lab | 1 | 841 SF | 841 SF | | |
| Storage Room | 1 | 324 SF | 324 SF | Storage | 1 | 220 SF | 220 SF | | |
| Custodial Closet | 1 | 40 SF | 40 SF | [redacted] | | | | | |
| Staff Toilet | 2 | 75 SF | 150 SF | Staff Toilet | 2 | 56 SF | 112 SF | | |
| Media Control Center | 1 | 450 SF | 450 SF | Media Control/Signal Room | 1 | 464 SF | 464 SF | | |
| Signal Processing Room | 1 | 150 SF | 150 SF | Signal Processing Room (in Media Contr | - | - | - | | |
| FAD Space Subtotal | | | 8,570 SF | FAD Spaces Subtotal | | | 8,989 SF | | |
| | | | | | | | | | |
| Mechanical/Electrical Room | 1 | | | Mechanical Room | 1 | 176 SF | 176 SF | | |
| - | - | - | | Electrical Room | 1 | 128 SF | 128 SF | | |
| | | | | Building Spaces Subtotal | | | 9,293 SF | 1.07 | 9,982 SF |
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | 224 SF | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| **Science & Technology Center** | | | | **Science & Technology Center** | | | | | |
| Arts Education | | | | Art Education | | | | | |
| General Classroom | 2 | 1,600 SF | 3,200 SF | Exploratory Art Lab | 2 | 1,701 SF | 3,402 SF | | |
| Kiln Room | 2 | 136 SF | 272 SF | Kiln Room (in Covered Outdoor Area) | - | - | - | | |
| Storage | 2 | 176 SF | 352 SF | Storage | 2 | 182 SF | 364 SF | | |
| | | | 3,824 SF | | | | | | |
| | | | | | | | | | |
| **Home Economics** | | | | | | | | | |
| Classroom/Dining Area | 1 | 779 SF | 779 SF | FCS Lab | 1 | 1,600 SF | 1,600 SF | | |

| 1996 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| Food Preparation | 5 | 80 SF | 400 SF | Food Preparation (in FCS Lab) | - | - | - | | |
| Clothing & Textiles | 1 | 366 SF | 366 SF | Clothing & Textiles (in FCS Lab) | - | - | - | | |
| Home Furnishings | 1 | 154 SF | 154 SF | Home Furnishings (in FCS Lab) | - | - | - | | |
| Storage Room | 1 | 140 SF | 140 SF | Storage | 1 | 110 SF | 110 SF | | |
| Laundry Room | 1 | 56 SF | 56 SF | Laundry Room | 1 | 90 SF | 90 SF | | |
| | | | 1,895 SF | | | | | | |
| Wood Shop | | | | Industrial Technology | | | | | |
| Classroom | 1 | 528 SF | 528 SF | Industial Technology Classroom | 1 | 2,220 SF | 2,220 SF | | |
| Office | 1 | 90 SF | 90 SF | Office (in Faculty Center) | - | - | - | | |
| Supplies & Parts Room | 1 | 75 SF | 75 SF | Tool Room | 1 | 754 SF | 754 SF | | |
| Bench Woodwork Area | 1 | 930 SF | 930 SF | Bench Woodwork Area (in Classroom) | - | - | - | | |
| Machine Woodwork | 1 | 700 SF | 700 SF | Machine Woodwork (in Classroom) | - | - | - | | |
| Project Storage Rooms | 5 | 90 SF | 450 SF | Project Storage Rooms (in Classroom) | - | - | - | | |
| Materials Storage Room | 1 | 160 SF | 160 SF | Materials Storage Room | 1 | 416 SF | 416 SF | | |
| Finishing Room | 1 | 120 SF | 120 SF | Finishing Room (in Classroom) | - | - | - | | |
| Compressor Room | 1 | 25 SF | 25 SF | Compressor Room (in Tool Room) | - | - | - | | |
| Toilets (Girls & Boys) | 2 | 150 SF | 300 SF | Toilets (Girls & Boys) | 2 | 226 SF | 452 SF | | |
| | | | 3,378 SF | | | | | | |
| Industrial Technology | 1 | 3,388 SF | 3,388 SF | Technology Exploration & Application C | 1 | 2,850 SF | 2,850 SF | | |
| General Science Classroom | 1 | 1,440 SF | 1,440 SF | Exploratory Science Lab | 1 | 1,570 SF | 1,570 SF | | |
| Teachers Prep Room | 1 | 160 SF | 160 SF | Storage | 1 | 150 SF | 150 SF | | |
| | | | 1,600 SF | | | | | | |
| Computer Resource Center | 2 | 900 SF | 1,800 SF | Technology Computer Lab | 1 | 860 SF | 860 SF | | |
| - | - | - | - | Commons Project Area | 1 | 1,080 SF | 1,080 SF | | |
| Business Education | 1 | 1,376 SF | 1,376 SF | Business/FCS Lecture | 1 | 950 SF | 950 SF | | |
| Teacher Center (YRE-MT) | 5 | 85 SF | 425 SF | Faculty Center (7 staff) | 1 | 345 SF | 345 SF | | |
| - | - | - | - | Teacher Storage | 1 | 200 SF | 200 SF | | |
| - | - | - | - | Student Activities Coordinator (SAC) | 1 | 120 SF | 120 SF | | |
| - | - | - | - | SAC Storage | 1 | 70 SF | 70 SF | | |
| FAD Space Subtotal | | | 17,686 SF | FAD Space Subtotal | | | 17,603 SF | | |
| - | - | - | - | Building Entry/Display | 1 | 320 SF | 320 SF | | |
| - | - | - | - | Staff Toilet | 1 | 60 SF | 60 SF | | |
| - | - | - | - | Janitor | 1 | 40 SF | 40 SF | | |
| - | - | - | - | Mechanical | 1 | 270 SF | 270 SF | | |
| | | | | Mechanical/ Dust Collection | 1 | 180 SF | 180 SF | | |
| - | - | - | - | Signal Room | 1 | 60 SF | 60 SF | | |
| - | - | - | - | Electrical Room | 1 | 110 SF | 110 SF | | |
| | | | | Building Space Subtotal | | | 18,643 SF | 1.21 | 22,629 SF |

**Kapolei Middle School**
**Preliminary Space Program**

| 1996 PADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | 749 SF | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| Administrative Center | | | | Administrative Center | | | | | |
| Principal's Office | 1 | 200 SF | 200 SF | Principal's Office | 1 | 208 SF | 208 SF | | |
| Vice-Principal's Office | 2 | 200 SF | 400 SF | Vice-Principal Offices | 2 | 180 SF | 360 SF | | |
| - | - | - | - | Vice-Principal Office/Conference | 1 | 200 SF | 200 SF | | |
| General Office | 1 | 420 SF | 420 SF | General Office | 1 | 624 SF | 624 SF | | |
| YRE-MT Clerk | 1 | 80 SF | 80 SF | YRE-MT Clerk (in General Office) | - | - | - | | |
| FMS | 1 | 100 SF | 100 SF | FMS (in General Office) | - | - | - | | |
| Duplicating Room | 1 | 130 SF | 130 SF | Duplicating Room | 1 | 144 SF | 144 SF | | |
| Storage Room | 1 | 240 SF | 240 SF | Storage Room | 1 | 208 SF | 208 SF | | |
| Lobby | 1 | 240 SF | 240 SF | Lobby | 1 | 408 SF | 408 SF | | |
| Staff Conference Room | 1 | 240 SF | 240 SF | Staff Conference Room | 1 | 234 SF | 234 SF | | |
| Registrar's Office | 1 | 120 SF | 120 SF | Registrar's Office | 1 | 120 SF | 120 SF | | |
| Registrar's Workroom | 1 | 600 SF | 600 SF | Registrar's Workroom | 1 | 420 SF | 420 SF | | |
| Health Service: | | | - | Health Service: | | | | | |
| Treatment Room | 1 | 170 SF | 170 SF | Treatment Room | 1 | 90 SF | 90 SF | | |
| Recovery Room | 1 | 200 SF | 200 SF | Recovery Room | 1 | 180 SF | 180 SF | | |
| Nurse's Station/Waiting Area | 1 | 150 SF | 150 SF | Nurse's Station/Waiting Area | 1 | 138 SF | 138 SF | | |
| Nurse's Toilet | 1 | 70 SF | 70 SF | Nurse's Toilet | 1 | 50 SF | 50 SF | | |
| Counselor's Office | 6 | 140 SF | 840 SF | Counselors Offices | 4 | 133 SF | 532 SF | | |
| - | - | - | - | Counselors Offices | 2 | 130 SF | 260 SF | | |
| | | | | | | | | | |
| Special Services/Conf. | 1 | 264 SF | 264 SF | Special Services/Conf. | 1 | 238 SF | 238 SF | | |
| Staff Lounge | 1 | 190 SF | 190 SF | Staff Lounge | 1 | 171 SF | 171 SF | | |
| Mens's & Women's Toilet | 2 | 70 SF | 140 SF | Toilets (Mens's & Women's) | 2 | 68 SF | 136 SF | | |
| Custodial Closet | 1 | 40 SF | 40 SF | Custodial Closet | 1 | 55 SF | 55 SF | | |
| Hallway/Waiting Alcove | 1 | 864 SF | 864 SF | Hallway/Waiting Alcove | 1 | 144 SF | 144 SF | | |
| PCNC | 1 | 350 SF | 350 SF | PCNC | 1 | 306 SF | 306 SF | | |
| Communications Room | 1 | 60 SF | 60 SF | Signal Room | 1 | 57 SF | 57 SF | | |
| | | | 6,108 SF | | | | | | |
| | | | | | | | | | |
| Intererant Special Ed. | 1 | 330 SF | 330 SF | Intinerant Special Ed. | 1 | 365 SF | 365 SF | | |
| FAD Space Subtotal | | | 6,438 SF | FAD Space Subtotal | | | 6,648 SF | | |
| | | | | | | | | | |
| Elec./Mech. Room | 1 | SF | SF | Mechanical Room | 1 | 107 SF | 107 SF | | |
| - | - | - | - | Electrical Room | 1 | 60 SF | 60 SF | | |
| - | - | - | - | Signal/Electrical | 1 | 60 SF | 60 SF | | |
| - | - | - | - | Electrical Equipment | 1 | 60 SF | 60 SF | | |
| | | | | Building Space Subtotal | | | 6,935 SF | 1.39 | 8,268 SF |
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | 672 SF | | | |
| | | | | | | | | | |

