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March 6, 1987

JOHN WAIHEE  
GOVERNOR

Honorable John Lewin  
Director  
Department of Health  
1250 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Dr. Lewin:

Based upon the recommendation of your office, I am pleased to accept the Final Environmental Impact Statement for Waianae III Elementary School as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes. This environmental impact statement will be a useful tool in the process of deciding whether the action described therein should be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under applicable laws, and does not constitute an endorsement of the proposed action.

When the decision is made regarding the proposed action itself, I expect the proposing agency to weigh carefully whether the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement, and, together with the comments made by reviewers, provide a useful analysis to the proposed action.

With kindest regards,

Sincerely,

JOHN WAIHEE

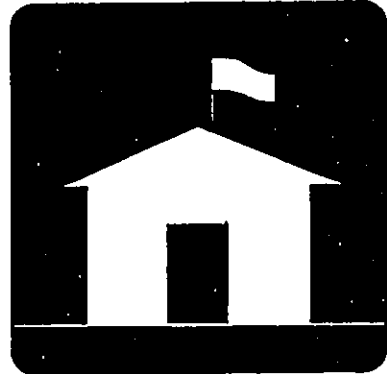
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STATE OF HAWAII  
DEPARTMENT OF HEALTH

MAR 11 1987

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**WAIANAE III  
ELEMENTARY  
SCHOOL**



**ENVIRONMENTAL  
IMPACT  
STATEMENT**

**DHM inc.**

OA  
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ENVIRONMENTAL IMPACT STATEMENT  
FOR THE  
NEW WAIANAEE III ELEMENTARY SCHOOL  
WAIANAEE, OAHU, HAWAII

This environmental document is prepared pursuant  
to Chapter 343, HRS

Proposing Agency

Department of Accounting and General Services  
State of Hawaii

Accepting Authority:

Governor, State of Hawaii

Responsible  
Official:

  
\_\_\_\_\_  
RUSSEL S. NAGATA, COMPTROLLER

2/6/87  
DATE

Prepared by

DHM, Inc.

**ENVIRONMENTAL IMPACT STATEMENT**  
**"WAIANA E III" ELEMENTARY SCHOOL**

**Prepared for the**  
**Department of Accounting and General Services**  
**State of Hawaii**

**Prepared by**  
**DHM inc.**

**January 1987**

TABLE OF CONTENTS

	<u>Page</u>
I. SUMMARY . . . . .	1
II. STATEMENT OF PURPOSE AND NEED FOR ACTION . . . . .	2
III. PROJECT DESCRIPTION AND SITE SELECTION . . . . .	3
IV. ALTERNATIVES TO THE PROPOSED ACTION . . . . .	8
V. ENVIRONMENTAL SETTING . . . . .	10
VI. RELATIONSHIP OF PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AFFECTED AREA . . . . .	12
VII. POTENTIAL IMPACTS AND PROPOSED MITIGATION . . . . .	14
VIII. RELATIONSHIP BETWEEN SHORT-TERM USES OF HUMANITY'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY . . . . .	24
IX. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES . . . . .	25
X. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED .	26
XI. SUMMARY OF UNRESOLVED ISSUES . . . . .	27
XII. CONSULTATION WITH AGENCIES, ORGANIZATIONS AND INDIVIDUALS . . . . .	28
APPENDIX A - COMMENTS AND RESPONSES DURING CONSULTATION PHASE	
APPENDIX B - COMMENTS AND RESPONSES DURING REVIEW PERIOD	
APPENDIX C - SITE SELECTION STUDY	

EXHIBITS

	<u>Page</u>
1 LOCATION MAP . . . . .	4
2 PROPOSED WAIANAE III ELEMENTARY SCHOOL SERVICE AREA . .	5
3 ALTERNATIVE SITES . . . . .	7
4 ZONING MAP . . . . .	11
5 EVALUATION TABLE . . . . .	17
6 PHYSICAL, SOCIAL AND COST CRITERIA SUMMARY EVALUATION .	18

## I. SUMMARY

The Department of Education proposes to construct a new elementary school within the proposed service area in the Waianae/Makaha community to alleviate the overcrowded conditions at the existing schools. The Site Selection Study, which is appended to this EIS, discusses the need for the school, the project objectives and description, the broadscale analysis of the service area used to identify six suitable alternative sites for the school, and the detailed site evaluation of the six alternative sites.

For ease of comparison, the Site Selection Study concludes with summary tables displaying the various ratings of the six sites based on the detailed site evaluation criteria. No preferred site or sites are identified in the Site Selection Study. Hierarchical ranking of the sites is the responsibility of the decision makers as it requires placing value judgments on the three categories of evaluation criteria: physical, social, and cost. Therefore, the consultant's responsibility was limited to the identification and evaluation of potential sites.

At the same time, this EIS discusses the potential environmental effects of the six alternative sites identified in the Site Selection Study, rather than the one site which will be ultimately selected. Many of the potentially adverse impacts of the proposed school were minimized or avoided through the site selection process. The unavoidable environmental effects of the proposed school development are not considered to be major and will be mitigated by enforcement of adequate control measures.

## II. STATEMENT OF PURPOSE AND NEED FOR ACTION

Three elementary schools service the Waianae and Makaha residents: Makaha Elementary, Waianae Elementary and Leihoku Elementary. The enrollment at these schools is currently greater than or close to each school's capacity, and projected enrollment figures for each are much larger than capacity. A more detailed description of the need for the proposed action can be found in Chapter I of the Site Selection Study, Appendix B of this EIS.

The purpose of the proposed Waianae III Elementary School is to reduce the design enrollments in the Waianae/Makaha area to less than 1,000 students per elementary school. This would create smaller, more manageable elementary schools which would be educationally and socially beneficial to the students.



### III. PROJECT DESCRIPTION AND SITE SELECTION

A new elementary school, Waianae III, is proposed for the Waianae/Makaha area on the leeward side of Oahu (Exhibit 1). The Department of Education (DOE) has established the service area for the proposed school as shown on Exhibit 2. The service area delineates the geographic boundaries for students who will be attending the new school and defines the limits within which the school site must be located.

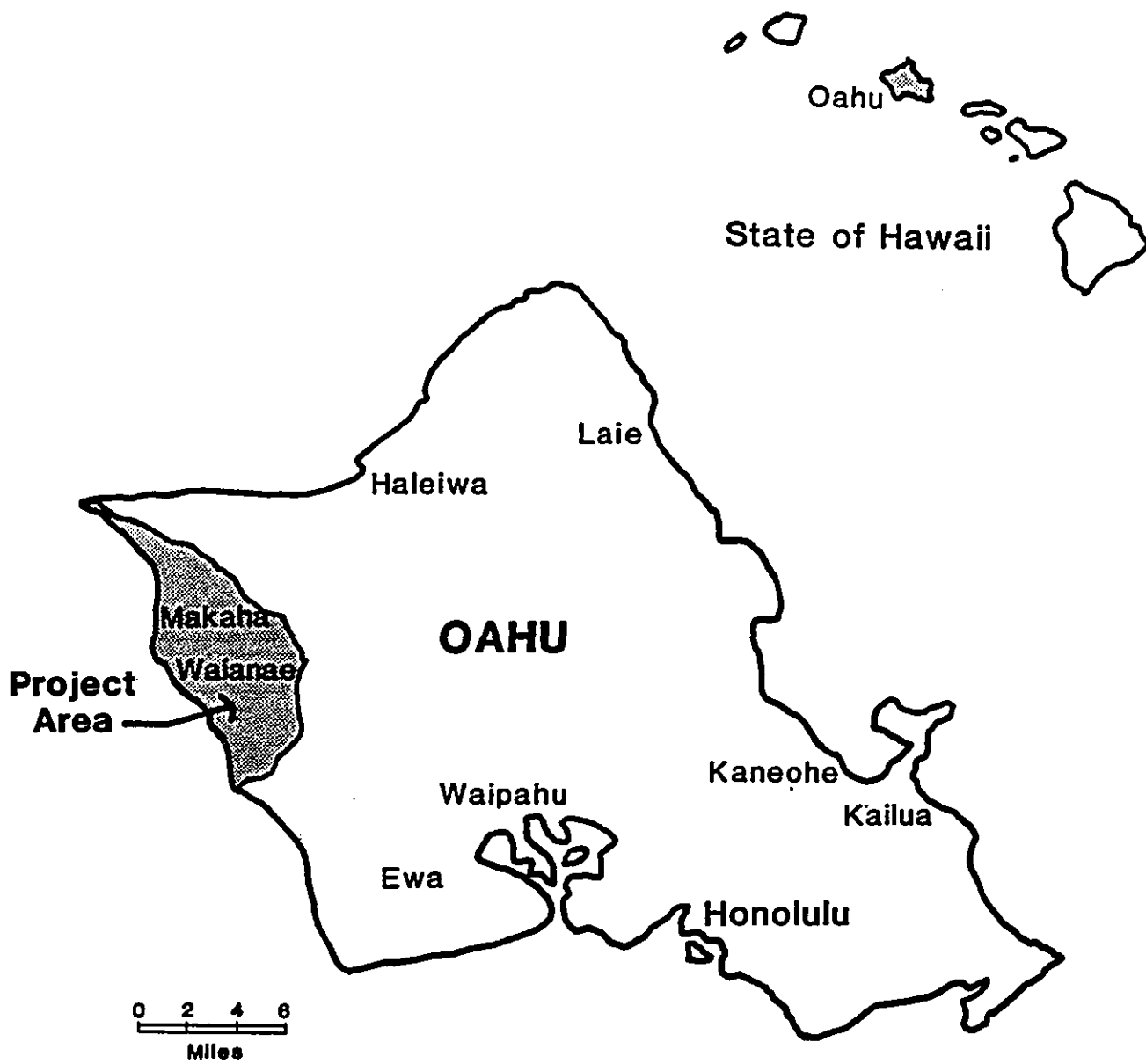
Waianae III Elementary is scheduled to open in September 1989 with a projected initial enrollment of 350 students in grades kindergarten through 6. The design enrollment, used in master planning for the school's permanent facilities, is 850 students. The Master Plan should include provisions to accommodate a peak enrollment of 1,000 students.

Waianae III, to be located on a 6-8 acre site, will consist of 36 permanent classrooms, 8 portables, administration office, library, serving kitchen/dining room, parking and playcourt. The cost for land acquisition, master planning, and design and construction of the above facilities is estimated at \$8,873,000 (1984 prices). Funds for the land acquisition, master plan, and design and construction of the first increment of Waianae III Elementary School were appropriated under Act 300, Session Laws of Hawaii 1985.

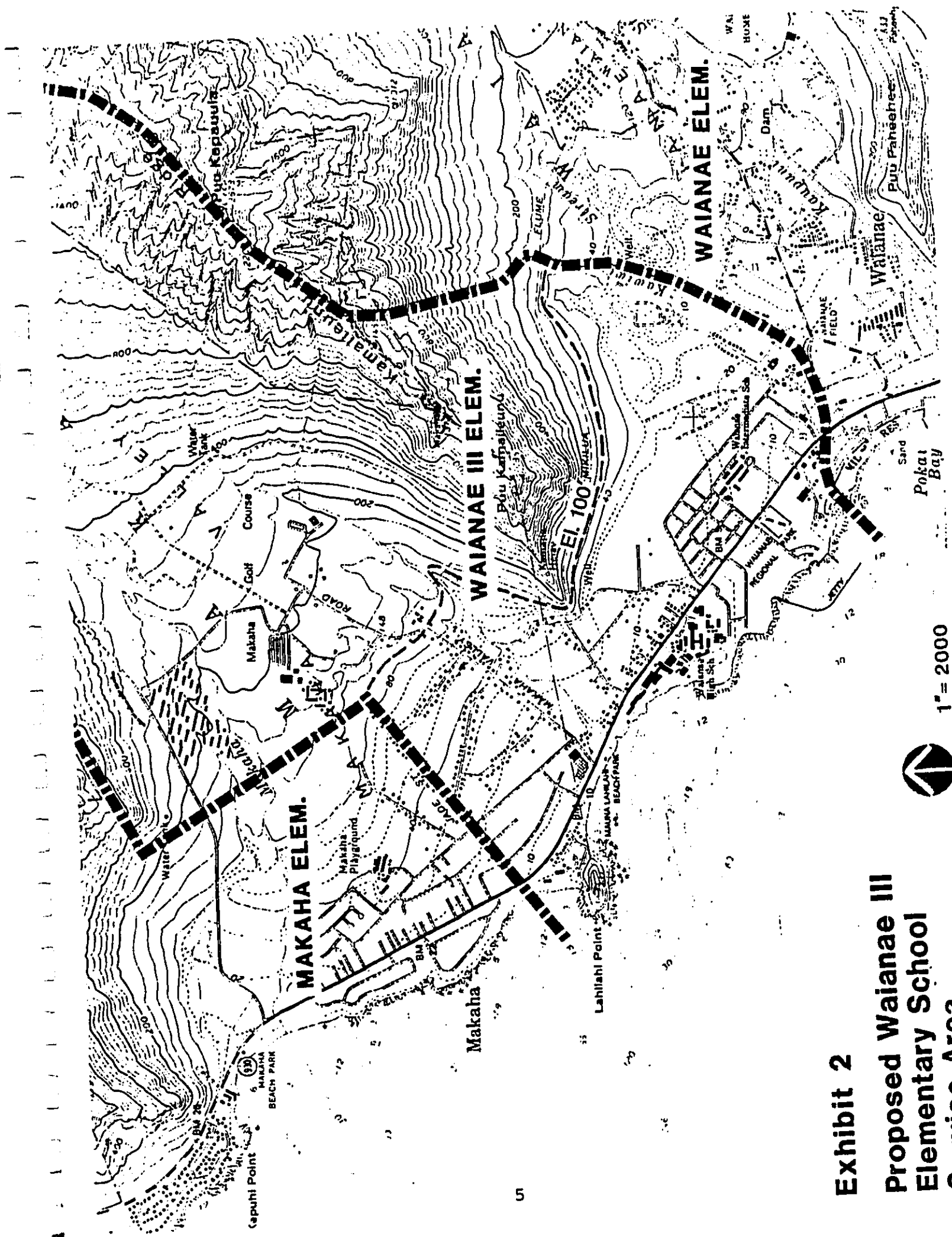
The school will be built in increments dependent upon enrollment growth. The first increment will include 16 classrooms, some of which will serve as administration offices, cafeteria etc. until these permanent facilities are built, and will hold 350 students.