| 1998 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/8/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| Cafeteria/Multi-Purpose Building | | | | Cafeteria/Multi-Purpose Building | | | | | |
| Student Dining Room | 1 | 6,000 SF | 6,000 SF | Student Dining/Multi-purpose | 1 | 5,103 SF | 5,103 SF | | |
| Portable Stage Area (in Dining) | 1 | 480 SF | | Stage Area (in Music) | - | - | - | | |
| Stage Storage | 1 | 250 SF | 250 SF | Stage Storage (in Music) | - | - | - | | |
| Ramp/Chair Storage | 1 | 200 SF | 200 SF | Chair Storage | 1 | 174 SF | 174 SF | | |
| - | - | - | - | Ramp | 1 | 285 SF | 285 SF | | |
| Amplifier area | 1 | 20 SF | 20 SF | Amplifier area | 1 | 30 SF | 30 SF | | |
| Hallway | 1 | 120 SF | 120 SF | Hallway (in Music) | - | - | - | | |
| Boy's Dressing/Storage | 1 | 180 SF | 180 SF | Boy's Dressing/Storage (In Music) | - | - | - | | |
| Girl's Dressing/Storage | 1 | 180 SF | 180 SF | Girl's Dressing/Storage (in Music) | - | - | - | | |
| Boy's Toilet (Cafeteria) | 1 | 70 SF | 70 SF | Women's Toilet (Outside for Public Use) | 1 | 160 SF | 160 SF | | |
| Girl's Toilet (Cafeteria) | 1 | 70 SF | 70 SF | Men's Toilet (Ouside for Public Use) | 1 | 110 SF | 110 SF | | |
| Custodial Closet (Cafeteria) | 1 | 40 SF | 40 SF | Custodial Closet | 1 | 30 SF | 30 SF | | |
| Staff Dining Room | 1 | 435 SF | 435 SF | Staff Dining Room | 1 | 440 SF | 440 SF | | |
| | | | 7,565 SF | | | | | | |
| Food Service-Kitchen | | | | | | | | | |
| Food Prep Area | 1 | 1,100 SF | 1,100 SF | Food Prep Area | 1 | 2,660 SF | 2,660 SF | | |
| Dry Storage | 1 | 400 SF | 400 SF | Dry Storage (in Food Prep) | - | - | - | | |
| Walk-in Refrigerator | 1 | 120 SF | 120 SF | Walk-in Refrigerator (in Food Prep) | - | - | - | | |
| Walk-in Freezer | 1 | 140 SF | 140 SF | Walk-in Freezer (in Food Prep) | - | - | - | | |
| Serving Area | 1 | 768 SF | 768 SF | Serving Area | 1 | 850 SF | 850 SF | | |
| Tray Return Area | 1 | 220 SF | 220 SF | Tray Return Area | 1 | 208 SF | 208 SF | | |
| Can Wash Area | 1 | 50 SF | 50 SF | Can Wash Area (in Food Prep) | - | - | - | | |
| Pot & Pan Area | 1 | 128 SF | 128 SF | Pot & Pan Area (in Food Prep) | - | - | - | | |
| Office | 1 | 100 SF | 100 SF | Office (in Food Prep) | - | - | - | | |
| Lockers & Toilets | 2 | 91 SF | 182 SF | Lockers & Toilets (in Food Prep) | - | - | - | | |
| Linen Closet | 1 | 200 SF | 200 SF | Linen Closet (in Food Prep) | - | - | - | | |
| | | | 3,408 SF | | | | | | |
| Custodial Service Center | | | | | | | | | |
| Office/Storage/Repair | 1 | 230 SF | 230 SF | Office/Storage/Repair | 1 | 250 SF | 250 SF | | |
| Locker Area | 1 | 36 SF | 36 SF | Locker Area | 1 | 72 SF | 72 SF | | |
| Tool Room | 1 | 60 SF | 60 SF | Tool Room | 1 | 60 SF | 60 SF | | |
| Water Clos w/ Optional Shower | 1 | 75 SF | 75 SF | Water Clos w/ Optional Shower | 1 | 77 SF | 77 SF | | |
| | | | 401 SF | | | | | | |
| Music (Band) Area | | | | | | | | | |
| 100 Pupil Main Instrument Rm | 2 | 2,500 SF | 5,000 SF | Band Room | 1 | 2,514 SF | 2,514 SF | | |
| Instrument practice room | 6 | 115 SF | 690 SF | Instrument practice room | 3 | 105 SF | 315 SF | | |
| Instrument ensemble room | 2 | 300 SF | 600 SF | Instrument Ensemble Room | 1 | 308 SF | 308 SF | | |
| Instrument repair & storage | 2 | 250 SF | 500 SF | Instrument Repair & Storage (in Band Room) | - | - | - | | |
| Band office/Library | 2 | 185 SF | 370 SF | Band/Chorel/Drama Office/Library | 1 | 362 SF | 362 SF | | |
| - | - | - | - | Choral Room | 1 | 1,440 SF | 1,440 SF | | |

| 1998 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/8/98 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| - | - | - | - | Robe Storage | 1 | 170 SF | 170 SF | | |
| | | | 7,160 SF | | | | | | |
| Music (Common Facilities) | | | | | | | | | |
| Portable Stage (On Dining) | 1 | 480 SF | | Permanent Stage | 1 | 1,125 SF | 1,125 SF | | |
| - | - | - | - | Stage Storage | 1 | 91 SF | 91 SF | | |
| - | - | - | - | Girl's Dressing | 1 | 192 SF | 192 SF | | |
| - | - | - | - | Boy's Dressing | 1 | 192 SF | 192 SF | | |
| - | - | - | - | Student Store | 1 | 265 SF | 265 SF | | |
| Vestibule | 1 | 160 SF | 160 SF | - | - | - | | | |
| Toilets (Music) | 2 | 96 SF | 192 SF | Toilets (Music)) | 2 | 51 SF | 102 SF | | |
| Janitor's Closet (Music) | 1 | 40 SF | 40 SF | | | | | | |
| | | | 392 SF | | | | | | |
| FAD Space Subtotal | | | 18,928 SF | FAD Space Subtotal | | | 17,573 SF | | |
| - | - | - | | Mechanical AHU/Stage | 1 | 72 SF | 72 SF | | |
| - | - | - | | Mechanical AHU/Band &Choral | 1 | 130 SF | 130 SF | | |
| Electrical & Compressor Room | 1 | | | Electric Room | 1 | 108 SF | 108 SF | | |
| - | - | - | | Signal Room | 1 | 73 SF | 73 SF | | |
| | | | | Building Space Subtotal | | | 17,956 SF | 1.14 | 20,410 SF |
| | | | | Covered Outdoor Circulation | | 625 SF | | | |
| PE Locker Shower Building (Boys + Girls) | | | | PE Locker Shower Building (Boys + Girls) | | | | | |
| Locker Room | 2 | 1,040 SF | 2,080 SF | Combination Locker/Shower Room | 2 | 1,364 SF | 2,728 SF | | |
| Gang Shower Room | 2 | 400 SF | 800 SF | Gang Shower Rm (In Combo Locker/Shower Ro | - | | - | | |
| Drying Room | 2 | 255 SF | 510 SF | Drying Room (In Combo Locker/Shower Room) | - | | - | | |
| Shower booth | 2 | 120 SF | 240 SF | Shower Booth (In Combo Locker/Shower Room) | - | | - | | |
| PE Office | 2 | 100 SF | 200 SF | PE Office | 2 | 95 SF | 190 SF | | |
| Faculty Locker/Shower/Tlt | 2 | 100 SF | 200 SF | Faculty Locker/Shower/Toilet | 2 | 90 SF | 180 SF | | |
| Toilet Rm. | 2 | 150 SF | 300 SF | Toilet Room | 2 | 163 SF | 326 SF | | |
| Towel/Supply/Stor. | 2 | 170 SF | 340 SF | Towel/Supply/Stor. | 1 | 137 SF | 137 SF | | |
| General Storage | 2 | 275 SF | 550 SF | PE Equipment Storage | 1 | 562 SF | 562 SF | | |
| Janitor's closet | 2 | 40 SF | 80 SF | Janitor's closet | 1 | 42 SF | 42 SF | | |
| Circulation Area | 2 | 288 SF | 576 SF | - | - | - | | | |
| Laundry Room | 1 | 150 SF | 150 SF | Laundry Room | 1 | 180 SF | 180 SF | | |
| First Aid Room | 1 | 120 SF | 120 SF | First Aide Room | 1 | 127 SF | 127 SF | | |
| | | | 6,146 SF | | | | | | |
| Supplemental Classoom (of 5) | 2 | 900 | 1,800 SF | General Classroom | 2 | 900 SF | 1,800 SF | | |
| FADS Space Subtotal | | | 7,946 SF | FADS Space Subtotal | | | 6,272 SF | | |
| - | - | - | | Janitor's closet | 1 | 60 SF | 60 SF | | |

## Kapolei Middle School
## Preliminary Space Program

| 1996 FADS TYPE/COMPONENT | Origina Numbe | Unit Area | 12/6/96 FADS Area | NEW OR REVISED TYPE/COMPONENT | Curren umbe | Current Unit Area | Current Net Area | NTG Factor | Total Gross Floor Area |
|---|---|---|---|---|---|---|---|---|---|
| . | . | . | | Electrical Room | 1 | 68 SF | 68 SF | | |
| . | . | . | | Mechanical Room | 1 | 90 SF | 90 SF | | |
| . | . | . | | Signal Room | 1 | 62 SF | 62 SF | | |
| | | | | Building Space Subtotal | | | 6,542 SF | 1.22 | 7,981 SF |
| | | | | | | | | | |
| | | | | Covered Outdoor Circulation | | 1,030 SF | | | |
| | | | | | | | | | |
| TOTAL FADS Space | | | 106,506 SF | TOTAL FADS SPACE for Project | | | 106,512 SF | | |
| (102,000 + 5 supp classrooms @ 900 sf ea = 106,506SF) | | | | | | | | | |
| | | | | | Difference in FADS | | 6 SF | | |
| | | | | TOTAL BUILDING SPACE for Project | | | 113,020 SF | 1.14 | 128,824 SF |

# Appendix G

## Correspondence During Early Consultation

**STATE OF HAWAII**
**DEPARTMENT OF EDUCATION**
**Facilities and Support Services Branch**
809 8th Avenue
Honolulu, Hawaii 96816

**DATE:** 06/19/97

*Pages: 3 (including cover sheet)*

**TO:** NAME: Steve Wong
OFFICE: Mitsunaga and Associates, Inc.
FAX NO.: 946-2563

**FROM:** Sanford Beppu
PHONE: (808) 733-4862
EMAIL: sanford_beppu@notes.k12.hi.us
FAX: (808) 733-4865

**SUBJECT:** Kapolei Middle School Draft EA

**COMMENTS/INSTRUCTIONS:**

X Action Required

Sent per your request

For your information only

For your review and comment

For your approval

**REMARKS:**

Our comments are attached. We'll mail original.

Let me know if you have any questions.

Thank you.

| Post-it® Fax Note 7071 | Date 6/19/97 | # of pages ▶ 3 |
|---|---|---|
| To Rogg | From Steve Wong | |
| Co./Dept. | Co. | |
| Phone # | Phone # | |

June 19, 1997

Revisions to Kapolei Middle Draft EA

1. Page ii (first paragraph) and Page vi say that the landowner of the property is the Makai Village Partnership. The last paragraph of Page ii and the last paragraph of Page 1 say that the landowner is the State of Hawaii.

2. Page 2, last paragraph. Correct school name from "Maupalani" to "Mauka Lani."

3. Page 3:

   a) Report says that "Ewa has a total of 5 elementary schools, each of which has a maximum capacity of 1,000 students: Ewa, Mauka Lani, Ewa Beach, Makakilo, and Kapolei Elementary Schools." Revise this sentence to read:

   "The Campbell complex in Ewa/Makakilo has a total of ten elementary schools (1997 capacities in parentheses): Ewa (685), Mauka Lani (544), Ewa Beach (594), Makakilo (594), Kapolei (543), Holomua (450), Pohakea (613), Kaimiloa (665), Barbers Point (769), and Iroquois Point (1,019)."

   b) Change 1997 enrollment projection from 35,915 to 37,466.

   c) Change Kapolei High School future enrollment from "1,500 to 1,800" to "1,800 to 2,400."

   d) Change "Kapolei Intermediate" to "Kapolei Middle."

4. Page 4, first paragraph: Sentence should read "In preparing for the 21st century, the Kapolei Middle School will be the *third* public school in Hawaii..."

5. Page 17, second paragraph. The project is within the Kapolei Elementary School service area.

6. Page 17, third paragraph. Holomua Elementary opened in September, 1996.

7. Page 20, second full paragraph. The "City and County of Honolulu Department of General Planning" is now the "City and County of Honolulu Planning Department."

8. Page 20, second full paragraph. The Villages of Kapolei Update of Traffic Impacts (Julian Ng, 1996), does not factor in a possible intersection on Kapolei Parkway approximately 800 feet from Fort Barrette Road. This intersection would link the new high school and Village 6 via a connection to Kaiau Avenue.

Also, the Update shows Collector Road "D" as a dead end at the eastern boundary of the high school site. Our previous discussions with DAGS and DTS resulted in this road being planned as a secondary access for the high school.

9. Pages 38-39:

a) The project's relationship to the City and County of Honolulu Ewa Development Plan should also be discussed.

b) The report states that "To this end, the City and County of Honolulu has designated the project site and the surrounding area for Urban Use which is compatible with school use." However, the subsequent section in the report states that the City has zoned the property AG-1.

c) The discussion of General Plan policies on the bottom of the page should be included in Section C (City and County of Honolulu General Plan) beginning on Page 37.

d) Not clear on what Act 15, SLH 1988 zoning is. Act 15 relates to the expediting of housing developments (and certain related uses) and is not a zoning mechanism in itself (?).

# COMMISSION ON PERSONS WITH DISABILITIES

919 Ala Moana Boulevard, Room 101 • Honolulu, Hawaii 96814
Ph. (808) 586-8121(V/TDD) • Fax (808) 586-8129


## DOCUMENT REVIEW TECHNICAL ASSISTANCE

**May 20, 1997**

**KAPOLEI INTERMEDIATE SCHOOL**

| | |
|---|---|
| CPD Job #: | 97-149 |
| Project # | Not Provided |
| Project Manager: | Lester Chuck<br>Department of Education |
| Design Consultant: | Steve Wong<br>Matsunaga & Associates, Inc. |
| Documents Reviewed: | Plans dated: 4/10/97<br>Specs date: Not Provided<br>Transmittal letter: 5/16/97 |

The following comments identify those areas of this project which do not meet the minimum design requirements set forth in HRS 103-50. These comments represent technical assistance only and do not constitute a final Document Review required by HRS 103-50 and HRS103.50.5. A written reply and/or submittal of plans addressing the noted deficiencies is requested. The final Document Review will be provided upon submittal of the construction documents complying with the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

| ITEM | SHEET | ACCESSIBILITY REVIEW FINDING | ADAAG REFERENCE |
|---|---|---|---|
| | | General Note: The plans submitted are coming along well. A more comprehensive review will be provided when they are more complete. Listed below are some observations found that need to be addressed in the resubmittal. When resubmitting the documents the items that will be reviewed will involve the whole range of accessibility requirements as found in ADAAG. | |
| 1 | T-2<br>A-2 | Accessible Parking: When you have different parking areas and accessible parking stalls are being provided in each such area, then at least one stall out of each eight stalls shall be required to be van accessible for each area.. Verify the calculations to ensure the accurate number of van accessible stalls. | 4.1.2(5)(a)<br>4.1.2(5)(b) |
| 2 | AC-1<br>AC-6<br>AC-7<br>AC-8 | Building C<br>Dress-Rms C110,.C115, Locker Rms. C118, ; A fixed bench is required. | 4.35.4 |
| 3 | AC-1<br>AC-6<br>AC-7<br>AC-8<br>AC-9 | Building C<br>Toilet Rms. C105, C106, C112, C113, C114, C121: Indicate the grab bars on plan. | 4.16.4 |

| | | | |
|---|---|---|---|
| 4 | AF-11 | Building F, G, H; Toilet Room: Door swing shall not swing onto the clear floor space of any fixture. | 4.22.2 |
| 5 | AI-1 | Building I: Rms. 1108, 1107, - Locker-Showers: A fixed bench that meets ADAAG standards is required. | 4.35.4 |
| 6 | AI-1<br>AI-4 | Building I: Toilet Shower Rms. 1106, 1107, 1117 1121, 1121: Indicate the grab bars. | 4.22.4<br>4.28.3 |
| 7 | E-1 | Indicate the mounting height for the visual alarm. | |

Reviewed By:

Gary L. Batcheller
Facility Access Technician

CC: File
HRS 103.50 Coordinator

ACCESSIBILITY PLANNING & CONSULTING, INC.
Architectural Barrier Identification & ADA Compliance Consulting
Barrier Free Design and Construction Management Services

June 2, 1997

Mitsunaga & Associates, Inc.
747 Amana Street, Suite 216
Honolulu, Hawaii 96814

Attention: Steven D. Wong, AIA

Reference: Kapolei Middle School

Dear Mr. Wong:

At your request I have conducted a review of the design documents on the above named project to determine compliance with the requirements of Title III of the Americans with Disabilities Act of 1990 Final Design Guidelines. The attached comments address those areas which do not indicate compliance with the minimum requirements.