The present schedule to select a school site and construct the first increment of development is as follows:

Jan 1987	Complete Site Selection Study & EIS
Feb 1987	Obtain Governor's approval
Aug 1987	Complete Master Plan
Aug 1988	Complete 1st Increment Design
Aug 1989	Complete 1st Increment Construction



**Exhibit 1 Location Map**



**Exhibit 2**  
**Proposed Waianae III**  
**Elementary School**  
**Service Area**

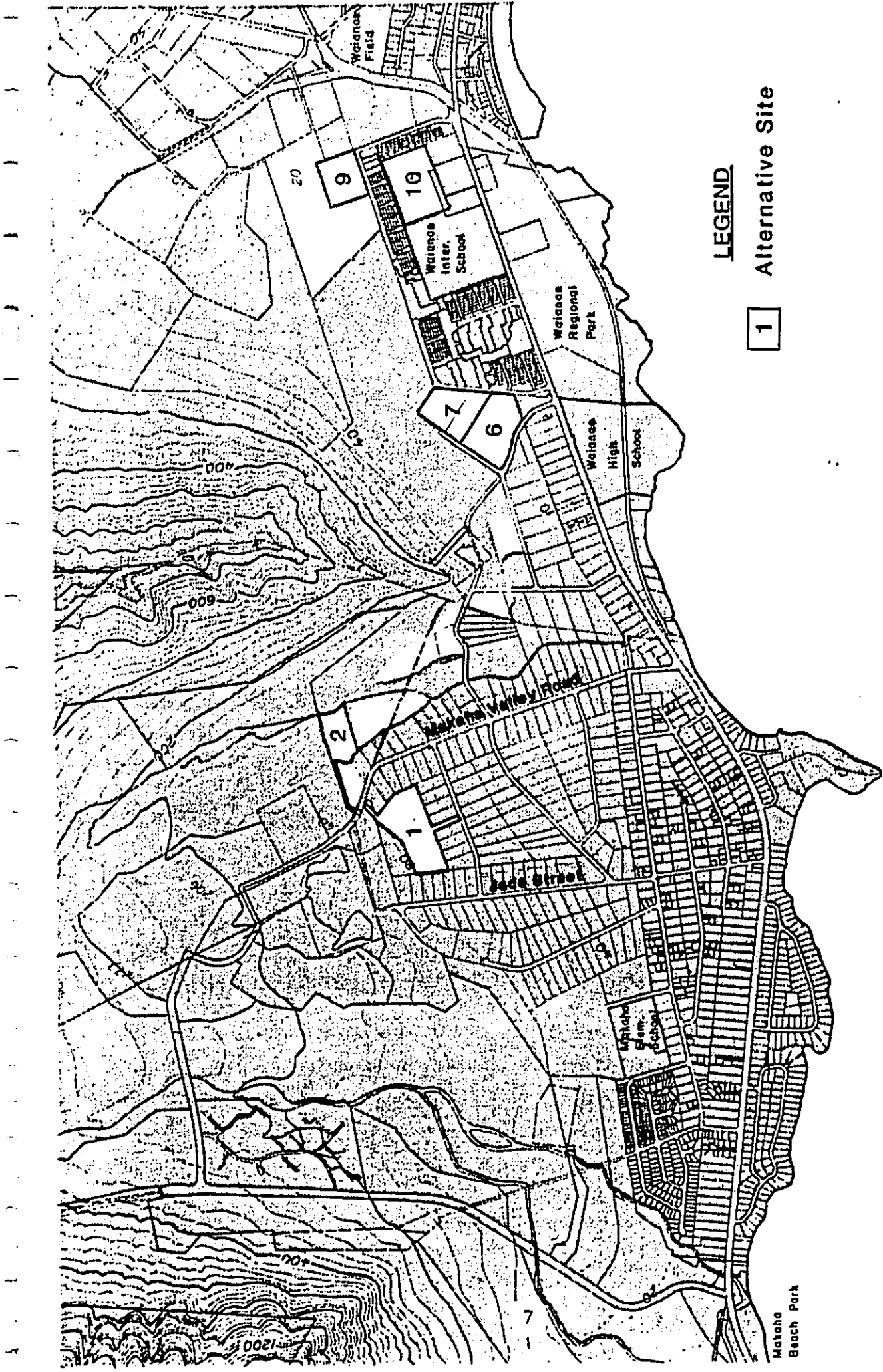


1" = 2000'

The Site Selection Study describes in detail the process used to identify and evaluate appropriate alternative sites for the proposed Waianae III Elementary School. Lands suitable for the proposed use were first identified through "broadscale analysis", described in Chapter III. Six suitable "alternative" sites were identified and are shown here on Exhibit 3.<sup>1</sup> Each of the six alternative sites were then evaluated against established physical, social and cost evaluation criteria, and the results were tabulated and summarized (see Chapters IV and V, Site Selection Study). A general description of the project's technical, economic, social and environmental characteristics for each alternative site is also included in the Site Selection Study.

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<sup>1</sup>The "Consultation Phase" draft of this EIS and appended Site Selection Study, dated January 1986, identified ten alternative sites. However, in response to review comments, Sites 3, 4, 5 and 8 were eliminated from consideration due to the location of a historic site, revised SMA boundary, and a wetland. For consistency, this report uses the original site numbers.



**Exhibit 3**  
**Alternative Sites**

#### IV. ALTERNATIVES TO THE PROPOSED ACTION

The Department of Education considered three alternatives to the proposed action as a means of accommodating the projected enrollment growth in the Waianae/Makaha area:

1. Adjustment in Existing Service Areas

Projections indicate each school will be operating above capacity by 1989, using all suitable classrooms. Therefore, the adjustment of service area boundaries between the Waianae/Makaha area schools will not alleviate overcrowded conditions resulting from projected population growth.

2. Bussing Students to Schools Outside the Area

To accommodate the projected enrollment growth, 500 to 950 students would need to be bussed to other schools based on design enrollment figures. The closest schools with significant surplus classrooms available to handle these students are in the Pearl City area, a distance of about 25 miles from Makaha Elementary. This alternative is quite costly because of the increased bussing required as well as undesirable due to the potential social impact of bussing children to schools so far away.

3. Increasing Capacity and Size of Existing Schools

Increasing the size of Makaha, Waianae, and Leihoku to enrollments of 1,200, 1,250 and 1,160, respectively, with peak enrollments around 1,300, would require additional classroom facilities at each school. The needs at Makaha Elementary would cost \$2,250,000 (1984 prices). However, there is not enough available space on campus to locate additional facilities.

Additional facilities at Waianae Elementary necessary to meet design enrollment would cost \$2,530,000 (1984 prices), and at Leihoku Elementary, \$2,220,000.

In addition to the costs involved, increasing the size of the existing schools would create a serious negative atmosphere for student achievement. A recent study in the Leeward District, completed in 1984 by the DOE Leeward District Office, indicated that students in smaller schools perform better on uniform tests. The Department of Education feels that Waianae Schools must be held to a level below 1,000 students due to problems evidenced by the socio-economic conditions and low test scores, as described in the "Present Conditions" section of the Site Selection Study.

Upon review of all the available data and consideration of the above alternatives, the Department of Education recommended the establishment of a new elementary school.

## V. ENVIRONMENTAL SETTING

The school service area shown on Exhibit 2 extends from Jade Street to Kawiwi and Kapuni Streams, and from the shoreline to the mountains, including parts of Makaha and Waianae towns and the upper portion of Makaha Valley. The area is generally rural in character, consisting primarily of residential development on both urban and agricultural zoned lands, substandard roadways, minimum public water service, and limited public wastewater service.

Approximately 1/3 of the service area is zoned for agricultural use, 1/3 for urban use, and the remainder consists of preservation, and a small area of resort-zoned lands according to the City zoning designations, (Exhibit 4).

The urban lands located along Farrington Highway, the major roadway through the area, are characterized by residential development, and some commercial use, public-facilities and parks. Residential and resort zoned lands are also located in upper Makaha Valley along Makaha Valley Road, Kili Drive and Mauna Olu Street. However, with the exception of Makaha Resort and Makaha Valley Plantations townhouse development, these lands are presently undeveloped.

Most of the agricultural zoned lands in the area are subdivided into 2 acre lots consisting primarily of single-family residences and some vegetable, flower, and poultry farms. The larger agricultural-zoned lots are essentially vacant.

The preservation lands consist of the steep mountain ridges and stream beds, and the existing golf course.

Physical characteristics of the service area, such as slope, soil, rainfall, vegetation, roadways and utilities, etc., are fairly consistent throughout, and are described for each alternative site in Chapter V of the Site Selection Study.

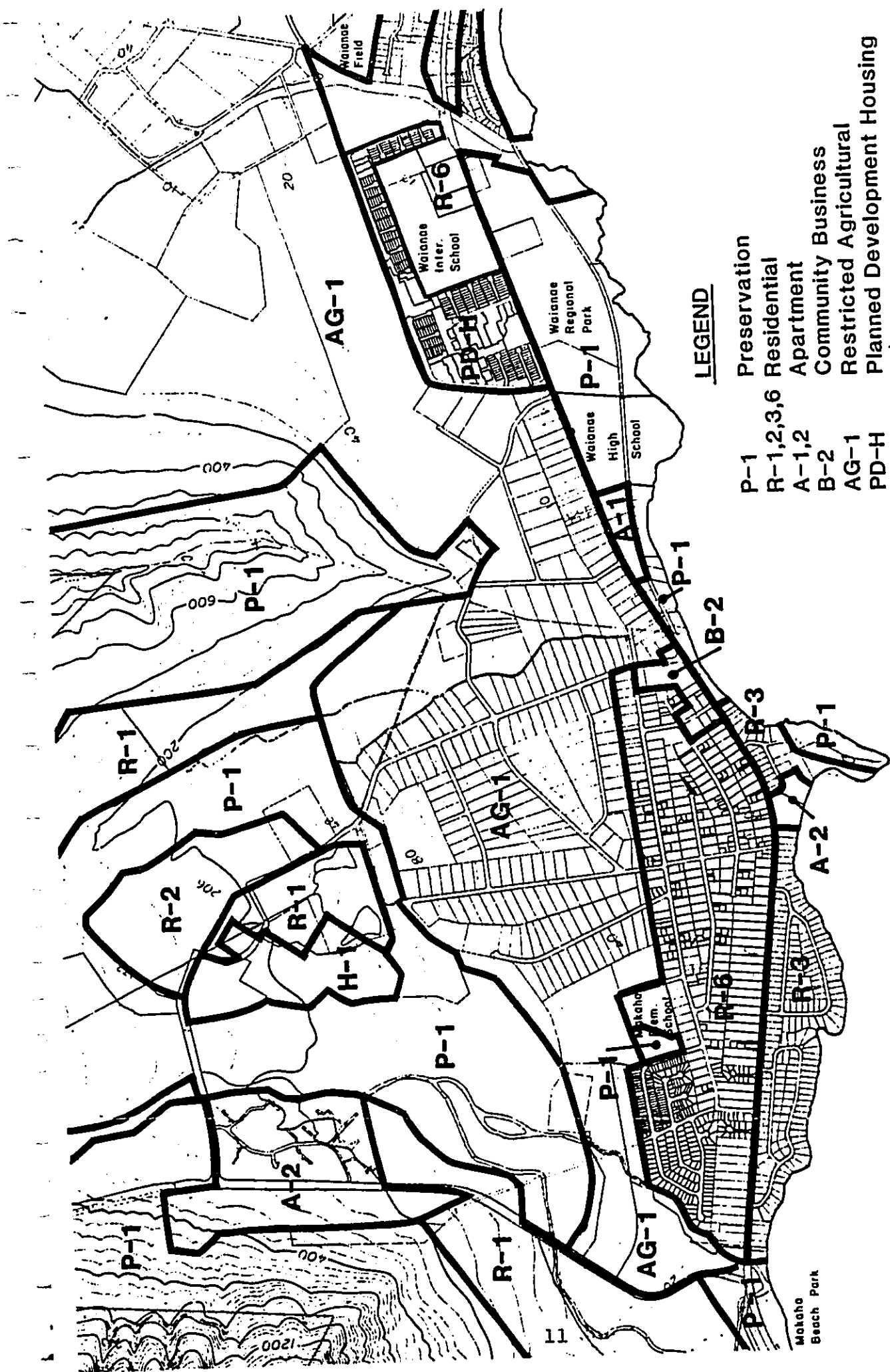
The 1980 population of the service area was around 5,300<sup>2</sup>, and a large percent was of Hawaiian, Filipino and Caucasian ethnicity. The mean income for the Waianae Coast in 1979 dollars was \$15,596, compared with the mean income of \$21,077 for all of Oahu.<sup>3</sup>

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<sup>2</sup>U. S. Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing.

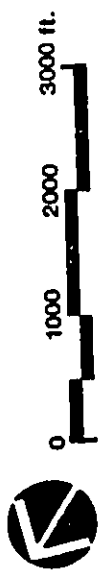
<sup>3</sup>Department of Planning and Economic Development, The State of Hawaii Data Book, 1984.





**LEGEND**

- P-1 Preservation
- R-1,2,3,6 Residential
- A-1,2 Apartment
- B-2 Community Business
- AG-1 Restricted Agricultural
- PD-H Planned Development Housing



**Exhibit 4  
Zoning Map**

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

Land Use Regulations

The alternative sites being considered for the new school were carefully selected with respect to existing land use regulations to assure their compatibility with the environment. In the broadscale analysis phase of site selection, all lands with regulatory restrictions for a school use were eliminated from consideration (see Chapter III, Site Selection Study). As a result, all six alternative sites are within the State Urban District. Sites 1, 2, 6, 7 and 9 are designated "Agricultural" by the City, and Site 10 is designated "Public Facilities". All sites are outside the Special Management Area and do not contain wetlands.

However, only Site 10 is presently shown on the City Development Plan Public Facilities (DP/PF) Map for the Waianae District and is therefore consistent with the policies expressed in the DP/PF Map for the area. Should any site except Site 10 be selected, an amendment will be required for conformity with the DP/PF Map. All standard procedures will be followed in applying for this amendment after the school site is selected.