Please contact me at 545-1141 if you would like to schedule a meeting to discuss this report in greater detail. Thank you for the opportunity to provide our services.

Sincerely,

Bruce M. Clark
President

Enclosure

ACCESSIBILITY PLANNING & CONSULTING, INC.
Architectural Barrier Identification & ADA Compliance Consulting
Barrier Free Design and Construction Management Services

# Design Document Review

June 2, 1997

Mitsunaga & Associates, Inc.
747 Amana Street, Suite 216
Honolulu, Hawaii 96814

Attention: Steven D. Wong, AIA

Reference: Kapolei Middle School
Plans Dated 4/10/97 - 132 Sheets - Pre-Design Submittal

Project No.:

The above named documents were reviewed for technical accuracy for compliance with the applicable provisions of the Americans with Disabilities Act of 1990, Title III Final Design Guidelines (ADAAG). The following comments reference those elements which do not appear to comply fully with the guidelines or are not indicated on these plans but must be included in the final design documents. The bold text indicates the applicable requirement. The *Italicized* text is quoted from the applicable Design Guidelines.

Sheet (#AA-5)

1) The clear floor space, required to accommodate a wheelchair at the lavatory (30" x 48"), is not provided in toilet rooms A105 and A106. The door swings into the required clear space.

**Relocate the lavatory closer to the water closet.**

*4.22.2 Doors. All doors to accessible toilet rooms shall comply with 4.13. Doors shall not swing into the clear floor space required for any fixture.*

Sheet (#AB-5)

1) The clear floor space, required to accommodate a wheelchair at the lavatory (30" x 48"), is not provided in toilet rooms B109 and B110. The door swings into the required clear space.

**Relocate the lavatory closer to the water closet.**

*4.22.2 Doors. All doors to accessible toilet rooms shall comply with 4.13. Doors shall not swing into the clear floor space required for any fixture.*

2) If a shower is indicated in the Janitors Room B113, the clear floor space at the front does not comply.

**Relocate the wall on the latch side of the door to be flush with the front of the shower.**

*4.21.2 Size and Clearances. Except as specified in 9.1.2, shower stall size and clear floor space shall comply with Fig. 35(a) or (b). The shower stall in Fig. 35(a) shall be 36 in by 36 in (915 mm by 915 mm). Shower stalls required by 9.1.2 shall comply with Fig. 57(a) or (b). The shower stall in Fig. 35(b) will fit into the space required for a bathtub.*

Sheet (#AC-7)

1) A shower is indicated in Toilet Room C121. The seat wall does not appear to be flush with the front of the shower.

**Cut back the wall between the shower and the lavatory to be flush with the seat wall.**

*4.21.3 Seat. A seat shall be provided in shower stalls 36 in by 36 in (915 mm by 915 mm) and shall be as shown in Fig. 36. The seat shall be mounted 17 in to 19 in (430 mm to 485 mm) from the bathroom floor and shall extend the full depth of the stall. In a 36 in by 36 in (915 mm by 915 mm) shower stall, the seat shall be on the wall opposite the controls. Where a fixed seat is provided in a 30 in by 60 in minimum (760 mm by 1525 mm) shower stall, it shall be a folding type and shall be mounted on the wall adjacent to the controls as shown in Fig. 57. The structural strength of seats and their attachments shall comply with 4.26.3.*

Sheet (#AC-8) .

1) The accessible toilet stall located in the Men's Toilet Room C106 provides 54" clear width and 42" depth (60" x 59" required).

**Provide the minimum required clearance of 60" x 59".**

*4.17.3* Size and Arrangement. The size and arrangement of the standard toilet stall shall comply with Fig. 30(a), Standard Stall. Standard toilet stalls with a minimum depth of 56 in (1420 mm) (see Fig. 30(a)) shall have wall-mounted water closets. If the depth of a standard toilet stall is increased at least 3 in (75 mm), then a floor-mounted water closet may be used. Arrangements shown for standard toilet stalls may be reversed to allow either a left- or right-hand approach. Additional stalls shall be provided in conformance with 4.22.4.*

2) The urinal partitions, in the Men's toilet room C106, extend 33" from the wall. Clearance of 30" is provided between the urinal partitions.

**Either cut back partitions to extend no more than 24" from the wall or relocate the urinal partition to provide 36" clearance at the urinal.**

*4.2.4.2 Relationship of Maneuvering Clearance to Wheelchair Spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided as shown in Fig. 4(d) and (e).*

3) Dressing Room C110 does not indicate the provisions of a bench.

**Provide a bench and full length mirror.**

*4.35 Dressing and Fitting Rooms.*

*4.35.4 Bench. Every accessible dressing room shall have a 24 in by 48 in (610 mm by 1220 mm) bench fixed to the wall along the longer dimension. The bench shall be mounted 17 in to 19 in (430 mm to 485 mm) above the finish floor. Clear floor space shall be provided alongside the bench to allow a person using a wheelchair to make a parallel transfer onto the bench. The structural strength of the bench and attachments shall comply with 4.26.3. Where installed in conjunction with showers, swimming pools, or other wet locations, water shall not accumulate upon the surface of the bench and the bench shall have a slip-resistant surface.*

*4.35.5 Mirror: Where mirrors are provided in dressing rooms of the same use, then in an accessible dressing room, a full-length mirror, measuring at least 18 in wide by 54 in high (460 mm by 1370 mm), shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.*

Sheet (AC-9)

1) The door to the accessible toilet stall, in the Women's toilet room (C-105), is located opposite the water closet.

**Either relocate the water closet to the opposite side of the stall or relocate the door to conform to the standard stall end of row design as depicted in ADAAG Figure (a-1).**

*See ADAAG Figure (a-1).*

2) The Janitor and Sound Rooms, C102 and C103, do not indicate the required 60" clear floor space within the room to make a turn.

**Provide either a 60" clear turning space or space to allow a T-turn within all rooms required to be accessible.**

*4.1.1 (3)* Areas Used Only by Employees as Work Areas. Areas that are used only as work areas shall be designed and constructed so that individuals with disabilities can approach, enter, and exit the areas. These guidelines do not require that any areas used only as work areas be constructed to permit maneuvering within the work area or be constructed or equipped (i.e., with racks or shelves) to be accessible.*

*4.1.3 (1) At least one accessible route complying with 4.3 shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility.*

*4.2.3* Wheelchair Turning Space. The space required for a wheelchair to make a 180-degree turn is a clear space of 60 in (1525 mm) diameter (see Fig. 3(a)) or a T-shaped space (see Fig. 3(b)).*

Sheet (E-111)

1) Science Room E111 appears to provide a shower. The dimensions of the shower do not meet the 36" x 36" required dimensions.

**If showers are provided, then one of each type must comply.**

*4.21.2 Size and Clearances. Except as specified in 9.1.2, shower stall size and clear floor space shall comply with Fig. 35(a) or (b). The shower stall in Fig. 35(a) shall be 36 in by 36 in (915 mm by 915 mm). Shower stalls required by 9.1.2 shall comply with Fig. 57(a) or (b). The shower stall in Fig. 35(b) will fit into the space required for a bathtub.*

Sheet (A-F7)

1) Several rooms provide 1' 4" clear space on the latch side / pull side of the doors.

**18" clear space is required on the pull side, latch side of doors.**

*4.13.6 Maneuvering Clearances at Doors. Minimum maneuvering clearances at doors that are not automatic or power-assisted shall be as shown in Fig. 25. The floor or ground area within the required clearances shall be level and clear.*

Sheet (A-F8)

1) Several rooms provide 1' 4" clear space on the latch side / pull side of the doors.

**18" clear space is required on the pull side, latch side of doors.**

*4.13.6 Maneuvering Clearances at Doors. Minimum maneuvering clearances at doors that are not automatic or power-assisted shall be as shown in Fig. 25. The floor or ground area within the required clearances shall be level and clear.*

Sheet (A-F10)

1) Men's and Women's toilet rooms (F-134 and F-135) do not provide the minimum clear space at the entrance and exit side of the doors.

**These are single user toilet rooms. Relocating the door and removing the privacy wall at the entrance would provide the required clear floor space. The installation of an accessible locking mechanism is required on the inside of the door.**

*4.13.6 Maneuvering Clearances at Doors. Minimum maneuvering clearances at doors that are not automatic or power-assisted shall be as shown in Fig. 25. The floor or ground area within the required clearances shall be level and clear.*

*A4.22.3 A privacy latch or other accessible means of ensuring privacy during use should be provided at the door.*

2) Men's and Women's toilet rooms (F-135, 136, 137 and 138) indicate the water closet in the accessible toilet stalls to be located opposite the stall doors.

**Either relocate the water closet to the opposite side of the stall or relocate the door to conform to the standard stall end of row design as depicted in ADAAG Figure (a-1).**

*See ADAAG Figure (a-1).*

Sheet (AE-11)

1) The clear floor space, required to accommodate a wheelchair at the lavatory (30" x 48"), is not provided in toilet rooms F-127 and F-128. The doors swing into the required clear space.

**Relocate the lavatory closer to the water closet.**

*4.22.2 Doors. All doors to accessible toilet rooms shall comply with 4.13. Doors shall not swing into the clear floor space required for any fixture.*

2) The shower, as depicted, provides the minimum required clearances at a single user transfer shower.

**Because this shower is to accommodate the Special Education Self Contained Classroom, consideration should be given to providing additional clearances to allow for the teacher to assist a student if necessary. A 30" x 60" shower is preferred.**

*A4.21.1 General. Shower stalls that are 36 in by 36 in (915 mm by 915 mm) wide provide additional safety to people who have difficulty maintaining balance because all grab bars and walls are within easy reach. Seated people use the walls of 36 in by 36 in (915 mm by 915 mm) showers for back support. Shower stalls that are 60 in (1525 mm) wide and have no curb may increase usability of a bathroom by wheelchair users because the shower area provides additional maneuvering space.*

*A4.23.3 Clear Floor Space. Figure A7 shows two possible configurations of a toilet room with a roll-in shower. The specific shower shown is designed to fit exactly within the dimensions of a standard bathtub. Since the shower does not have a lip, the floor space can be used for required maneuvering space. This would permit a toilet room to be smaller than would be permitted with a bathtub and still provide enough floor space to be considered accessible. This design can provide accessibility in facilities where space is at a premium (i.e., hotels and medical care facilities). The alternate roll-in shower (Fig. 57b) also provides sufficient room for the "T-turn" and does not require plumbing to be on more than one wall.*

Sheet (AI-4)

1) Boy's and Girl's toilet rooms (1109 and 1117) indicate the water closet in the accessible toilet stalls to be located opposite the stall doors.

**Either relocate the water closet to the opposite side of the stall or relocate the door to conform to the standard stall end of row design as depicted in ADAAG Figure (a-1).**

*See ADAAG Figure (a-1).*

Sheet (E-1)

1) Visual fire alarms are indicated to be provided. The location of the fire alarms is not indicated.

**Provide visual alarms in all rooms required to be accessible.**

*4.28.1 General. Alarm systems required to be accessible by 4.1 shall comply with 4.28. At a minimum, visual signal appliances shall be provided in buildings and facilities in each of the following areas: restrooms and any other general usage areas (e.g., meeting rooms), hallways, lobbies, and any other area for common use.*

2) Area of Rescue Assistance call station and Base station are indicated.

**If a supervised automatic sprinkler system or Horizontal exit is provided, then an Area of Fire Rescue Assistance is not required. If all required exits are accessible an Area of Fire Rescue Assistance is not required.**

*(9)* In buildings or facilities, or portions of buildings or facilities, required to be accessible, accessible means of egress shall be provided in the same number as required for exits by local building/life safety regulations. Where a required exit from an occupiable level above or below a level of accessible exit discharge is not accessible, an area of rescue assistance shall be provided on each such level (in a number equal to that of inaccessible required exits). Areas of rescue assistance shall comply with 4.3.11. A horizontal exit, meeting the requirements of local building/life safety regulations, shall satisfy the requirement for an area of rescue*

*EXCEPTION: Areas of rescue assistance are not required in buildings or facilities having a supervised automatic sprinkler system.*

*A4.1.3(9) Supervised automatic sprinkler systems have built in signals for monitoring features of the system such as the opening and closing of water control valves, the power supplies for needed pumps, water tank levels, and for indicating conditions that will impair the satisfactory operation of the sprinkler system. Because of these monitoring features, supervised automatic sprinkler systems have a high level of satisfactory performance and response to fire conditions.*

3) A permanently installed audible communications system is indicated.

**If a permanently installed audible communications system is provided, then either a permanently installed assistive listening system or outlets must be provided.**

*4.1.3 (19) (b) This paragraph applies to assembly areas where audible communications are integral to the use of the space (e.g., concert and lecture halls, playhouses and movie theaters, meeting rooms, etc.). Such assembly areas, if (1) they accommodate at least 50 persons, or if they have audio-amplification systems, and (2) they have fixed seating, shall have a permanently installed assistive listening system complying with 4.33. For other assembly areas, a permanently installed assistive listening system, or an adequate number of electrical outlets or other supplementary wiring necessary to support a portable assistive listening system shall be provided. The minimum number of receivers to be provided shall be equal to 4 percent of the total number of seats, but in no case less than two. Signage complying with applicable provisions of 4.30 shall be installed to notify patrons of the availability of a listening system.*

This is a preliminary document review. Construction design documents, including elevations and specifications, should be submitted for review to ensure that compliance with the applicable provisions has been met. Please contact me at 545-1141 should you have any questions or require additional information on this report.

Documents Reviewed by:

Bruce M. Clark
President

City and County of Honolulu
Department of Land Utilization
**Plans Review Branch**

Date: June 5, 1997

PLANS CHECKER: L. Ikehara
PROJECT: Kapolei Middle School
TAX MAP KEY: 9-1-16: 82
PLANS BY: Mitsunaga & Associates, Inc.
ZONING DISTRICT: AG-1 (To follow Kapolei Master Plan - A-1 and R-3.5)

97(020)

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DLU COMMENTS

Applicant's Response

**PRELIMINARY REVIEW:**

1. Sheet A-2: Site Plan should show:

   a) Property lines and lot dimensions per Subdivision 97(020).
   b) A-1 and R-3.5 zoning district boundary lines per Revised Kapolei Master Plan for Village 7 & 8, dated 12/19/95.
   c) Setback lines (10' front and side yards of A-2 portion; 30' front yard and 15' side/rear yards of R-3.5 portion).
   d) Parking space and aisle width dimensions.
   e) Loading spaces, with dimensions.

2. Landscaping:

   a) Parking lot trees must indicate caliper (min. 2").
   b) Sheets L2-01 and L2-02:
      - Require 1 minimum 2" caliper canopy tree for every 50 linear feet for area fronting the parking lot.
      - Require a continuous screening hedge, min. 36" ht., planted min. 18" o.c., for area fronting the parking lot.
   c) Sheet L2-05:
      - Require a continuous screening hedge, min. 36" ht., planted min. 18" o.c., for area fronting the parking lot.

3. Exterior Elevations:

   All exterior elevations must show existing and finished grades, and total height of structure, measured from ex. or fin. grade, whichever is lower.

4. Based on AutoCAD files submitted (see attached worksheets and drawings), a waiver must be obtained for the following:

   - Baseball backstops (not shown on plans) in required yard.
   - Buildings B, C, E & I to exceed height limits. (Possibly Bldg. A - depends on existing grade)
   - No. of Parking (183 required)
   - Compact parking spaces (If any are proposed).
   - Loading (if 4 spaces not provided).
   - Landscaping (If parking lot trees and screening hedges not provided.)

CITY AND COUNTY OF HONOLULU
DEPARTMENT OF LAND UTILIZATION
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

# DLU MASTER APPLICATION FORM

Additional data; drawing/plans, and fee requirements are listed on a separate sheet titled "Instructions for Filing." *PLEASE ASK FOR THESE INSTRUCTIONS.*

All specified materials and fees must accompany this form; incomplete applications could delay processing. You are encouraged to consult with department staff in completing the application. Please call the appropriate phone number given in the "Instructions for Filing" sheet.
*Please print legibly or type the required information.*

PERMIT REQUESTED (Check one or more as appropriate):

Clusters:
- ☐ Agricultural Cluster
- ☐ Cluster Housing
- ☐ Country Cluster

Conditional Use Permits:
- ☐ *Type 1* ☐ *Type 2*

- ☐ Existing Use
- ☐ Flood Hazard Variance
- ☐ Park Dedication
- ☐ Plan Review Use
- ☐ Planned Development-Housing
- ☐ Shoreline Setback Variance
- ☐ Site Plan Review
- ☐ Site Development Plan
- ☐ Special District: _____ (Indicate District)
- ☐ Special Management Area Permit/Assessment
- ☐ State Special Use Permit
- ☐ Subdivision
- ☐ Sunlight Reflection
- ☐ Variance from LUO Sec.(s): _____
- ☐ Waiver (public uses/utilities)
- ☐ Zero Lot Line
- ☐ Zone Change, From _____ to _____
- ☐ Zoning Adjustment, LUO Sec.(s): _____

**TAX MAP KEY(S):** _____
**LOT AREA:** _____
**ZONING DISTRICT:** _____ **STATE LAND USE DISTRICT:** _____

**STREET ADDRESS/LOCATION OF PROPERTY:** _____

**RECORDED FEE OWNER:**
Name _____
Mailing Address _____
Phone Number _____
Signature _____

**APPLICANT:**
Name _____
Mailing Address _____
Phone Number _____
Signature _____

**PRESENT USE OF PROPERTY/BUILDING:** _____

**AUTHORIZED AGENT/CONTACT PERSON:**
Name _____
Mailing Address _____
Phone Number _____
Signature _____

**PROJECT NAME** (if any): _____

**PROJECT PROPOSAL** (Briefly describe the proposed activity or project): _____

**FOR DEPARTMENT USE ONLY**
Submitted Fee Amount: $ _____ **FILE NO.** _____
Date Application Accepted: _____ Accepted By: _____
Date of Public Hearing: _____
- ☐ Approved
- ☐ Approved with conditions indicated below.
- ☐ Denied for reason(s) given below.
- ☐ Exempt project.