Hawaii State Plan

The proposed project complies with the following objectives of the adopted Hawaii State Plan:

- o Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs. (The new school will reduce overcrowding and the use of substandard facilities in existing elementary schools in the area, and will increase accessibility to the schools by reducing bussing.)
- o Provide necessary public goods and services not assumed by the private sector. (The project provides an additional facility for public education in a generally low-income community where private educational facilities are few, and unaffordable by the majority.)
- o Ensure that adequate support services and facilities are provided to accommodate the desired distribution of future growth throughout the State. (The need for the new school is based on projections of future growth in the project area.)

- o Assure availability of agriculturally suitable lands with adequate water to accommodate present and future needs. (The alternative school sites are located on lands with very low agricultural productivity ratings according to the University of Hawaii Urban Land Study Bureau.)

State Functional Plan

The proposed project is part of the Department of Education's attempt (State Education Functional Plan) to improve the quality of education in Hawaii and to provide equal educational opportunities for all students.

List of Necessary Approvals

<u>Type of Approval<sup>4</sup></u>	<u>Approval Agency</u>
Environmental Impact Statement	Governor of Hawaii
Site Selection	Governor of Hawaii
Development Plan Public Facilities Map Amendment	C & C Department of General Planning
Land Acquisition Authority	Governor of Hawaii
Land Acquisition	State Board of Land & Natural Resources
Drainage Easement	Hawaii Housing Authority
Sewer Easement	Hawaii Housing Authority
Tenant Relocation	State Department of Social Services and Housing
School Master Plan	State Department of Education
Construction Plans	State Department of Education
Building and Grading Permits	State Department of Health
	State Department of Labor
	State Fire Marshal
	C & C Building Department
	C & C Department of Public Works
	C & C Board of Water Supply

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<sup>4</sup>Depending on site selected.

## VII. POTENTIAL IMPACTS AND PROPOSED MITIGATION

The beneficial as well as adverse effects of the proposed elementary school are considered in the analysis of potential impacts to present a balanced view of the project. Mitigation of potential environmental, social and economic impacts (short and long term) has been incorporated into the planning process for the proposed school from the initial stages, as documented in the attached Site Selection Study.

Site selection for the proposed school took into account a wide range of social, economic, physical, environmental, and land use factors in order to avoid potential adverse impacts. The effects of construction and operation of the proposed school were considered during both the broadscale analysis and site evaluation phases of site selection. As a result of this planning approach, the probability of significant adverse effects from the proposed project is minimized.

Lands on which the project would create adverse effects to the environment were eliminated from consideration for the new school site by the broadscale analysis phase (see Chapter III of the Site Selection Study).

Lands with steep slopes were eliminated to minimize the amount of physical alteration required to accommodate a school facility, and minimize the potential for erosion both during construction and in the long term.

Flood prone areas such as tsunami inundation zones and the 100 year flood plain were also eliminated to avoid potential adverse impacts to floodways, sensitive coastal zones, and stream beds which often contain unique plant and animal habitats.

The Waianae District, a site listed on the Hawaii Register and National Register of Historic Places, was eliminated due to its potential historic/archaeologic research value.

Federal, State and City land use regulations, designed to protect special resource areas and prime agricultural lands, were respected and adhered to. Areas with land use designations not permitting schools were eliminated, as were shoreline areas within the Special Management Area and designated wetland areas. Although permits may be obtained to locate a school within restricted land use areas, the Department of Education purposely did not consider this option in order to minimize both the physical environmental impacts of the new school, as well as the potential social impacts. An urban-type development located outside the State Urban District may encourage "spot zoning" and may stimulate growth. The proposed Waianae III Elementary School is intended to relieve the overcrowdedness of the

existing schools and to accommodate the projected gradual population increase in the area. It is not intended to be a primary factor encouraging new growth.

As mentioned in Section VI, lands not in conformance with the Development Plan Public Facilities Map would require an amendment to the map. This land use requirement was not considered as a criterion in the broadscale analysis since nearly all lands in the area would require this amendment if a new school were constructed on them.

Furthermore, the potential social impact resulting from the displacement of families, businesses or farms was minimized in the broadscale analysis phase by eliminating presently developed lands<sup>5</sup> from consideration. Developed lands tend to have smaller parcels, thus requiring acquisition of more lots and potentially greater chances of displacing the existing tenants.

In summary, the broadscale analysis was a mitigation approach used which resulted in the identification of six alternative sites for the school on lands which will be minimally affected by the proposed development.

The second phase of the site selection process was also a mitigation method. It involved the development of site evaluation criteria against which each alternative site was evaluated to determine the degree of potential impacts of each site.

The site evaluation criteria (Chapter VI of the Site Selection Study) establish optimum site conditions and characteristics important for a school facility and for reducing potential impacts of the proposed project. Examples of site evaluation criteria include:

- o Roadways must have adequate width, clearance, paving, shoulders, and drainage to accommodate school busses and increased traffic, to provide sufficient parking, loading and turn-around, and to ensure vehicular and pedestrian safety.
- o Utility systems must be adequate to service a school and ensure the health and safety of the users.

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<sup>5</sup>"Presently developed lands" include urban-zoned lands and lots zoned Ag-1 which are smaller than the required 2 acre minimum lot size.

- o A selected site should require minimum displacement of any families, businesses or farms and minimum disruption to the existing community setting.
- o A proposed school site should not be located near an institution (hospital, rest homes, etc.) where occupants may be disturbed by the noise and activity of a school.

Each criterion includes a rating scale of "good", "fair" and "poor" which is used to identify how well a particular site fulfills the criterion. The summary evaluation table, Exhibit 5, indicates which sites best meet the criteria, and upon which the new school development will have the least impact to the environment.

In addition, since the new school will be funded by the State of Hawaii, aspects of the project's economic impact are directly related to the costs of development and operation. Therefore, the comparative costs were calculated for each site in the Site Selection Study and shown in Exhibit 6.

The site selection process results in a low probability of significant adverse effects from the proposed project and assists the decision maker in selecting a site which will, to a large extent, minimize or avoid potential social, economic and environmental impacts of the proposed school.

Nevertheless, there are some unavoidable potential impacts of the proposed action which may occur during construction and/or operation of the school. Potential impacts and appropriate mitigation measures are discussed below.

EXHIBIT 5  
EVALUATION TABLE

CRITERIA	ALTERNATIVE SITES					
	1	2	6	7	9	10
<b><u>Physical Characteristics</u></b>						
Size	-	+	-	+	+	-
Shape	-	+	+	+	+	+
Slope	+	-	+	+	+	+
Soils	o	o	o	o	o	o
Aesthetics	+	+	o	o	o	o
Roadway	o	o	+	+	+	+
Water	-	-	+	+	+	o
Wastewater	o	-	+	+	+	o
Drainage	-	-	-	-	o	-
Pedestrian Accessibility	-	-	+	+	o	-
Vehicle Accessibility	-	-	o	o	-	-
Bus Service	-	-	o	o	o	+
Traffic Safety	+	+	-	-	-	o
Pedestrian Safety	o	o	o	+	+	+
Highway Noise	+	+	-	+	+	-
Industrial/Agricultural Nuisances	+	+	+	+	-	o
<hr/>						
TOTAL + (Good)	5	6	7	10	8	5
TOTAL o (Fair)	4	3	5	4	5	6
TOTAL - (Poor)	7	7	4	2	3	5
 <b><u>Social Characteristics</u></b>						
Existing Use/Displacement	+	+	-	-	+	+
Landownership	-	-	o	-	o	+
Proximity to Students	-	-	o	o	-	-
Visibility/Identity	-	-	+	+	o	-
Interference with Institutions	+	+	+	+	+	-
<hr/>						
TOTAL + (Good)	2	2	2	2	2	2
TOTAL o (Fair)	0	0	2	1	2	0
TOTAL - (Poor)	3	3	1	2	1	3

**EXHIBIT 6**  
**PHYSICAL, SOCIAL AND COST CRITERIA**  
**SUMMARY EVALUATION**

<u>EVALUATION CRITERIA</u>	<u>SITE 1</u>	<u>SITE 2</u>	<u>SITE 6</u>	<u>SITE 7</u>	<u>SITE 9</u>	<u>SITE 10</u>
<b>A. <u>PHYSICAL AND SOCIAL CRITERIA</u></b>						
<b>PHYSICAL CRITERIA</b>						
Total + (Good)	5	6	7	10	8	6
o (Fair)	4	3	5	4	5	5
- (Poor)	7	7	4	2	3	5
<b>SOCIAL CRITERIA</b>						
Total + (Good)	2	2	2	2	2	2
o (Fair)	0	0	2	1	2	0
- (Poor)	3	3	1	2	1	3
<b>B. <u>COST CRITERIA</u></b>						
<b>LAND ACQUISITION</b>						
Land	\$ 365,982	\$ 235,212	\$ 217,934	\$ 226,215	\$ 188,056	\$ 260,216
Improvements	-0-	6,344	123,061	25,967	-0-	-0-
Relocation	-0-	-0-	9,000	9,000	-0-	-0-
<b>SUBTOTAL</b>	<b>\$ 365,982</b>	<b>\$ 241,556</b>	<b>\$ 349,995</b>	<b>\$ 261,182</b>	<b>\$ 188,056</b>	<b>\$ 260,216</b>
<b>ON-SITE DEVELOPMENT</b>						
Clearing	\$ 41,840	\$ 36,000	\$ 41,558	\$ 33,660	\$ 20,000	\$ 24,375
Grading	-0-	24,000	-0-	-0-	-0-	-0-
Water	46,200	81,900	-0-	-0-	-0-	-0-
Wastewater	24,500	45,500	-0-	-0-	-0-	-0-
<b>SUBTOTAL</b>	<b>\$ 112,540</b>	<b>\$ 187,400</b>	<b>\$ 41,558</b>	<b>\$ 33,660</b>	<b>\$ 20,000</b>	<b>\$ 24,375</b>
<b>OFF-SITE DEVELOPMENT</b>						
Water	\$ 496,000	\$ 516,000	\$ -0-	\$ -0-	\$ -0-	\$ 47,200
Wastewater	70,000	231,000	-0-	-0-	-0-	41,300
Roads	4,450,000	3,916,000	979,000	-0-	-0-	-0-
Walkway	-0-	-0-	-0-	27,000	36,000	18,600
<b>SUBTOTAL</b>	<b>\$5,016,000</b>	<b>\$4,663,000</b>	<b>\$ 979,000</b>	<b>\$ 27,000</b>	<b>\$ 36,000</b>	<b>\$ 107,100</b>
<b>BUS SUBSIDY</b>	<b>\$1,807,869</b>	<b>\$2,410,492</b>	<b>\$1,046,661</b>	<b>\$1,363,831</b>	<b>\$1,903,020</b>	<b>\$1,617,567</b>
<b>CAMPUS AIDE</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>\$ 349,461</b>
<b>TOTAL COST</b>	<b>\$7,302,391</b>	<b>\$7,502,448</b>	<b>\$2,417,214</b>	<b>\$1,685,673</b>	<b>\$2,147,076</b>	<b>\$2,358,719</b>



POTENTIAL IMPACTS DURING THE CONSTRUCTION PHASE (SHORT-TERM)

1. Soil Erosion

There is some potential for soil erosion by rain and wind during the construction phase in areas which are cleared for school buildings, parking areas and support facilities, but long-term effects of soil erosion are expected to be minimal. Soil erosion was a factor considered in both the broadscale analysis and site evaluation phases of site selection, so areas of steep slope have generally been avoided. Of the six alternative sites, Site 2 has the greatest potential for soil erosion as it has the steepest slope.

Soil erosion will be minimized and limited to the construction phase through the following actions:

- o Detailed field surveys will be conducted by geological and soils engineers to determine optimum areas for development.
- o Areas where vegetation was removed will be re-planted through appropriate landscaping.
- o Areas with slopes greater than 12%, where erosion hazard potential is highest (portions of Site 2), will not be developed or disturbed during construction.

2. Noise and Dust

Noise and dust during construction of the proposed school will be unavoidable, however, it will be controlled by adhering to the government regulations and will be temporary and intermittent. These effects will occur on the school site as well as on roadways requiring utility and road improvements.

Noise levels from heavy equipment and construction activities will adhere to the required State Department of Health and OSHA standards. Dust pollution will be controlled by complying with the Department of Health regulations. These controls consist of wetting down loose soil areas with water, oil or suitable chemicals; good housekeeping on the job site; and paving or landscaping bare soil areas as quickly as possible.

3. History and Archaeology

Although none of the alternative school sites are known to contain historic buildings or archaeological/historic features, Sites 6 and 7 are located adjacent to the "Waianae District" (Site 1181) as designated by the Historic Sites Office of Department of Land and Natural Resources. The "Waianae District", which surrounds the existing Kamaile heiau, habitation cave and complex located on Kamaileunu Ridge, is felt to be valuable in terms of its research potential. As a result of this district and the general high probability of historic sites in the Waianae area, the Historic Sites Office of DLNR will be consulted once a school site is selected.

4. Employment

The proposed elementary school will generate short-term employment opportunities necessary to design and construct the facilities.

POTENTIAL IMPACTS DURING THE OPERATION PHASE (LONG-TERM)

Socio-Economic Impacts

1. Education

The proposed elementary school will provide educational benefits to the Waianae/Makaha community by reducing the overcrowding and substandard facilities at existing schools, and providing a convenient location for students in the service area.

2. Displacement

The likelihood of the proposed project requiring displacement of existing families, farms or businesses was reduced during the site selection phase. However Sites 6 and 7 would require the displacement of tenants and landowners living on the sites. Anyone displaced by the project will receive assistance to minimize the hardships of moving including financial relocation assistance, and moving expense reimbursement and priority consideration for subsidized housing available. All relocation requirements of Chapter 111, Hawaii Revised Statutes (HRS), Assistance to Displaced Persons, will be complied with.

3. Population Growth

A new elementary school may not directly stimulate population growth, however, it may have some impact on growth. It may indirectly accelerate some growth by providing upgraded roads and utilities in the area (especially water and sewer) which would be able to handle development that cannot currently be handled by existing systems.

4. Employment

The new elementary school will provide employment opportunities to operate and maintain the school, including administration, faculty, service and maintenance personnel.