*THIS COPY, WHEN SIGNED BELOW, IS NOTIFICATION OF THE ACTION TAKEN.*

_____ _____ _____
Signature Title Date

The above approval does not constitute approval of any other required permits, such as building permits.

DLU-188-86 (REV. 3/87)

City and County of Honolulu
Department of Land Utilization

# Instructions for Filing a WAIVER OF REQUIREMENTS Land Use Ordinance Section 21-3.150

A waiver from the strict application of the development or design standards may be granted by the Director of Land Utilization for the following reasons:

1. Public uses and utility installations;

2. To permit the creation of lots designated for landscaping and open space purposes which do not meet minimum lot area and/or dimensions; and

3. To permit replacement of improvements on private property when the improvements are rendered nonconforming through the exercise of government's power of eminent domain.

The granting of the waiver shall not, under the circumstances and conditions applied in the particular case, adversely affect the health or safety of persons, and shall not be materially detrimental to the public welfare or injurious to nearby property improvements. The burden of proof in showing the reasonableness of the proposed waiver shall be on the applicant seeking it.

This provision shall not be applicable to uses which fall under Section 21-3.160 Plan Review Uses.

With your completed application form, please submit:

1. <u>Written Information</u>:

   a. Indicate the section(s) of the Land Use Ordinance which you request to be waived.

   b. Justification statements addressing the requirements of the zoning code. Include alternatives considered, and why they are not feasible.

   c. Copies of other permits (e.g., Special Management Area or Special District Area permits, etc.), variances and/or waivers, and violation notices if they are relevant to the request.

   d. If applicable, documentation to show that the requirements of Chapter 343, HRS (Environmental Impact Statements), and Chapter 33, ROH (Special Management Area Permits) have been met.

e. If applicable, documentation (e.g., copies of approved building permits and plans) to authenticate the nonconformity of existing structures/buildings.

f. Any other information which you feel supports your request, such as, letter(s) from abutting neighbors, and neighborhood and/or design advisory boards and commissions, indicating that they have reviewed the plans for the project, and have no objections to the proposal.

2. Drawings/Plans (1 set of plans, drawn to accurate scale, including the following information):

a. A site plan, showing:

(1) Property lines, lot dimensions and area, easements, and stream, road-widening, and other setback lines, including shoreline and shoreline setback lines; and

(2) Location and dimensions of all existing and proposed structures (including all accessory uses and structures), landscaped areas, roadways, parking and loading/service areas, and building setbacks from property lines.

b. A landscape plan, showing all existing and proposed landscaping, including open spaces, hedges, planting areas, and trees.

c. Exterior building elevations, showing all existing and proposed structures (including all accessory uses and structures), permitted maximum height plane(s), and required yard and height setbacks.

d. If applicable, floor plans, showing the location and dimensions of all existing and proposed uses.

All plans submitted with the application must be prepared by or under the supervision of a LICENSED ARCHITECT OR LAND SURVEYOR, and certified (stamped, signed and dated) by the licensed professional.

4. Photographic Documentation:

a. Exterior elevations of the existing buildings/structures.

b. Photographs showing the physical characteristics of the site and the surrounding neighborhood.

All photographs shall be dated and accompanied by location map, showing the direction/orientation of the photographs.

5. Fee: None

6. Additional Required Information:

   a. RECORDED FEE OWNER is the person or corporate entity that owns the land in fee simple. **The Recorded Fee Owner must sign the application or a letter authorizing the application.**

   b. APPLICANT is the public agency, person, or corporate entity proposing the action. It may be the Recorded Fee Owner or a lessee. If a person or corporate entity is applying for a waiver to meet public agency requirements, the public agency would be the applicant and it must sign the application.

   c. AUTHORIZED AGENT is the person who is processing the application. This is the person the Department will contact for additional information. It may be the same person as the Recorded Fee Owner, or the Applicant. The Authorized Agent may also be the project architect or contractor. For government agencies, the Authorized Agent is the contact person for the project.

   d. To avoid errors or delays, supply all the required information. Fill out all blanks on the application form clearly, concisely, and completely.

   e. For information on how to complete your application, please call the Zoning Adjustments Branch at 523-4135.

   f. If your project/proposal requires other Department of Land Utilization (DLU) permits, indicate which additional permits are being applied for on the Master Application Form, and submit separate plans or other application materials, including filing fees, as necessary.

BENJAMIN J. CAYETANO
GOVERNOR

HERMAN M. AIZAWA, Ph.D.
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF BUSINESS SERVICES

May 1, 1997

Mr. Randall Fujiki
Director and Building Superintendent
City & County of Honolulu
Building Department
650 S. King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

SUBJECT: Kapolei Middle School
Tax Map Key: 9-1-16:82 & 83

We respectfully request a preliminary review of the Design Development plans for the Kapolei Middle School. Mr. John Kurio of your department has already met twice with our Architects, Mitsunaga & Associates, Inc. and many of his previous comments have been incorporated into the final construction documents.

Submitted are two sets of plans as requested. Thank you for your assistance.

Sincerely,

Lester H. T. Chuck
Facilities Director

LHTC:jml

Enclosure

**Mitsunaga & Associates, Inc.**
*Architecture • Planning • Engineering*
747 AMANA ST., SUITE 216 • HONOLULU, HAWAII 96814
TELEPHONE (808) 945-7882 • FAX (808) 946-2563

**MINUTES OF MEETING**
KAPOLEI MIDDLE SCHOOL, 4/25/97 - 9:00 A.M.

Attendees: Steven D. Wong - Mitsunaga & Associates, Inc.
Bill Chang - Mitsunaga & Associates, Inc.
Jason Sato - Mitsunaga & Associates, Inc.
John Kurio - Building Department

Item:

The meeting was to discuss the Design Development plans. The Building Department had the following initial comments:

1. Kurio had comments to the previous 1/24/97 memo. The corrections were made to this memo and shall be added to the file.

2. There may be mixed occupancies in Bldg. C to allow higher areas allowed. Cafeteria area may be A-2.1, kitchen area may be B-2 and music/choral areas may be E-1.

3. Fire sprinkling may be allowed to substitute for lower type of construction. At Bldg. C, if the areas are below allowed, fire sprinkling will allow the building to go from Type V-1 Hr. to Type V-N.

4. When calculating mixed occupancies, the Architect shall use the formula in section 505 (c). The ratio shall be less than 1.0.

5. The kitchen at the Bldg. C does not need a separation between it and the dining area.

6. The ramp from the corridor to the stage is a "dead end" corridor since it exceeds 20 ft. Modifications to the plans will be required to allow direct exit access out.

7. Doors from unoccupied space in the corridor cannot exceed 7" into the required exit width of the corridor.

8. The area next to the Student Store shall be treated as an exit balcony and therefore will not have to be protected.

9. The widow and door at the Custodian Rm. will not have to be protected.

# Memorandum

Mitsunaga & Associates, Inc. 747 Amana Street, Suite 216, Honolulu, HI 96814

Date: 9 May 1997
Project: Kapolei Middle School

To: Steve Wong
From: Bill Chang

Subject: Building Dept and DLU Plan Check

Steve-

1) Second set of Pre-Design Submittal drawings was delivered to Jon Kurio yesterday 5/8/97.

2) Received your fax re chemical list. Will be delivering list to Kurio this morning. Trans. ltr attached for files.

3) A set of Pre-Design Submittal drawings with cover letter was logged into DLU yesterday 5/8/97. Plan reviewer will be Harry Robins who does all public schools. Said he cannot start until end of next week. Wants floor plans and site plan portions only on diskette, AutoCAD R 12 or 13. Please ask Jason or Janna to transmit to Mr. Robins next week.

Approach him on waivers. We can start application after we get his comments back.

See you at 12:30!