5. Property Tax

Acquisition of any alternative site, except Site 10 which is owned by the State of Hawaii, will remove land from the tax base. This will result in the loss of City property tax revenues. However, the amount is not significant, as the 1985 tax rate for agricultural lands is \$9 per \$1000 assessed value, and \$6.75 per \$1000 for residential lands. For example, the 1985 assessed land value for Alternative Site 1 is \$365,982. Since the site is in the agricultural land class, the annual tax revenue of this site is  $366 \times \$9 = \$3294$ . Relative to the project cost (approximately \$8.9 million) and social benefits of a new school, the loss of tax revenue from the selected school site can be considered not significant.

Environmental Impacts

1. Traffic

The school development will inevitably increase vehicular traffic on the access roads surrounding the alternative site selected. For this reason, the accessibility of each site and the adequacy of roads serving each site were carefully evaluated in the Site Selection Study. The major access road(s) will be improved as necessary to provide adequate capacity for the school traffic. The on-site school development will also provide sufficient parking, loading and turnaround areas to ensure vehicular and pedestrian safety. Appropriate traffic controls such as signs, crosswalks, and barriers will be incorporated in the design of the school.

At the same time, the proposed project will decrease the traffic around the other elementary schools that would have served this area, if the new school were not constructed.

2. Noise

The school will be designed to comply with the Department of Health regulations for Community Noise Control on Oahu. Facility equipment such as air conditioning units, kitchen exhausts, etc. will be operated and maintained to meet allowable levels.

3. Vegetation

The existing vegetation of the alternative sites is similar, consisting primarily of an overgrowth of Kiawe trees, Haole Koa and scrub brush. Alternative Sites 1 and 2 have denser vegetation, while Sites 6, 7, 9 and 10 are more open. Based on the comparable vegetation of the surrounding areas, it is unlikely that any rare or valuable plants will be destroyed by the school development. Site 2 has the greatest potential for valuable plants, particularly on the steeper slopes, and along the stream. These areas, however, would not be disturbed by the development.

The loss of vegetation by the clearing and grading of the selected site will be offset by grassing and landscaping of the school campus. Existing trees which are desirable will be saved and incorporated in the landscape plans where possible or transplanted on site.

4. Wildlife

The wildlife in the area consists of introduced species which are common throughout the Waianae area: rats, mice, mongoose and insects. Some common birds such as mockingbird, dove, cardinal, Japanese white eye, golden plover, and pueo also inhabit the area.

The development of the school site will temporarily remove about 6-8 acres of feeding and breeding grounds until the school landscape is planted and matured. However, this impact is negligible. No endangered species of wildlife would be affected by the proposed school.

5. Aesthetics

The natural aesthetic features of each site were evaluated in the Site Selection Study relative to the potential of creating an aesthetically pleasing campus. In addition, the design of school buildings will be coordinated with the character of the community. As a result, no adverse impacts are anticipated on scenic vistas or natural beauty of the project location.

6. Fire Protection

Each alternative site was evaluated for its ability to provide fire protection based on adequate water lines and fire hydrant location in the Site Selection Study. The school campus will be provided with adequate fire protection in terms of resistive construction, fire alarm systems, fire extinguishers and fire hydrants according to the Honolulu Board of Water Supply standards and all applicable fire and building codes. The alternative sites will also be served by the Waianae Fire Station, located on Farrington Highway across from Waianae Intermediate School, with secondary protection provided by the Nanakuli and Waipahu Fire Stations, 6.5 and 17.5 miles away respectively.

7. Agricultural Nuisances

Site 9 was identified in the Site Selection Study as being adjacent to an existing chicken farm, and thereby received a "poor" rating under the "industrial/agricultural nuisances" criteria. The odors emanating from the farm are very likely to be uncomfortable and disrupting to school activities, particularly since Site 9 is downwind of the farm. There is no effective mitigation measure against this problem, for even if the school is equipped with air conditioning, the odor comes in through opened doors. Also many school and recreation activities occur outside on the school grounds.

The Department of Education has had negative experience with school sites adjacent to such nuisances, and because of the unmitigable problems involved, Site 9 is not an acceptable alternative site for the new Waianae III school, and will not be considered for selection.

**VIII. RELATIONSHIP BETWEEN SHORT-TERM USES OF HUMANITY'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY**

The potential short-term effects of soil erosion and noise and dust pollution from the school's development on the human environment are expected to be minimal in comparison to the short and long-term educational benefits to be gained by the community. The proposed school is necessary to implement the State's goal to provide quality and equal educational opportunities to her people.

The proposed action will, however, result in a commitment of land for a long-term period which will foreclose the future land use options of the site, such as recreational use, open space, agricultural use, and possibly residential use.

**IX. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES**

Construction of the proposed project will require an irreversible commitment of capital, labor, and construction materials. The development, once constructed, will remain there for the life of the project. Labor expended for the development is not retrievable, however, labor will be compensated during various stages of the project primarily by the State.

While it is conceivable that the school facility could be removed or relocated and the land restored to its initial state or some other use, the State intends to acquire a site in anticipation that the affected land area will be committed to a school use for an indefinite period.

**X. ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED**

Construction of the project will create localized temporary adverse impacts such as soil erosion and noise and dust pollution, however, these effects will be strictly controlled by enforcing applicable pollution control measures. Other long-term adverse effects would be the traffic generated by the school and the displacement of residents from some alternative sites.



**XI. SUMMARY OF UNRESOLVED ISSUES**

The potential impacts of the proposed action are generally known and appropriate mitigation measures have been developed to address these impacts. There are no significant unresolved issues.

## **XII. CONSULTATION WITH AGENCIES, ORGANIZATIONS AND INDIVIDUALS**

EIS Preparation Notice was published in the OEQC Bulletin of December 8, 1985. In addition, Department of Accounting and General Services distributed copies of the "Consultation Phase" Draft EIS and Site Selection Study, January 1986, to the following consultants.

### U. S. Government

Department of the Army -- Corps of Engineers  
Department of Agriculture -- Soil Conservation Service  
Department of the Interior -- Fish and Wildlife Service

### State of Hawaii

Department of Accounting and General Services  
Department of Agriculture  
Department of Education  
Department of Health  
Department of Land and Natural Resources  
Department of Transportation  
Office of Environmental Quality Control  
University of Hawaii Environmental Center

### City and County of Honolulu

Board of Water Supply  
Building Department  
Department of General Planning  
Department of Housing and Community Development  
Department of Land Utilization  
Department of Parks and Recreation  
Department of Public Works  
Department of Transportation Services  
Fire Department  
Office of the Managing Director  
Police Department

### Organizations and Individuals

City Councilmember Patsy Mink  
Hawaiian Electric Company  
Hawaiian Telephone Company  
Leihoku Elementary School PTA  
Makaha Elementary School PTA  
Makaha Valley Towers Association  
Life of the Land  
Sierra Club  
State Representative Peter K. Apo  
State Senator James Aki  
Waianae Coast Neighborhood Board #24  
Waianae Elementary School PTA  
Waianae Valley Homesteads Community Association

Waianae School Concerns Coalition  
Landowners of the Alternative Sites  
Mr. Larry Axmaker  
Mr. Walter Enriquez  
Mr. Richard Key  
Ms. Kathy Stevens  
Ms. Bunny Victor

**APPENDIX A**

**COMMENTS AND RESPONSES  
DURING CONSULTATION PHASE**

APPENDIX A

Written responses to the draft Environmental Impact Statement during the consultation phase were received from the following persons and agencies. An asterik indicates no substantive comments.

1. U. S. GOVERNMENT

- \*Department of the Army -- Corps of Engineers
- \*Department of Agriculture -- Soil Conservation Service
- \*Department of the Interior -- Fish and Wildlife Service

2. STATE OF HAWAII

- Department of Agriculture
- Department of Education
- Department of Health
- Department of Land and Natural Resources
- \*Department of Transportation
- Office of Environmental Quality Control

3. CITY AND COUNTY OF HONOLULU

- Board of Water Supply
- \*Building Department
- Department of General Planning
- Department of Land Utilization
- \*Department of Parks and Recreation
- Department of Public Works
- Department of Transportation Services
- Fire Department
- \*Police Department

4. ORGANIZATIONS AND INDIVIDUALS

- Ms. Jean Baker
- Cassandra Bareng Cambra and Adrammelech P. Bareng
- Festus F. Fox Sr.
- Hale Preadly
- \*Hawaiian Electric Company
- Hawaiian Telephone Company
- Makaha Elementary School PTA
- State Representative Peter K. Apo
- Waianae Intermediate Chapter 1, School Parent Advisory Committee
- World Union Industrial Corporation, Ltd.

These review letters and responses to them are contained in the following pages.



DEPARTMENT OF THE ARMY  
U S ARMY ENGINEER DISTRICT, HONOLULU  
FT SHAFTER HAWAII 96810-5400

MEMO TO  
ATTENTION OF

February 20, 1986

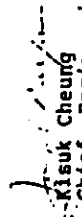
Mr. Hideo Murakami, Comptroller  
Department of Accounting  
and General Services  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

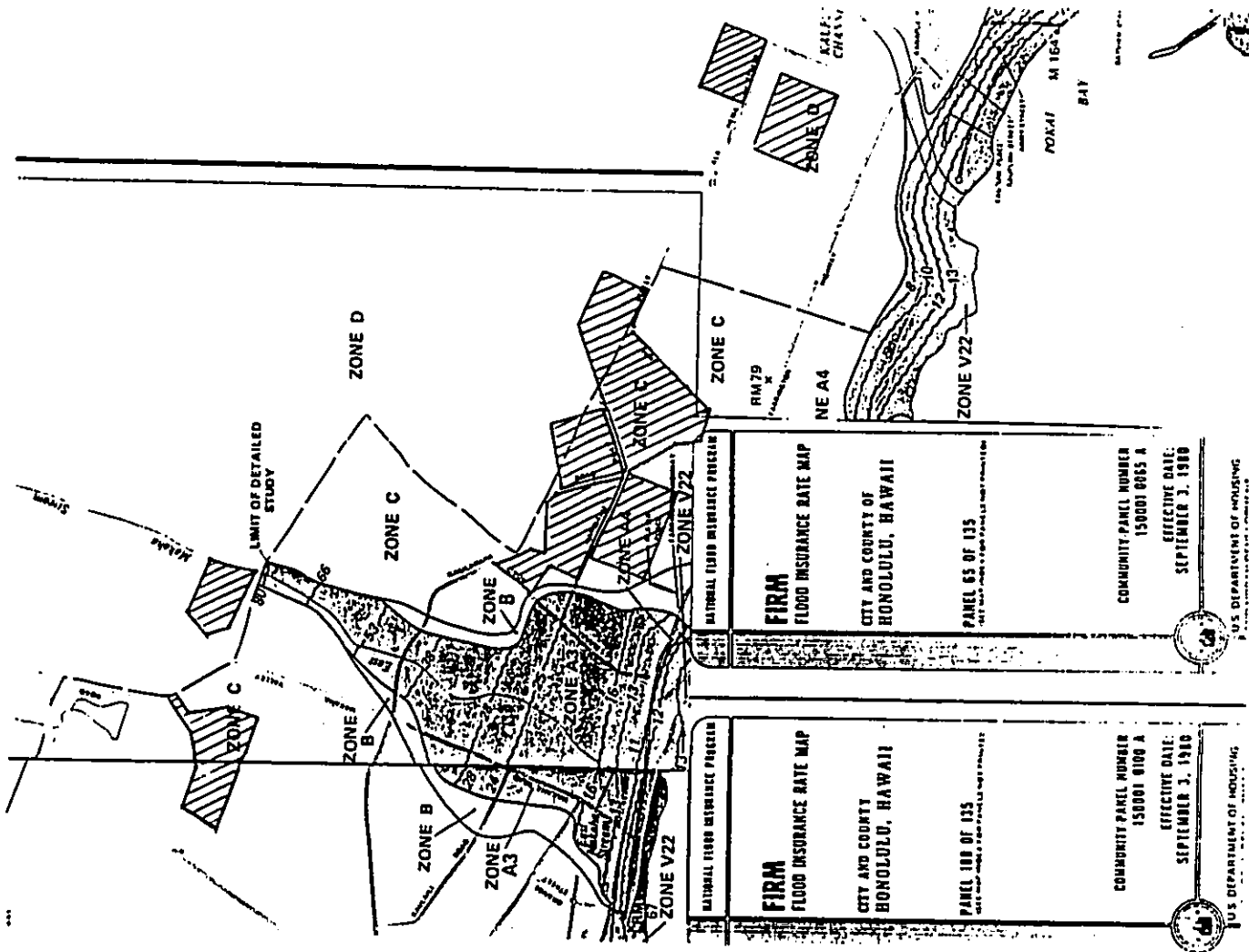
Thank you for the opportunity to review and comment on the EIS Consultation Phase for Waianae III Elementary School, Waianae, Oahu, Hawaii. The following comments are offered:

- a. A Department of Army permit is not required for the proposed action.
- b. The impact of tsunami and riverine flooding upon the ten sites are shown on the enclosed map. All the parcels are located in either Zone C or D which are areas of minimal flooding or of an undetermined, but possible flood hazard area.

Sincerely,

  
Kisuk Cheung  
Chief, Engineering Division

Enclosure



UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96850

February 19, 1986

Mr. Hideo Murakami  
State Comptroller  
Department of Accounting and  
General Services  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, HI 96810

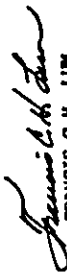
Dear Mr. Murakami:

Subject: Waiānae III elementary School  
EIS Consultation Phase

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

Thank you for the opportunity to review the document.

Sincerely,

  
FRANCIS C.H. LUM  
State Conservationist

A-3



United States Department of the Interior

FISH AND WILDLIFE SERVICE

100 ALA MOANA BOULEVARD  
P. O. BOX 50187  
HONOLULU, HAWAII 96810

ES

Room 6307

FEB 19 1986

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

Re: Waiānae III Elementary  
School EIS Consultation  
Phase

Dear Mr. Murakami:

We have reviewed the referenced material and find that due to its  
nature, the proposed project will have no significant deleterious  
impact on fish and wildlife resources. We recommend that the  
Final EIS identify the preferred alternative site for  
construction of the school.

Please do not hesitate to call on us if we may be of further  
assistance. We appreciate this opportunity to comment.

Sincerely yours,

  
Ernest Kosaka  
Project Leader  
Office of Environmental Services

cc: NMFS - WPP0  
HDFLW  
BDAR  
EPA, San Francisco



Save Energy and You Serve America!