**Mitsunaga & Associates, Inc.**
*Architecture • Planning • Engineering*
747 AMANA ST., SUITE 216 • HONOLULU, HAWAII 96814
TELEPHONE (808) 945-7882 • FAX (808) 946-2563

**MINUTES OF MEETING**
KAPOLEI MIDDLE SCHOOL, 4/25/97 - 9:00 A.M.

Attendees:

Steven D. Wong - Mitsunaga & Associates, Inc.
Bill Chang - Mitsunaga & Associates, Inc.
Jason Sato - Mitsunaga & Associates, Inc.
John Kurio - Building Department

Item:

The meeting was to discuss the Design Development plans. The Building Department had the following initial comments:

1. Kurio had comments to the previous 1/24/97 memo. The corrections were made to this memo and shall be added to the file.

2. There may be mixed occupancies in Bldg. C to allow higher areas allowed. Cafeteria area may be A-2.1, kitchen area may be B-2 and music/choral areas may be E-1.

3. Fire sprinkling may be allowed to substitute for lower type of construction. At Bldg. C, if the areas are below allowed, fire sprinkling will allow the building to go from Type V-1 Hr. to Type V-N.

4. When calculating mixed occupancies, the Architect shall use the formula in section 505 (c). The ratio shall be less than 1.0.

5. The kitchen at the Bldg. C does not need a separation between it and the dining area.

6. The ramp from the corridor to the stage is a "dead end" corridor since it exceeds 20 ft. Modifications to the plans will be required to allow direct exit access out.

7. Doors from unoccupied space in the corridor cannot exceed 7" into the required exit width of the corridor.

8. The area next to the Student Store shall be treated as an exit balcony and therefore will not have to be protected.

9. The widow and door at the Custodian Rm. will not have to be protected.

# *Mitsunaga & Associates, Inc.*

8 May 1997
Department of Land Utilization
City & County of Honolulu
650 South King Street, 7th Floor
Honolulu, HI 96813

Attention: Jan Sullivan, Director of Department of Land Utilization
Project: Kapolei Middle School
Subject: Request for Preliminary Plan Check Review

Gentlemen and Ladies:

Kapolei Middle School is a new public intermediate school scheduled to start construction in December 1997. On behalf of Makai Village Partnership who is the private developer funding the development of this project for the State of Hawaii, we are submitting the attached preliminary design drawings for a preliminary plan check review by your Department. A copy of the State's Department of Education correspondence to the Building Department requesting the same is attached for your information.

You will find all land use code related data and design tabulations on sheet T-2. As with all State school facilities, this subject project seeks the usual blanket waiver from LUO parking and building heights allowances. However, you will find the project also seeks a waiver to encroach into the 30 feet front yard along Kapolei Parkway with its baseball field's backstop. Please see sheets C-3 and A-2. Due to very tight play field site conditions and without the backstop fencing encroachment into the front yard setback, the soccer field will need to overlap onto both baseball play fields.

It is our understanding from discussions with your staff that public school projects are no longer required Site Plan Review processing. We were also informed that DLU may be instating conditional use permit requirements to address those traditionally neighborhood vs.school conflict concerns such as provision for adequate parking and noise control i.e.yard setbacks and landscape buffer treatments. We kindly ask for your assistance to inform us of any such impending requirements as they will impact our project permit approvals.

Should you have any questions as you review the proposed design or require additional information, please do not hesitate to call me at 945-7882.

Respectfully submitted,

Steven D. Wong, AIA

Attachments:
1 set Kapolei Middle School' Pre-Design Submittal, dated 4/10/97

| Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 1 |
|---|---|
| To Steve | From Bill |
| Co. | Co. |
| Dept. | Phone # |
| Fax # | |

*Mi_unagu & Associates, I··c.*

27 January 1997
Department of Land Utilization
City & County of Honolulu
650 South King Street, 7th Floor
Honolulu, HI 96813

DRAFT

Attention: Mr. Patrick Onishi, Director
Project: Kapolei Middle School
Subject: Request for Preliminary Plan Check

Gentlemen and Ladies:

We are submitting the attached project exhibits for a preliminary plan check by your Department.

In in order to facilitate your review, we have included some pertinent background information and a list of specific questions on LUO requirements we wish your verification on. Your comments/ assistance in attentioning any other zoning concerns that will also be highly appreciated.

BACKGROUND INFORMATION

1) A State of Hawaii Project
The subject project is a new public school to be built by a private developer Makai Village Partners for the State of Hawaii. The project has been issued a DAGS project number of ____. Building permit application is projected for August 1997.

2) Dual Zoning Districts
Presently, the project site consists of portions of zoning lots TMK: 9-1-16: 82 and 83. Lot 82 is zoned A-1 and 83 is zoned R-3.5. The subject project site will be subdivided from lots 82 and 83 into a 20.001 acre zoning lot as described in the attached exhibit-___ with the A-1 and R 3.5 zoning district boundaries remaining as is.

INQUIRY ITEMS

1) FAR Calculation
The proposed project density of approximately 150,000 sf is way below the allowable density. However, we wish to verify that our application of your FAR formula for lots in two zoning districts as follows:
A= .9 FAR, B= .5 FAR (assumes a .5 FAR equivalency with a 50% lot coverage limit) and C= 270,159.12 sf

$$FAR = (.9 - .5) \times \frac{270{,}159.12}{871{,}243.56} + .5 = .62$$

Allowable density = .62 x 871,243.56= 543,685.43 sf

2) Zoning Waivers
Waiver applications from the following LUO requirements will likely be submitted. Are there any foreseeable concerns regarding with the items listed and are there other items that you see requiring waiver consideration?

a) Heights
Although the school is entirely single story, two buildings may be exceeding their respective zoning height limits of 25 ft (R-3.5) and 30 ft (A-1). The Cultural Center/ Cafeteria which lies in the R-3.5 district will be approximately 36 ft. high and the Media/ Library which lies in the A-1 district will be approximately 32 ft.

b) Parking
Parking provisions will likely meet only DOE requirements of 85 spaces.

3) Site Plan Review
It is our understanding that public school projects are no longer required a Site Plan Review processing; however subject to a possible caveat that DLU is considering instatement of a conditional use permit requirement to address those traditionally neighborhood vs.school concerns such as adequate parking, yard setbacks and landscape buffer treatments. What is the current status of such requirement occurring?

Should you have any questions or require additional information, please do not hesitate to call me at 945-7882.

Respectfully submitted,

Bill Chang, AIA

JASON

# LETTER OF TRANSMITTAL

COMMISSION ON PERSONS
WITH DISABILITIES
919 Ala Moana Boulevard,
Suite 101
Honolulu, Hawaii 96814

(808) 586-8121
Fax # 586-8129

| DATE | JOB |
|---|---|
| May 20, 1997 | 97-149 |
| ATTENTION: Steve Wong | |
| RE: Kapolei Intermediate School | |

To:
Mitsunaga & Associates, Inc.
747 Amana Street, Ste. 216
Honolulu, Hawaii 96814

Ph. 808-945-7882 Fax. 808-9462563

WE ARE SENDING YOU (x) Attached ( ) Under separate cover via _____ the following items:

| COPIES | Date | NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 5/20/97 | | Technical Assistance Review |
| 1 | 4/10/97 | | Blueprints - 132 Sheets |
| | | | |
| | | | |
| | | | |

THESE ARE TRANSMITTED as checked below:

(x) For your use
( ) As requested
(x) For review and comment
( ) No Application
(x) Returned for corrections

REMARKS:

SIGNED _____
Gary L. Batcheller
Facility Access Technician

CC: HRS 103.50 Coordinator
File

BENJAMIN J. CAYETANO
GOVERNOR

HERMAN M. AIZAWA, Ph.D.
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF BUSINESS SERVICES

May 1, 1997

Mr. Randall Fujiki
Director and Building Superintendent
City & County of Honolulu
Building Department
650 S. King Street
Honolulu, Hawaii 96813

Dear Mr. Fujiki:

SUBJECT: Kapolei Middle School
Tax Map Key: 9-1-16:82 & 83

We respectfully request a preliminary review of the Design Development plans for the Kapolei Middle School. Mr. John Kurio of your department has already met twice with our Architects, Mitsunaga & Associates, Inc. and many of his previous comments have been incorporated into the final construction documents.

Submitted are two sets of plans as requested. Thank you for your assistance.

Sincerely,

Lester H. T. Chuck
Facilities Director

LHTC:jmi

Enclosure

# Appendix H

## Comments and Response Letters on Draft EA

(P)1535.7

AUG 14 1997

Mr. Steven Wong
Mitsunaga and Associates, Inc.
747 Amana Street, Suite 216
Honolulu, Hawaii 96814

Dear Mr. Wong:

Subject: Kapolei Middle School
Kapolei, Oahu, Hawaii
Draft Environmental Assessment

Thank you for the opportunity to review the subject document. We have no comments to offer.

If there are any questions, please have your staff contact Mr. Ronald Ching of the Planning Branch at 586-0490.

GORDON MATSUOKA
State Public Works Engineer

RC:jy
c: HFDC
DOE
OEQC

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

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



August 7, 1997

Mr. Roy S. Oshiro, Executive Director
Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawai'i 96813

Dear Mr. Oshiro:

Thank you for your June 24, 1997, letter submitting a draft environmental assessment (DEA) for the Kapolei Middle School, TMK: 9-1-16: por. 82 & 83. The Office of Environmental Quality Control published notice of availability of this DEA in the July 8, 1997, edition of the *Environmental Notice*. We submit for your response the following comments on the DEA.