GEORGE R. ABIYOSHI  
GOVERNOR



JACK K. SUWA  
CHAIRPERSON, BOARD OF AGRICULTURE  
SUZANNE G. PETERSON  
DEPUTY TO THE CHAIRPERSON

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2512  
February 12, 1986

Mailing Address:  
P. O. Box 22159  
Honolulu, Hawaii 96822-0159

Mr. Hideo Murakami  
February 12, 1986  
Page -2-

adjacent to an existing poultry operation which probably would be a source of odor that may be incompatible with the operation of a school.

Thank you for the opportunity to comment.

MEMORANDUM

To: Mr. Hideo Murakami, State Comptroller  
Department of Accounting and General Services

Subject: Draft Environmental Impact Statement (DEIS)  
Site selection for Waianae III Elementary School  
TMK: various plats and parcels in 8-4 and 8-5  
Acres: 10 sites ranging from 8 to 10

The Department of Agriculture has reviewed the subject document and has the following comments to offer.

The references to the Land Study Bureau Detailed Land Classification found in the DEIS are correct (EIS, page 13; Appendix A, page 38).

Our review of the information pertaining to the Soil Conservation Service Soil Survey indicates that for sites 6, 7, and 8, there are small portions consisting of Lualualei clay (LuA) with 0 to 2 percent slopes. The soil capability classification is IIIs (soils having severe limitations of stoniness or unfavorable texture). This soil is used for sugarcane, truck crops and pasture.

The subject parcels are not classified according to the Agricultural Lands of Importance to the State of Hawaii (ALISH) system, except for sites 5 and 8 which are classified "Prime".

As stated in the document and confirmed by our review, most of the sites have no agricultural use nor are in close proximity to agricultural activities. However, we note that site 9 is

*Jack K. Suwa*  
JACK K. SUWA  
Chairman, Board of Agriculture





STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

VIDEO MURAKAMI  
COMPTROLLER  
MAE K. TOLUNGA  
SENIOR COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 111, HONOLULU, HAWAII 96810

LETTER NO. (P)1699.6

JUN 27 1986

Honorable Jack K. Suva  
Chairman, Board of Agriculture  
Department of Agriculture  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Suva:

Subject: Waianae III Elementary School  
Draft Environmental Impact  
Statement (DEIS)

Thank you for your February 12, 1986 comments on the above project. Our response to your comments are as follows:

1. Your confirmation of our references to the Land Study Bureau Detailed Land Classification is noted and appreciated.
2. Thank you for the additional information on soils within Sites 6, 7 and 8. However, please note that the most prevalent soil type of each site was used in the site evaluation.
3. The Land Study Bureau Detailed Land Classification system was used rather than the Agricultural Lands of Importance to the State of Hawaii (ALISH) system because it included all of the subject parcels and is consistent with existing land usage. It indicated a very low agricultural productivity rating for all of the sites.
4. The existence of the chicken farm and periodic odors emanating from it were noted under the "Industrial/Agricultural Nuisances" criterion. Please note that Site 9 was rated "poor" for this criterion.

We appreciate your review of the document.

Very truly yours,

VIDEO MURAKAMI  
State Comptroller

GEORGE R. ARAKI  
MEMORANDUM

RECEIVED

MAY 28 02:44 PM '86  
DIV. OF PUBLIC WORKS  
DACC



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 2100  
HONOLULU, HAWAII 96810  
April 28, 1986

OFFICE OF BUSINESS SERVICES

FRANCIS W. METCALER  
MEMORANDUM

Mr. Tolson	
Mr. DeLoach	
Mr. Mohr	
Mr. Bishop	
Mr. Casper	
Mr. Callahan	
Mr. Conrad	
Mr. Felt	
Mr. Gale	
Mr. Rosen	
Mr. Sullivan	
Mr. Tavel	
Mr. Trotter	
Tele. Room	
Miss Holmes	
Miss Gandy	

Mr. Teuane Tominaga -2- April 28, 1986

Site 10 - This site is located too close to the intermediate school and would present administrative problems to both schools, i.e., hijacking, molesting, intimidating, and intermediate students roaming the elementary campus.

This site would also add an unnecessary burden to our bus transportation budget.

Should you wish to further discuss our comments, please call the Facilities Branch at 737-4743.

VHH:WD:J1

cc W. Araki, Leeward District

MEMO TO: Mr. Teuane Tominaga, Public Works Engineer  
Division of Public Works, D.A.G.S.

FROM: Vernon H. Honda, Assistant Superintendent  
Office of Business Services

SUBJECT: Maianae III Elementary School  
Site Selection Study Dated January, 1986

After review of the subject site selection study, the Department of Education recommends that the following sites be removed from further consideration:

- Site 1 - This site is located too close to the Makaha Elementary's boundary and is also too far away from the center of the student population. Administratively, the DOE would have difficulty in maintaining the selected service area of the new school since students residing a "stone's throw" from the new school would be assigned to Makaha Elementary. Also, this site would add an unnecessary burden to our student transportation budget.
- Site 2 - This site is too far from the center of the student population and would add an unnecessary burden to our CIP budget with the extremely high off-site development. Also, this site would add an unnecessary burden to our student transportation budget.
- Site 3 - The public roads leading to this site is extremely substandard and we feel this is a serious potential hazard. Since the school is targeted to open in 1989, the problem of the public roads most likely would delay our critical timetable.
- Site 4 - Same comments as Site 3.
- Site 5 - " " " " " "
- Site 9 - This site is located too far from the Makaha end of the service area. This site would add a large unnecessary burden to our bus transportation budget.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

Completed by: TEUANE TOMINAGA  
 Date: 6-6-86  
 Checked by: SMIJAS  
 Date: 6-6-86  
 (P) 1691.68

Mr. Vernon H. Honda Ltr. No. (P)1691.6  
Page 2

consideration. Please note that this concern is reflected in the evaluation of the site.

Adjacent School (Site 10)

The administrative problems of placing the elementary school adjacent to the intermediate school will be included in evaluating the alternative sites. However, we will also include the cost of two campus aides to help alleviate these problems.

If you have any questions on this matter, please have your staff call Mr. Stephen Miya of the Planning Branch at 548-5742.

Very truly yours,

  
 TEUANE TOMINAGA  
 State Public Works Engineer

SMIJAS

JUN 25 1986

Mr. Vernon H. Honda  
 Assistant Superintendent  
 Office of Business Services  
 Department of Education  
 State of Hawaii  
 Honolulu, Hawaii

Dear Mr. Honda:

Subject: Wai'anae III Elementary School  
 Site Selection and EIS  
 D.A.G.S. Job No. 02-16-7716

In response to your April 28, 1986 memo regarding the subject project, we offer the following comments:

Bussing Cost (Sites 1, 2, 9, and 10)

We do not believe that the high cost for bus transportation is a valid reason to remove these sites from further consideration. Bussing is just one of many cost items which should be considered in the total evaluation. The final site selection should be based on an objective analysis of all the different factors in the school, community and cost criteria.

Off-Site Development Cost (Sites 2, 3, 4, and 5)

The high off-site development costs of these sites will lessen their chances of being selected. However, these costs should be considered along with other cost items and should not be the singular reason for removing these sites from further consideration.

Boundary (Site 1)

The location of Site 1 near the service area boundary may be a valid concern for the DOE. However, we do not believe it justifies removing the site from further



STATE OF HAWAII  
DEPARTMENT OF HEALTH

P. O. BOX 329  
HONOLULU, HAWAII 96801

February 12, 1986

Honorable Hideo Murakami  
February 12, 1986  
Page 2

MEMORANDUM

To: The Honorable Hideo Murakami, State Comptroller  
Department of Accounting & General Services

From: Director of Health

Subject: Waianae III Elementary School EIS Consultation Phase

Thank you for allowing us to comment on the subject draft EIS. We provide the following comments for your consideration.

Wastewater

Any alternative which does not hook up to the existing public sewer system would not be acceptable to the Department of Health.

Noise

1. In site selection of the school, consideration must be given to the possible adverse noise impact to the neighboring residents from school and recreational activities.
2. The school must be designed to comply with the provisions of Title II, Administrative Rules Chapter 43, Community Noise Control for Oahu. Equipment noise, such as air conditioning units and kitchen exhausts, must be attenuated to meet the allowable levels of the regulations based on zoning districts.
3. Construction activities must also comply with the provisions of Chapter 43, Community Noise Control for Oahu.
  - a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the regulations.
  - b. Construction equipment and on-site vehicles requiring an exhaust of gas or air must be equipped with mufflers.
  - c. The contractor must comply with the conditional use of the permit as specified in the regulations and conditions issued with the permit.

4. Traffic noise from heavy vehicles travelling to and from the construction site must be minimized near existing schools and residential areas, and must comply with the provisions of Title II, Administrative Rules Chapter 42, Vehicular Noise Control for Oahu.

*Leslie S. Matsubara*  
LESLIE S. MATSUBARA



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

HIDEO MURAKAMI  
COMPTROLLER  
MAIL ROOM  
OFFICE OF THE COMPTROLLER

LETTER NO. P11473-6

MAY 7 1986

Honorable Leslie S. Matsubara  
Page 2

Ltr. No. (P)1473.6

Honorable Leslie S. Matsubara  
Director  
Department of Health  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Matsubara:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your February 12, 1986 comments on the subject project. Our response to your comments are as follows:

1. Wastewater - The EIS shows the existing public sewer system and indicates how each alternative site will be connected to this system.
2. School Noise - Consideration is being given to the possible adverse noise impact from the school with respect to hospitals, rest homes and other institutions that generally require "quiet zones". This social criterion is covered under "Interference with Institutions" in the Site Selection Study. Mitigation of noise-creating activities will be further considered in the masterplanning and design of the school.
3. Equipment Noise - The EIS states that the school will be designed according to DOH standards which include the provisions of Title II, Administrative Rules, Chapter 43, Community Noise Control for Oahu. The equipment noise control is a consideration for the master plan and design phases rather than selection of the school site.
4. Construction Noise - As indicated in the EIS, all DOH standards including the provisions of Chapter 43, Community Noise Control for Oahu, will be adhered to do in controlling noise during the construction phases.

5. Traffic Noise - As indicated in the EIS, all DOH standards, including the provisions of Title II, Administrative Rules, Chapter 42, Vehicular Noise Control for Oahu, will be adhered to in controlling vehicular noise during the construction phases.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

GEORGE S. BRITTON  
Commissioner of Land



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 521  
HONOLULU, HAWAII 96809

MAR 05 1986

Your: (P)1123.6

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

Dear Mr. Murakami:

Thank you for the opportunity to review the site selection report and the draft environmental impact statement (EIS) for the new elementary school in Waianae.

Our records indicate that the alternate sites occur in, or are located adjacent to, the Waianae District (site no. 1181), a site listed on the Hawaii Register or the National Register of Historic Places.

We therefore recommend that an archaeological reconnaissance survey and subsurface testing of the final site location be conducted by a qualified archaeologist prior to the start of any construction activity. Further, two copies of the reconnaissance report shall be submitted to our historic sites office for review and comment. If warranted, the office may recommend mitigative activities to be completed prior to the start of any construction activity.

Sincerely,

*Susumu Ono*  
SUSUMU ONO  
Chairperson

State Historic Preservation Officer

433

BARNEY ONO, Chairman  
Board of Land & Natural Resources  
GEORGE S. BRITTON, Commissioner  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
P. O. BOX 521  
HONOLULU, HAWAII 96809



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

MAY 7 1985

Honorable Susumu Ono  
Chairman  
Department of Land and  
Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Ono:  
Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your letter of March 5, 1986 commenting on the subject project. The Site Selection Study and EIS will be revised to reflect the extent of the "Waianae District" site (Site 1181). Alternative sites impacting Site 1181 will be dropped from further consideration. Your recommendations regarding a reconnaissance survey and subsequent measures will be discussed with your office after the school site is selected.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller



3-  
 48-  
 1-  
 (P)1721-6



STATE OF HAWAII  
 OFFICE OF ENVIRONMENTAL QUALITY CONTROL  
 465 South King Street, Room 115  
 HONOLULU, HAWAII 96813

LETITIA N. UYEHARA  
 DIRECTOR  
 TELEPHONE NO.  
 548-4813

MAR 24 1986

February 13, 1986

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

Dear Mr. Murakami:

Subject: Waianae III Elementary School Draft Environmental Impact Statement

We suggest that families that may be displaced and landowners in the vicinity of the proposed school site be notified of this project so they too may submit comments. Additionally, we suggest that the sites be archaeologically assessed. Perhaps the Department of Land and Natural Resources' Historic Sites Division could provide you with assistance in this area.

Thank you for allowing us this opportunity to review your project.

Sincerely,  
*Letitia N. Uyebara*  
 Letitia N. Uyebara  
 Director

Ms. Letitia N. Uyebara  
 Director  
 Office of Environmental  
 Quality Control  
 465 S. King Street, Room 115  
 Honolulu, Hawaii 96813

Dear Ms. Uyebara:

Subject: Waianae III Elementary School Draft Environmental Impact Statement

Thank you for your letter of February 13, 1986 regarding the above project. The following responses are provided on your suggestions:

1. Landowners: A copy of the draft EIS was sent to the landowners of the 10 alternative sites for their review and comments.
2. Archaeological Assessment: We discussed this matter with Mr. Wendell Kam of the DLNR Historic Preservation office who recommended an archaeological survey of the selected site prior to its acquisition. Based on the findings of this survey and consultation with the Historic Sites Division, an arrangement may be made for an archaeologist to be present on-site during construction. The EIS will be expanded to indicate this course of action.

Very truly yours,

*J. Tomimaga*  
 TEJUANE TOMINAGA  
 State Public Works Engineer

SM:jk



**BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813



FRANK F. FASI Mayor

ERNEST A. WATABI Chairman  
MILTON J. AGARDER Vice Chairman  
DONNA B. GOY  
RYOKUCHI HIGASHIOMIWA  
PALLA R. RATH  
RUSSELL L. SMITH, JR.  
WAYNE J. YAMASAKI

KAZU HAYASHIDA  
Manager and Chief Engineer

February 12, 1986

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

Dear Mr. Murakami:

Subject: Your Letter of February 5, 1986 on the Waianae III  
Elementary School Environmental Impact Statement,  
(EIS) Consultation Phase

A-13

We are still reviewing the text of the Draft EIS and will be  
sending you our reply by February 28, 1986.

If you have any questions, please contact Lawrence Whang at  
527-6138.

Very truly yours,

*Kazu Hayashida*  
KAZU HAYASHIDA  
Manager and Chief Engineer

BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813



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RUSSELL L. SMITH, Jr.  
WAYNE J. YAMASAKI  
KAZU HAYASHIDA  
Manager and Chief Engineer

February 24, 1986

Mr. Hideo Murakami  
Page 2

February 24, 1986

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

Dear Mr. Murakami:

Subject: Your letter of February 5, 1986 on the Proposed  
Wai'anae III Elementary School, Consultation Phase

A-14

We appreciate the opportunity to review the environmental document on the various alternative sites for the Wai'anae III Elementary School and have the following comments:

1. The proposed school sites are in our Wai'anae Water District where we have no excess capacity in our water distribution system to accommodate new developments. Part of the water that we export to Ewa/Wai'anae is presently being diverted to Waipahu. This is the water that will be available to Ewa/Wai'anae upon the completion and operation of the water treatment facility at our Waipahu Wells.
2. Approximately 4,300 feet of 12-inch main along Makaha Valley Road, from Farrington Highway to Alternative Sites #1 and #2, will be required to provide adequate fire protection. An alternative solution to satisfy fire protection for Site #1 is to install an 8-inch main along the entire length of Noholio Road and along Makaha Valley Road to the access roadway to the site.

3. On page 50, the 10-inch main along Jade Street should be changed to an 8-inch main.

If you have any questions, please contact Lawrence Whang at 527-6138.

Very truly yours,

KAZU HAYASHIDA  
Manager and Chief Engineer

WILSON MURRAY  
Engineer  
1000 N. KAUAIA  
HONOLULU, HAWAII  
(P)1397.6

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 110, HONOLULU, HAWAII 96810

LETTER NO. (P)1397.6



MAY 1 1986

Mr. Kazu Hayashida  
Manager & Chief Engineer  
Board of Water Supply  
630 S. Beretania Street  
Honolulu, Hawaii 96843

Dear Mr. Hayashida:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your letter of February 24, 1986 regarding the above project. The following responses are provided on your comments:

1. Waianae Water District: We understand from discussions with Mr. Lawrence Whang of your staff that the Waipahu water treatment plant should be operational by Fall 1986. Thus the water presently being diverted to Waipahu will be available for use in the Waianae Water District and can accommodate the proposed school. This information will be included in the EIS.
- 2a. Site 1 Waterline: The EIS will be revised to indicate that an 8" line will be extended along the entire length of Noholio Road. Since the line to the school can use the Noholio Street access, we do not see the need to provide a line on Makaha Valley Road.
- 2b. Site 2 Waterline: The EIS will be revised to indicate that an 8" line from Jade Street will run along Noholio and Makaha Valley Roads as indicated in your letter.
3. The statement on page 50 will be revised to indicate an 8-inch main along Jade Street as shown on Exhibit V-26.

Very truly yours,

TEIANE TOMINAGA  
State Public Works Engineer

SM:jk

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813



FRANK F. FAS, Mayor  
ERNEST A. WATARI, Chairman  
MILTON J. AGADER, Vice Chairman  
DONNA B. GOOTI  
RYOICHI HIGASHIMURA  
RUSSELL L. SMITH, JR.  
WAYNE J. YAMASAKI  
KAZU HAYASHIDA  
Manager and Chief Engineer

June 3, 1986

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

Dear Mr. Tomimaga:

Subject: Your Letter of May 1, 1986 on Waianae III  
Elementary School Environmental Impact Statement  
Consultation Phase

A-16

Thank you for your response to our comments on the proposed school. We offer the following clarifications to your comments:

1. Reference Response 1: The additional water available, upon completion of the water treatment facility at our Waipahu Wells, will be allocated to existing farmers in the Waianae area who require larger meters to maintain their present farming activities. The remainder of the available water will then be allocated to others on a first-come, first-serve basis until it is fully allocated. After that, developments would have to wait until we develop our planned wells in Makaha and Waianae valleys. Additional water from these wells should become available in late 1989.

Pure Water... man's greatest need - use it wisely

Mr. Teuane Tomimaga  
Page 2

June 3, 1986

2. Reference Response 2A and 2B: Extending an 8-inch main along Moholio Road will not provide adequate fire protection. An 8-inch main would be required along the entire length of Moholio between Jade Street and Makaha Valley Road. Another 8-inch main along Makaha Valley Road from Farrington Highway to the school access with an interconnection with the 8-inch main in Moholio will also be required. As an alternative, a 12-inch main along Makaha Valley Road from Farrington Highway to the potential school site may be installed.

If you have any questions, please contact Lawrence Whang at 527-6138.

Very truly yours,

KAZU HAYASHIDA  
Manager and Chief Engineer

Pure Water... man's greatest need - use it wisely



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



HERBERT K. MURAOKA  
DIRECTOR AND BUILDING SUPERINTENDENT

PB 86-123

FRANK F. FAR  
MAIL ROOM

MOSES M. KAMAHARU  
COMPTROLLER

WILLIAM H. THURMOND  
DEPUTY COMPTROLLER

LETTER NO. P11705\_6



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 111, HONOLULU, HAWAII 96810

GEORGE H. ANTONIOS  
COMPTROLLER

JUN 27 1986

February 13, 1986

Mr. Kazu Hayashida  
Manager and Chief Engineer  
Board of Water Supply  
630 South Beretania Street  
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your June 3, 1986 clarification regarding water availability and the need for additional lines for adequate fire protection. The EIS will be revised to reflect these comments and additional costs will be included in the development costs for water.

Very truly yours,

*J. Tomimaga*  
TEDANE TOMINAGA  
State Public Works Engineer

SH:jms

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

Dear Mr. Murakami:

Subject: Waianae III Elementary School  
EIS Consultation Phase

We reviewed the draft site selection study and EIS for the proposed Waianae III Elementary School and have no comments.

Thank you for the opportunity to review the draft site selection study and EIS.

Very truly yours,

*Herbert K. Muraoka*  
HERBERT K. MURAOKA  
Director and Building Superintendent

cc: J. Harada

DEPARTMENT OF GENERAL PLANNING  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813



PHONE 548-5000

DONALD A. CLEGG  
LAND PLANNING OFFICER  
GENE CONNELL  
DEPARTMENTAL PLANNING OFFICER

Honorable Hideo Murakami  
February 14, 1986  
Page 2

2. Land Use Planning Controls, page 13

JB/DGP 2/86-7518

February 14, 1986

Honorable Hideo Murakami, Comptroller  
Department of Accounting and General Services  
State of Hawaii  
1151 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Murakami:

Waianae III Elementary School  
Draft Environmental Impact Statement (dEIS)  
Your letter Dated February 5, 1986

We would like to offer the following comments for your consideration.

1. Relationship of Proposed Action to Land Use Plans, Policies and Controls for the Affected Area, pages 13-14

The proposed Waianae III Elementary School project is not presently shown on the Development Plan Public Facilities Map (DP/PF) Map for the Waianae district and therefore is not consistent with the policies expressed in the DP/PF Map for the area. To bring this project in conformity to the DP/PF Map, an amendment will be required.

The dEIS should elaborate on the project's nonconformity to the DP/PF Map and the steps that will be taken to bring the planned facility in harmony with the DP/PF Map.

For information and/or details on amending the DP/PF Map, please call Gary Okino of my staff at 527-6054.

Page 13 of the dEIS, which states:

"... all ten alternative sites are within the State Urban District and in the County Agricultural District, and are outside the Special Management Areas, thus conforming to existing land use regulations" (emphasis ours),

is not totally accurate.

Nine of the ten alternative sites are designated for Agricultural use under the adopted Development Plan Land Use Map for the Waianae District. Alternative Site #10 is designated for Public Facility use.

Alternative Site #4 is situated within the Special Management Area. If Alternative #4 is selected as the development site, it will be subject to the provisions and requirements of Ordinance No. 85-105 which became effective December 2, 1985.

Should you have any questions on Ordinance No. 85-105, please call Robin Foster of the Department of Land Utilization (DLU) at 527-5027.

Exhibit III-4 Land Use Regulations does not reflect the new SMA boundaries established under Ordinance No. 85-105 (see Attachment A).

3. List of Necessary Approvals, page 15

Approval from the Department of General Planning, not mentioned on page 15, will be required.

As indicated earlier, if Alternative Site #4 is selected, approval under the requirements of the Special Management Area ordinance by DLU will be necessary.

Honorable Hideo Murakami  
February 14, 1986  
Page 4

We request that more time be allowed in the future so that my staff has reasonable and adequate time to review your submittals.

Sincerely,

*Donald Clegg*

DONALD A. CLEGG  
Chief Planning Officer

Attachments  
cc: Letitia Uyehara, OEQC  
Robin Foster, DLU

Honorable Hideo Murakami  
February 14, 1986  
Page 3

4. Displacement, page 25

Page 25 of the dEIS should be expanded, particularly if either one of Alternative Sites 2, 3, 4, 6 and 7 is selected as the development site, to indicate where these landowners and/or tenants might be relocated and whether affordable housing will be made available to them.

5. Evaluation of Site 5, page 65-69

From maps prepared by the U.S. Fish and Wildlife Service, it appears that Alternative Site #5 may contain some wetlands delimited by that federal agency (see Attachment B).

If Alternative Site #5 does contain or is located near some wetlands, the dEIS should indicate whether these wetlands provide essential habitat for wildlife living in the area and whether these wetlands are useful in controlling occasional flooding. A Corps of Engineers Section 404 permit may be required for use of Alternative Site #5.

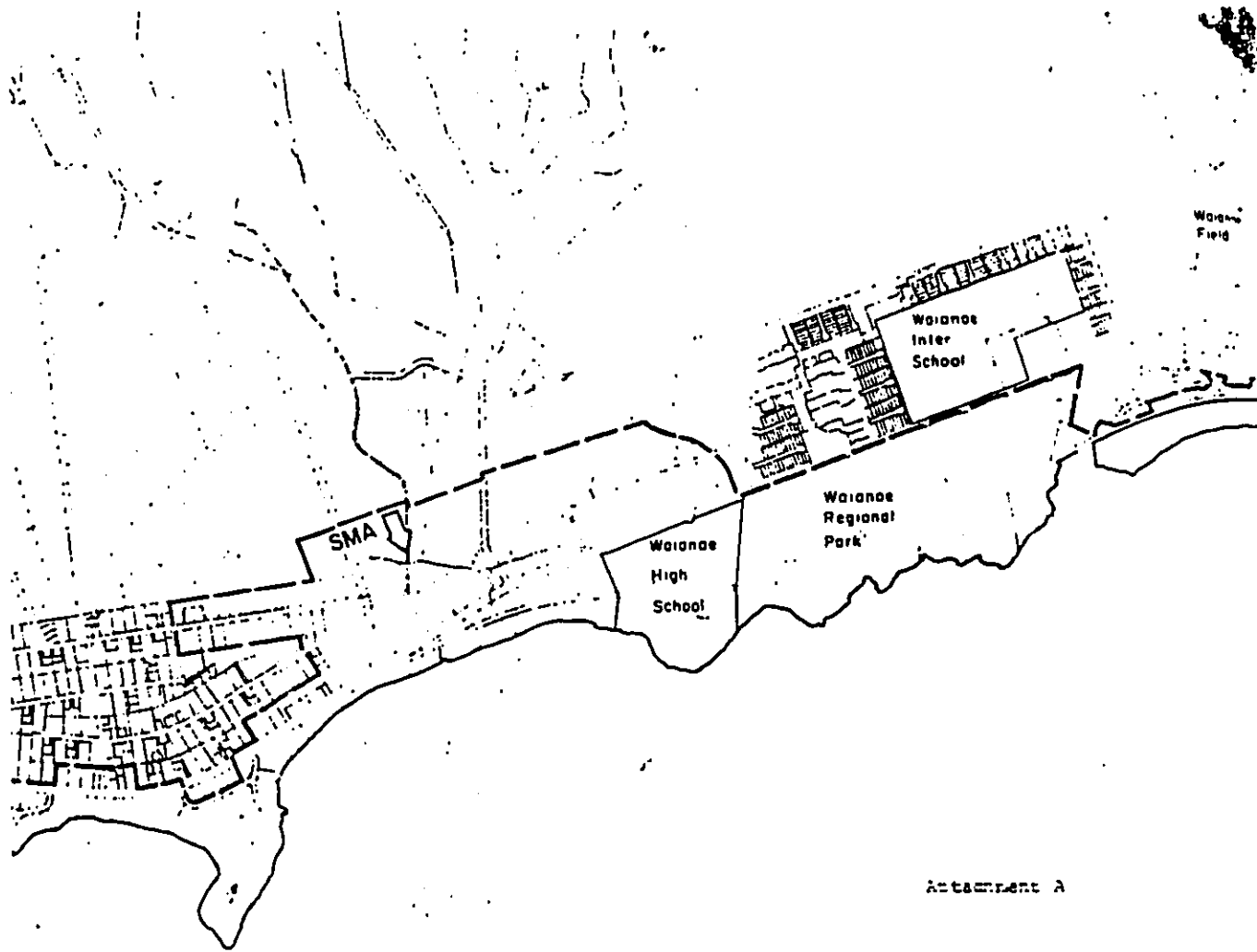
6. Summary of Unresolved Issues, page 32

In light of the project's nonconformance to the DP/PF Map and the fact that Alternative Site #5 is within the boundaries of the SMA, the statement on page 32 which indicates:

"There are no significant unresolved issues" needs to be modified.

7. Draft EIS Review Period, Your Cover Letter Dated February 5, 1986

Your letter dated February 5, 1986 requested comments to be submitted by February 14. This provided less than 5 working days to review the dEIS and respond to your agency. When OEQC circulates a dEIS, it allows a 30-day review period.