1. **ALTERNATE ENERGY EFFICIENCY AND BUILDING DESIGN.** Please discuss in the final environmental assessment what criteria will be used to design alternate energy efficient buildings (such as the use of prevailing local wind circulation patterns as opposed to air conditioning, etc.)

Please include this letter and your response to it in the final environmental assessment for this project. If there are any questions, please call Mr. Leslie Segundo, Environmental Health Specialist, at 586-4185. Thank you for the opportunity to comment.

Sincerely,

for GARY GILL
Director

c: Mr. Steven Wong, Mitsunaga and Associates, Inc.
Sandy Pfund, HFDC

| Post-it® Fax Note 7671 | Date 8/11/97 | # of pages ▶ 1 |
|---|---|---|
| To MPAC | From Steve Wong | |
| Co./Dept. Ross | Co. | |

**Mitsunaga & Associates, Inc.**
*Architecture • Planning • Engineering*
747 AMANA ST., SUITE 216 • HONOLULU, HAWAII 96814
TELEPHONE (808) 945-7882 • FAX (808) 946-2563

August 18, 1997

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu, HI 96813

Dear Mr. Gill:

Thank you for your comments regarding Alternate Energy Efficiency and Building Design. Your concerns have been addressed in the making of the Kapolei Middle School (Design Charette) Final Report (March 1997) by Mitsunaga and Associates, Inc. (pp. 20-21) and also in Section C, *Proposed Action* of the Final Environmental Assessment (FEA) describing the innovative design Charette process. Also, your comment letter and their response will be included in the (FEA).

Sincerely,

Steve Wong

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730



JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 11, 1997

TSP97-00622

Ms. Sandy Pfund
Housing Finance and Development Corporation
State of Hawaii
677 Queen Street, Suite 120
Honolulu, Hawaii 96813

Dear Ms. Pfund:

Subject: Kapolei Middle School

We reviewed the draft environmental assessment (EA) for the subject project and have the following comments to offer:

1. It is our understanding that in addition to the traffic studies for the entire Villages of Kapolei project that are discussed in the draft EA, a traffic assessment has been prepared that reevaluated the impact of the proposed middle school. The results of this study should be discussed in the appropriate sections of the draft EA.

2. The service access to the Cultural Center should be eliminated and connected to the same driveway used for the staff and visitor parking area. A clear area should be provided in the design plans for a connector roadway joining the two parking areas, if it is determined to be required for traffic circulation around the school site.

3. Landscaping and structures at the remaining driveways and the street intersection should be located and designed to provide adequate vehicular sight to pedestrians and other vehicles. These sight lines should be maintained throughout the duration of the intended use of the site.

4. Driveway grades should not exceed five percent for a minimum distance of 35 feet from the curb prolongation.

5. Fencing should be erected around the entire perimeter of the site, with the exception of driveway locations, to discourage unintended pedestrian crossings and uncontrolled dropoffs of students by parents.

6. The driveway access on Kapolei Parkway for the staff parking and bus loading areas should remain as a one-way circulation and limited to right turns only, as described in the traffic assessment prepared for the subject project.

7. School administrators should take an active role in directing parents and students to use designated internal pickup and drop-off areas to minimize these activities on public streets.

8. Construction plans for all work on proposed City streets should be submitted to this department for review and approval, prior to applying for building permits. Traffic control plans, as required, should be submitted for review and approval prior to applying for street usage permits.

9. The subject of this department's August 8, 1996 concurrence letter contained in Appendix E was the impacts of the deletion of Connector Road "B" and not the traffic generated by the middle school. This appendix should be amended and include the traffic assessment prepared for the school.

Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation System Planning Division at 527-6976.

Sincerely,

CHERYL D. SOON
Director

cc: OEQC
Mitsunaga & Associates, Inc.

**Mitsunaga & Associates, Inc.**
*Architecture • Planning • Engineering*
747 AMANA ST., SUITE 216 • HONOLULU, HAWAII 96814
TELEPHONE (808) 945-7882 • FAX (808) 946-2563

August 23, 1997

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Subject: ***Kapolei Middle School***
***Draft Environmental Assessment (EA)***

Thank you for your comments on the ***Kapolei Middle School Draft EA***. Your concerns are addressed in the attached letter from Jimmy Yamamoto of R.M. Towill Corporation and Lester Chuck of the DOE and in the ***Traffic Assessment for Kapolei Middle School*** by Julian Ng, (May 1997). Your letter and our responses including the letters of J. Yamamoto and L. Chuck will be included in the ***Kapolei Middle School Final Assessment (FEA)*** as part of Appendix H, *Comments and Response Letters on the Draft EA*. Julian Ng's Traffic Assessment will also be included in the FEA in Appendix E, *Traffic Studies by Julian Ng, Inc.*

Sincerely,

Steve Wong

R. M. TOWILL CORPORATION
420 Waiakamilo Road, Suite 411
Honolulu, Hawaii 96817 (808) 842-1133
Facsimile No: (808) 842-1937

TO: Mitsunaga & Associates
ATTENTION: Steve Wong
FACSIMILE NO.: 946-2563
NO. OF PAGES: 1
(INCLUDING THIS SHEET)

DATE: 8/22/97
FROM: Jimmy Yamamoto
PROJECT: Kapolei Middle School
RMTC JOB NO.:

*Please contact our office should any problems occur with transmission or receipt of facsimile.*

*MESSAGE:*

The service access to the Cultural Center has been revised to come off of the internal roadway. This service access can be used to connect the two parking lots together if it is required for traffic circulation.

Construction plans will be submitted to the Department of Transportation Services for review and approval. The plans will include traffic control plans. The Kapolei Parkway is still owned by the State Housing Finance and Development Corporation. The work to be done will be on a future City Street. It is our intention to have the plans approved by the Department of Transportation Services.

Kapolei Parkway is not in use at this time and will not be until after the school is built. This should make traffic control during construction easier.

Please call me at 842-1133

cc. Steve Thomas
587-0600

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

HERMAN M. AIZAWA, Ph.D.
SUPERINTENDENT

OFFICE OF BUSINESS SERVICES



July 8, 1997

Mr. Steve Wong, Project Architect
Mitsunaga and Associates Inc.
747 Amana Street, Room 216
Honolulu, Hawaii 96814

Dear Mr. Wong:

SUBJECT: Kapolei Middle School
Traffic Concerns

After review of the concerns and requests of DTS, the Department of Education (DOE) has the following responses:

1. Separation of Passenger Loading Areas - The DOE requests this design feature in order to provide a safe environment for students, staff, and visitors to the campus. Based on experiences from campuses statewide, the DOE has found that it is operationally easier to provide a safe and secure environment for the students and staff by having two separate passenger loading areas instead of one.

2. The DOE understands the reasons and rationale given during the charette for not providing a break in the median of the parkway in front of the school. Safety and traffic flow concerns were explained as the justifications for not having a break in the median.

   Since DTS has the ultimate responsibility for proper traffic design of the parkway, the DOE sees no need to address the second portion of item two.

3. The DOE prefers not to field telephone calls in regards to traffic, since this not our field of expertise. The DOE can assist in explaining how and why the original traffic design for the school was developed.

The DOE supports DTS's position that through traffic flow and safety are a primary concern and circulation patterns that impede smooth traffic flow should be avoided where possible.

The DOE provides perimeter fencing for all of its new school projects for student safety and campus security.

The DOE agrees to providing the service driveway to the Cultural Center off the internal circulation road.

4. The DOE recommends that the original design be honored and implemented. If traffic concerns arise after implementation, then the DOE requests that DTS review the situation and make the appropriate recommendations for improvement/correction at that time.

Should you have any questions, please call Mr. Theron Nichols at 733-4863.

Sincerely,

Lester H. T. Chuck, Director
Facilities and Support Services Branch

LHTC:jml

cc: K. Inouye, Makai Village

BENJAMIN J. CAYETANO
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS DIVISION
400 RODGERS BOULEVARD, SUITE 700
HONOLULU, HAWAII 96819-1880

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS

GLENN M. OKIMOTO
BRIAN K. MINAAI

IN REPLY REFER TO:

AIR-EP
97.1273

August 13, 1997

Ms. Sandy Pfund
Housing Finance and Development Corporation
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Dear Ms. Pfund:

Subject: Draft Environmental Assessment
Kapolei Middle School

In response to your Draft Environmental Assessment for the construction of the Kapolei Middle School, the aircraft noise levels generated by Kalaeloa Airport do not have an impact on the Kapolei Middle School, as it is outside the 55 DNL noise contour on the Noise Exposure Map for Kalaeloa Airport. However, be aware of single event noise that may be generated from the airport.

Please contact Mr. Stephen Takashima of my staff at 838-8810 if you have any questions.

Sincerely,

JERRY M. MATSUDA, P.E.
Airports Administrator