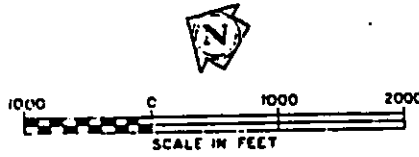


Attachment A

ORD. NO. 85-105

EFF. DATE: DEC. 2, 1985

# SPECIAL MANAGEMENT AREA MAP WAIANAE



Prepared by: Department of Land Utilization  
City and County of Honolulu  
Sept 1980







STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS

Mr. Donald A. Clegg  
Chief Planning Officer  
Department of General Planning  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Clegg:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your February 14, 1986 comments on the above project. Our response to these comments are as follows:

1. Relationship of Proposed Action  
DP Public Facilities Map - The State will submit a request to amend the Public Facilities Map for the Waianae District after the school site is selected. This issue will be included in the EIS.
2. Land Use Planning Controls
  - a. Development Plan - Section VI of the EIS will be revised to indicate that Site 10 is designated for Public Facility use.
  - b. Special Management Area - The EIS will be revised to reflect the new SMA boundary which became effective December 2, 1985 and that Alternative Site #4 is within the SMA.
3. List of Necessary Approvals
  - a. DCP Approval - The Department of General Planning will be included on the list.
  - b. Site 4 - Since this site is within the new SMA boundary it will be deleted from further consideration.
4. Displacement  
All relocation requirements of HRS, Chapter 111, Assistance to Displaced Persons, will be complied

WEL N. TOMINAGA  
DEPUTY COMMISSIONER  
(P) 1469.6  
LETTER NO. 7 K

Mr. Donald A. Clegg  
Page 2  
Ltr. No. (P)1469.6

with if landowners and/or tenants are displaced by the proposed project. Clarification to this effect will be included in the EIS.

5. Site 5 Wetlands  
Site 5 does contain wetlands delimited by the U.S. Fish and Wildlife Service. Although that agency has responded that the project will have no significant deleterious impact on fish and wildlife resources, this site will be deleted from further consideration. This is due to the general importance of wetlands for wildlife habitat and drainage.
6. Summary of Unresolved Issues - We will retain the statement that "there are no significant unresolved issues" based on the following:
  - a. Site 4 which is within the new SMA boundary will be deleted from further consideration.
  - b. Site 5 which contains a wetland will be deleted from further consideration.
  - c. It is our understanding that the DP Public Facilities Map is used primarily to direct County funding for County CIP projects.
7. Review Period - We recognize the short time given for review of the draft EIS and thank you for your cooperation in providing a prompt response. This distribution of the draft EIS was for the "consultation phase". A 30-day review period will be provided when the EIS is distributed for the public review phase.

Should there be any questions, please have your staff call Mr. Stephen Miwa of the Planning Branch at 548-5742.

Very truly yours,  
*J. Toming*  
TEUANE TOMINAGA  
State Public Works Engineer

SN:jnt

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



FRANK P. FAR  
1986

DONALD A. CLEGG  
CHIEF PLANNING OFFICER  
GENE CORNELL  
DEPUTY CHIEF PLANNING OFFICER

JB/DGP 5/86-8419

May 15, 1986

Honorable Hideo Murakami, Comptroller  
Department of Accounting and  
General Services  
State of Hawaii  
1151 Punchbowl Street  
Honolulu, Hawaii 96813

Attention: Mr. Teuane Tominaga  
Dear Mr. Murakami:

2-23

Waiānae III Elementary School  
Draft Environmental Impact Statement (DEIS)  
Letter from DMS Dated May 7, 1986--Ref. No. (P)1489.6

I appreciate your actions in response to our comments on the DEIS for the Waiānae III Elementary School. I would like to clarify the purpose of the Development Plan Public Facilities Map in response to the statement on Page 2 of your May 7 letter.

The DP Public Facilities Maps for the City and County of Honolulu essentially serve several functions. These include the following:

1. Initially, the DP/PF Map serves as a Planning instrument or tool for both the City Administration and City Council to assist these two bodies in the preparation and formulation of the City's budget each fiscal year;
2. It serves as an "early warning system" to the State and City governments, and the general public as well, as to what major facilities and infrastructure improvements are being programmed and proposed within various parts of the City and County of Honolulu;

Honorable Hideo Murakami  
May 15, 1986  
Page 2

3. It further serves as the document which enunciates the policies expressed by the legislative bodies of the State/City governments as to which planned public facility(ies) will be developed or implemented within the "2-6 years" or "7 years and beyond" timeframe; and
4. It can serve as a coordinating function so that the various agencies may see whether their projects could be impacted by other agencies' projects. In this case, if water or sewers are not available for the school, you could see whether any such improvements are proposed.

We trust this helps to broaden your understanding of the purpose of the DP/PF Maps.

If you have any questions, you may call Lon Polk of the Development Plans Branch at 527-6082. If he is unavailable, you may contact Gary Okino at 527-6067.

Sincerely,

*Donald A. Clegg*  
DONALD A. CLEGG  
Chief Planning Officer



GEORGE A. BRITTON  
Engineer

HEOHO MUGALELAW  
Engineer

MIKE H. TOMINAGA  
Senior Engineer

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 111, HONOLULU, HAWAII 96810

LETTER NO. (P)1502.6

MAY 22 1986

Mr. Donald A. Clegg  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
Honolulu, Hawaii

Dear Mr. Clegg:

Subject: Waianae III Elementary School  
EIS Consultation Phase

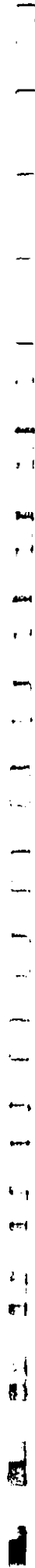
Thank you for your May 15, 1986 letter regarding the purpose of the Development Plan Public Facilities Map. Your clarification of the functions of the Plan is appreciated.

A-24

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

SM/GA:jnt



DEPARTMENT OF LAND UTILIZATION  
**CITY AND COUNTY OF HONOLULU**  
850 SOUTH KING STREET  
HONOLULU, HAWAII 96813 (PH) 933-4432



FRANK FASE  
DIRECTOR

JOHN P. WHALEN  
DIRECTOR

GEORGE R. JANTOVI  
DIRECTOR



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

HOLO MURAKAMI  
DIRECTOR

MAE A. TOHINAGA  
PUBLIC WORKS

LETTER NO. (P) 1471.6

MAY 7 1986

LUZ/86-792 (RF)

February 28, 1986

Mr. Hideo Murakami, State Comptroller  
Department of Accounting & General  
Services  
State of Hawaii  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Maianae III Elementary School  
Environmental Impact Statement (EIS) Consultation Phase

We understand that you are currently carrying out the consultation process prior to filing the Draft EIS, as prescribed by the EIS Rules. Accordingly, we have undertaken only a general review of the content.

We would like to compliment you upon the site selection study which appropriately comprises the bulk of the submitted document. The study considers numerous factors concerning site suitability and, in general, thoroughly addresses the EIS requirement to consider alternatives. We expect that the Draft EIS, when published, will discuss the preferred site and any others that may be considered acceptable alternatives.

Please note that the Special Management Area (SMA) boundaries were amended by Ordinance No. 85-105, enacted December 5, 1985. The sites should be checked against the revised SMA maps, which are available at our office.

We appreciate this opportunity to comment.

Very truly yours,

*John P. Whalen*  
JOHN P. WHALEN  
Director of Land Utilization

284:51

Mr. John P. Whalen  
Director  
Department of Land Utilization  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Whalen:

Subject: Maianae III Elementary School  
EIS Consultation Phase

Thank you for your letter of February 28, 1986 commenting on the subject project.

The Site Selection Study and EIS will identify the alternative sites meeting the minimum site criteria and will rank each of them in terms of physical, social and cost criteria.

The school site will be selected after the Site Selection Study and EIS are approved. The SMA boundary amended by Ordinance No. 85-105 will be incorporated into the EIS.

Very truly yours,

*Teuane Tohinaga*  
TEUANE TOHINAGA  
State Public Works Engineer

SM:jnt

DEPARTMENT OF PARKS AND RECREATION  
**CITY AND COUNTY OF HONOLULU**  
850 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK T. RABY  
DIRECTOR

TOM T. NEKOTA  
DIRECTOR

February 11, 1986

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

Dear Mr. Murakami:

Subject: Draft EIS for the Proposed Maianae III Elementary School  
We have no substantive comments to offer relative to the proposed Maianae III Elementary School.

Thank you for the opportunity to review the draft EIS.

Sincerely yours,

A handwritten signature in cursive script that reads "Tom T. Nekota".

TOM T. NEKOTA, Director

TTN:jf

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



STANDARD & POOL  
 DIVISION

RUSSELL L. SMITH, JR.  
 DIRECTOR & CHIEF ENGINEER  
 ENV 86-44

CLAUDE R. JANTZEN  
 SUPERVISOR



STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 P. O. BOX 119, HONOLULU, HAWAII 96813

MOLO MURAKAMI  
 COMPTROLLER  
 STATE OF HAWAII  
 REPORT COMPTROLLER

LETTER NO. (P) 11723.6

JUL 1 1986

February 27, 1986

Mr. Hideo Murakami  
 State Comptroller  
 Department of Accounting and General Services  
 State of Hawaii  
 P. O. Box 119  
 Honolulu, Hawaii 96813

Dear Mr. Murakami:

Re: EISPH for Waianae III Elementary School

We have reviewed the EISPH for the subject project, including an evaluation of the alternative sites and have the following comments:

1. Wastewater Facilities. Municipal sewers are adequate and available to serve the proposed school facilities at Alternative Sites 6, 7, 8 and 9. Connecting sewers must be constructed through Ala Akau and Ala Nema Streets where easements will be required from the Hawaii Housing Authority. There are no plans to provide municipal sewers for the other six alternative sites.
2. Drainage Facility. Downstream drainage improvements are adequate for Alternative Sites 8 and 9.
3. In summary, only Alternative Sites 8 and 9 have adequate sewerage and downstream drainage facilities.

Very truly yours,

*Russell L. Smith, Jr.*  
 RUSSELL L. SMITH, JR.  
 Director and Chief Engineer

Mr. Russell L. Smith, Jr.  
 Director & Chief Engineer  
 Department of Public Works  
 City and County of Honolulu  
 Honolulu, Hawaii

Dear Mr. Smith:

Subject: Waianae III Elementary School  
Draft Environmental Impact Statement (DEIS)

Thank you for your February 27, 1986 comments on the subject project. Our response to your comments are as follows:

1. Wastewater Facilities. The cost to provide adequate offsite sewerage facilities for each site is contained in the EIS.
2. Drainage Facilities. The EIS will be revised to show that Sites 8 and 9 have adequate existing downstream drainage improvements. The remaining sites will require on-site drainage improvements such as retention basins and dry wells to help ensure that downstream areas will not be adversely affected by the school development. The EIS will be revised to include estimated costs for such improvements.
3. Summary. Although only Sites 8 and 9 presently have adequate sewerage and downstream drainage facilities, these items can be provided for the remaining sites with the estimated costs indicated in the EIS.

Very truly yours,

*Teuane Tomiyaga*  
 TEUANE TOMINAGA  
 State Public Works Engineer

SH:jnt

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



FRANK P. PAUL  
DIRECTOR

JOHN E. HIRTEN  
DIRECTOR  
JOSEPH M. MADALON, JR.  
DEPUTY DIRECTOR

TB-657  
PL 1.0213

February 20, 1986

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

Dear Mr. Murakami:

Subject: Waianae III Elementary School  
EIS Consultation Phase

This is in response to your request of February 5, 1986 for comments on your draft site selection report and EIS for the subject project.

To reduce traffic problems, we recommend that all roadways to the proposed school be improved to at least two lanes width with sidewalks.

We also recommend that the proposed school service areas be based on direct available travel routes and not on geographic spacing. For example, the proposed service area as shown on Exhibit I-4 cuts off the upper section of Waianae Valley and assigns the students to Leihoku Elementary. The students from this district would traverse a greater distance to Leihoku than the students who reside below this boundary line.

We thank you for providing us this opportunity to review and comment on the project.

Sincerely,

JOHN E. HIRTEN



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 119 HONOLULU, HAWAII 96813

GEORGE B. ANDERSON  
DIRECTOR

HOLD HERE  
DATE IN HONOLULU  
LETTER NO. (P)1470.6

MAY 7 1986

Mr. John E. Hirten, Director  
Department of Transportation Services  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Hirten:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your February 20, 1986 response on the above project. Our response to your comments are as follows:

1. Traffic: We acknowledge the importance of adequate roadways and sidewalks in reducing traffic problems and will provide some sidewalks and at least one two-lane roadway to the school site selected. However, the improvement of all roadways to the school is beyond the Department of Education's responsibility and funding capability.
2. Direct Travel Route: We agree that the proposed school service area should generally be based on the shortest travel routes available. However, the distribution of students in relation to the school sites requires that adjustments be made if the desirable sizes of the schools are to be met. Please note that school bus service is provided for students living more than one mile from the school.

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

SH:jnt



**FIRE DEPARTMENT  
CITY AND COUNTY OF HONOLULU**

1525 S. BERETANIA STREET, ROOM 305  
HONOLULU, HAWAII 96814



FRANK K. KAHOOHANOHANO  
Fire Chief

FRANK K. KAHOOHANOHANO  
Fire Chief  
LIONEL E. CANARA  
Deputy Fire Chief

GEORGE B. ABETO  
Deputy Chief



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 118, HONOLULU, HAWAII 96818

HIDEO MURAKAMI  
State Comptroller

LETTER # P11399-6

APR 28 1986

February 14, 1986

Department of Accounting and  
General Services  
State of Hawaii  
Post Office Box 119  
Honolulu, Hawaii 96810

Gentlemen:

**SUBJECT: WAIANA E III ELEMENTARY SCHOOL  
EIS CONSULTATION PHASE**

A I  
N O

We have reviewed the draft site selection report and EIS for the above subject. As noted in the EIS, primary fire protection will be provided by an engine company located at the Waianae Fire Station. In addition, secondary protection will be provided by the Manakuli and Waipahu Fire Stations, 6.5 and 17.5 miles away respectively.

Water for fire fighting, access roadways and building construction are subject to applicable fire and building codes.

Thank you for the opportunity to review and comment on this project.

Should you have any questions, please contact Battalion Chief Kenneth Word at 943-3838.

Very truly yours,

*Frank K. Kahooohanohano*  
FRANK K. KAHOOHANOHANO  
Fire Chief

FKK:KAM:lm

Mr. Frank K. Kahooohanohano  
Fire Chief  
Fire Department  
1455 S. Beretania St., Room 305  
Honolulu, Hawaii 96814

Dear Mr. Kahooohanohano:

**Subject: Waianae III Elementary School  
EIS Consultation Phase**

Thank you for your February 14, 1986 comments on the subject project.

Your comments on the secondary fire protection to be provided by Manakuli and Waipahu Fire Stations will be included in the EIS. Construction of the school will be according to applicable County fire and building codes.

We appreciate your review of the document.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

HONOLULU, HAWAII 96813  
TELEPHONE: 535-3111

FRANK C. PAH  
MAYOR



DOUGLAS G. GIBB  
CHIEF  
ADMINISTRATIVE BUREAU  
DEPUTY CHIEF

REFERENCE DI-JS

February 12, 1986

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

Dear Mr. Murakami:

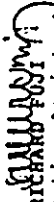
Subject: Waianae III Elementary School  
EIS Consultation Phase

A 30

We have reviewed the material on Waianae III Elementary School and have no objections to the proposed project at this time.

Sincerely,

DOUGLAS G. GIBB  
Chief of Police

BY   
RICHARD FUSTI  
Acting Assistant Chief  
Administrative Bureau

84-231 Holt Street  
Makaha, Hawaii 96792  
March 5, 1986

Mr. Roy Kimura, Principal  
Makaha Elementary School  
84-200 Ala Naa'ao Place  
Makaha, Hawaii 96792

Dear Roy,

At a meeting held at Wai'anae Elementary School the evening of February 25th, the state departments involved presented a summary of the ten (now nine) locations under consideration for a new Makaha-Wai'anae elementary school site. Those of us in the audience were asked to submit our recommendations to our principals, who in turn are asked to forward our input to DAGS via District Office.

Please accept the following reactions:

- 1.) Site 10 is NOT suitable at all due to its proximity to Wai'anae Intermediate School, Farrington Highway, and the distance from the Makaha Valley population.
- 2.) Site 9 is also too far from the Makaha Valley population.
- 3.) Sites 1 and 2 are too expensive and too far from the Ulu Wehi population.
- 4.) Sites 3, 5, 6, 7, and 8 are all acceptable locations and fall in the lower cost range.

Thank you for considering and forwarding my input.

Sincerely,

*Jean Baker*  
Jean Baker, Teacher  
Makaha Elementary



GEORGE B. SANDERS  
DIRECTOR

MOLO KUIA  
KAPUNIA  
STATE OF HAWAII  
DIVISION OF PUBLIC WORKS  
(P)147  
LETTER NO.

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 118, HONOLULU, HAWAII 96810

MAY 7 1986

Ms. Jean Baker, Teacher  
Makaha Elementary  
84-231 Holt Street  
Makaha, Hawaii 96792

Dear Ms. Baker:

Subject: Wai'anae III Elementary School  
EIS Consultation Phase

Thank you for your March 5, 1986 letter to Mr. Roy Kimura, Makaha Elementary School principal, commencing on the subject project.

Your position against Alternative Sites 1, 2, 9 and 10 for the reasons given and your position for Alternative Sites 3, 5, 6, 7, and 8 will be considered in the selection of the site for the school.

We appreciate your input for this project.

Very truly yours,

*J. Tomimaga*

TEUANE TOMINAGA  
State Public Works Engineer

SM:jnc  
cc: Mr. William Araki  
Mr. Roy Kimura

Cassandra Bareng Cambra  
Adramelech P. Bareng  
85-220 Mahinau Road  
Maianae, Hawaii 96792

March 8, 1986

Mr. Stephen Miwa  
Public Works Division  
Department of Accounting & General Services  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, Hawaii 96810

RE: Maianae III Elementary School  
EIS Consultation Phase  
Site Selection 3  
TMK: 8-5-02:46  
Owners: Cassandra Bareng Cambra  
Adramelech P. Bareng

Dear Mr. Miwa,

We have just recently received the draft report issued January 1986, which was prepared by the ITH Inc., namely, the Maianae III Elementary School EIS Consultation Phase Report.

27  
1  
2  
3

We have been suspicious for some time and amused by the coincidence of events concerning our parcel and area. In 1982, the properties including our parcel, between the Ulu Ichi housing and Coronet Store, and from Farrington Highway to the mountain base were downgraded from residential to agriculture. Some months back, we were curious when finding that someone had been surveying the boundaries of our property. Now we learn that our parcel is one of ten alternative sites for an elementary school, which interestingly enough, you informed us that the study was also commissioned in 1982. It dumbfounded us when we realized that for months now, we have not been receiving the minutes of the meetings of the Maianae Neighborhood Board.

First, we are still disgruntled over the downgrade of our parcel because many of us landowners were not notified and consulted. We learned about the downgrade too late to voice our objections. Obviously, we feel that we have not been represented fairly. We insert a clipping of the controversy which continues today.

Second, there seems to be a contradiction of direction. We are of the opinion that the two-year old Maianae Development Plan was to restrict development in our area and growth in the Leeward Coast. The Maianae Neighborhood Board has been firm to this commitment as they have continuously refused to support the reversal of the downgrade of properties along Farrington Highway which fronts our parcel.

Realistically, the Maianae III elementary school in our area will definitely and indirectly spur growth and development; and this will be outside the projections.

Maianae III Elementary School  
TMK: 8-5-2:46 (Bareng & Cambra)  
March 8, 1986  
Page 2

Our main concern is not so much the increased growth and development in the Leeward Coast, but rather that the Leeward Coast already has an inadequate police force. In an area where the population and crimes have been increasing, there are only five (5) police officers per shift patrolling the entire coastline. This is absurd, and we empathize with the Maianae Police Department.

Mr. Miwa, we have struggled and invested all our earnings and savings to have the privilege of property ownership. This is so that we can assure ourselves and our children provisions for the present and the future ----- shelter and security by the ways of the "ohana". We believe that we have the same rights and claims as the Hawaiian people in keeping our property; and that, we should be able to have full exercise of these ownership rights. Therefore, we intend to protect our interests to the extent of seeking every resource to prevent a condemnation of our parcel.

We had purchased and improved our parcel almost ten (10) years ago for nearly the same proposed acquisition cost in the draft report. Certainly, the State does not expect us to sell our two (2) acres at the proposed acquisition cost (lower than fair market value); and then, to have us buy elsewhere for far less land area at today's current high prices of property (fair market value). Without a sufficient large downpayment, our mortgage payments will nearly triple. This is unjust! The State cannot ignore the changes in the Hawaii real estate market in the last decade.

The State inflicts undue hardship, especially in view of the fact that the Maianae III elementary school project seeks 6 - 8 acres of land; and in the inclusion of our parcel, under site selection #3 (10 3/4 acres), puts the site selection at 2 3/4 to 4 3/4 acres over the State's needs. Also, do not forget that Site #10 is already owned by the State Department of Education.

The draft report fails to recognize the following, and we believe that these issues should be addressed clearly as well.

1. Our parcel TMK: 8 - 5 - 02:46 is owned by two (2) separate family members (brother-sister), and of which has been owner-occupied since its purchase. Therefore, the State needs to contend with two (2) landowners, which means that although site selection #3 has three (3) parcels, there are in actuality four (4) separate landowners.
2. Mahinau and Maiau Roads are privately owned roadways. The report does not reflect the cost of acquisition of these parcels. Also, communication and utilities were not rated as there are indeed costs to be incurred for adequate street lighting in the area.
3. Upon surveying site selection #3, there are at least 2-3 large deep water wells, and a running ground stream. We were informed at the time we purchased our parcel that the properties sits on an artesian well. It has been our experience as well as for others elsewhere whose properties had similar characteristics, that structural damage

Maianae III Elementary School  
TAK: 8-5-2:46 (Bareng & Cambra)  
March 8, 1986  
Page 3

has occurred due to shifting, collapse, and deep/wide cracks of the soil after heavy rains.

4. Proximity of the student population is questionable. Per our initial conversation, Mr. Miwa, you advised us that the student population was projected in lower Makaha Valley. We presume from studying the map of existing urbanization that the growth is centrally located west of Makaha Valley Road. The proximity of this area to all the site selections appears to be generally the same, whether it is sites #1 and #2 versus sites #8, #9, #10. The proximity of sites #6, #7, #8 to our parcel is no farther than 1/4 to 1 block or less than five (5) minutes walk. It is an additional five to ten (5 to 10) minutes walk to Maianae Intermediate where site #10 is located. Yet, there is such a large disparity in the ratings. For example, sites #5 and #6 which are directly across each other have proximity factors of student population of 74 and 158, respectively, but site #6 (158) is closer to the main accessways.

We feel that the ratings and the assumptions of the proximity of student population are flawed; and that they distort the costs of the bus subsidies.

In the very short period in which we have received this draft report, we have not been able to fully research and assess all the factors which will have an impact on us and our parcel under site selection #3. However, we feel that our comments fully express our deep concerns, and reflect our strong intentions in protecting our security and interests.

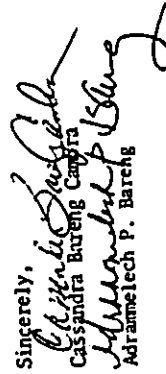
We would like to receive continuous and prompt progress reports on the status of our parcel and the proposed Maianae III Elementary School project as this has restrained us from continuing our present renovations of our home, as well as it has disallowed us from taking advantage of today's lowest borrowing interest rates in years. This is all so distressing as this proposal has placed further restrictions and have hindered us from having quiet enjoyment of our property.

We trust that you will dutifully convey our concerns and comments to all parties involved with the Maianae III Elementary School project.

We are anxious and look forward to the State's response.

Thank you for your time, patience and understanding.

Sincerely,

  
Cassandra Bareng Cambra  
Adraumelech P. Bareng

Enclosures

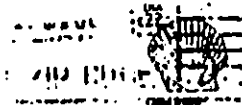
/cbc

Maianae III Elementary School  
TAK: 8-5-2:46 (Bareng & Cambra)  
March 8, 1986  
Page 4

P.S. Copies of this letter are being sent to the following:

Governor George Ariyoshi  
State Senator James Aki  
State Representative Peter K. Apo  
Mayor Frank Fasi  
City Councilmember Patsy Mink  
Maianae Neighborhood Board #24  
Department of Planning, State of Hawaii  
Department of Land Utilization, State of Hawaii  
Department of General Planning, City & County of Honolulu  
Department of Land Utilization, City & County of Honolulu

Cassandra B. Cumbra  
Adramelech P. Bareng  
85-220 Mahinaau Road  
Waianae, HI 96792



Mr. Stephen Miwa  
Public Works Division  
Department of Accounting & General Services  
P.O. Box 119  
Honolulu, Hawaii 96810

Subject: Waianae III Elementary School  
EIS Consultation Phase

|||||

May 10 1986 Waianae Sun Times A-5

## Waianae residents respond favorably to development plan

WAIANAE — Waianae III residents have responded favorably to the proposed development plan for the new elementary school, according to a survey conducted by the Planning Commission. The survey, which was conducted in late April, found that 85 percent of the residents surveyed supported the plan. The plan calls for the construction of a new 100,000-sq-ft elementary school on a 10-acre site in the Waianae III area. The school is expected to be completed in 1988. The Planning Commission will be holding public hearings on the plan in the coming weeks. Residents are encouraged to attend these hearings and provide their input. For more information, contact the Planning Commission at 85-220 Mahinaau Road, Waianae, HI 96792.


### Parks summer sign-up set

WAIANAE COAST — The Waianae Coast State Park will be holding a summer sign-up session for the 1986 season. The session will be held on Saturday, May 17, from 9 a.m. to 12 p.m. at the park's main entrance. Participants will receive a sign-up card and a list of activities. Activities include hiking, swimming, and picnicking. The sign-up fee is \$2.00. For more information, call 832-1111.

### Pokal Pottery in Manoa fair

WAIANAE — Pokal Pottery will be exhibiting at the Manoa Fair on Saturday, May 10, from 10 a.m. to 4 p.m. Pokal Pottery is a local pottery studio that specializes in hand-thrown pottery. They will be displaying a variety of pottery items, including mugs, vases, and plates. They will also be offering pottery classes. For more information, call 832-1111.

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COMPTROLLER

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 110, HONOLULU, HAWAII 96810

WEDIO MUBALAMU  
COMPTROLLER  
WILE M. TOULIMACA  
REPORT CONTROLLER

LETTER NO. (P)1465.6

MAY 6 1986

Ms. Cassandra Bareng Cambra  
Mr. Adrammelech P. Bareng  
85-220 Mahinau Road  
Waianae, Hawaii 96795

Dear Ms. Cambra and Mr. Bareng:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your March 8, 1986 letter regarding the above project. Based on the additional information obtained during the EIS consultation phase, Alternative Site No. 3 which includes group property is being deleted from further consideration. However, we offer the following responses to your comments.

1. Coincidence of Events -

- a. See response 2 below concerning the down-zoning.
- b. We are not aware of any boundary survey done on your property.

c. The Site Selection Study and EIS for Waianae III Elementary School was started in January 1986 by DAGS' consultant, DRM Inc.

2. Downzoning - Based on the newspaper article you sent, we conclude that the 1982 downzoning from residential to agriculture was done by the County. The Department of Accounting and General Services is a State agency and is not involved with the City and County of Honolulu or the Waianae Neighborhood Board in the Development Plan Land Use classification process to which you refer.

3. Waianae Development Plan - The newspaper clipping indicates the downzoning in the Waianae Development Plan was to protect agricultural land use and to reduce property tax. The proposed school should not change these reasons.

Ms. Cassandra Bareng Cambra  
Mr. Adrammelech P. Bareng  
Page 2  
Ltr. No. (P)1465.6

- 4. Growth and Development - Previous experience with severely overcrowded schools has shown that the lack of school facilities does not stop or retard the development of an area. We therefore do not agree that the school will spur the growth and development of an area.
- 5. Inadequate Police Force - The police force is a County matter. Therefore, we have no comments to offer.
- 6. Property Ownership - Your concern for the potential loss of your property is understandable. On all property acquisition, we endeavor to mitigate as much of the adverse consequences as is possible. See also response 7 concerning condemnation proceedings.
- 7. Acquisition Cost - The acquisition cost estimates used in the cost evaluation section of the Site Selection Study are strictly for the purpose of cost comparison among the alternative sites. As stated in the study, these costs are based on 1985 County assessed values. The actual acquisition cost will be determined by negotiations based on appraisal reports by land appraisers or it will be determined by the courts in condemnation proceedings if agreement on the price cannot be reached.
- 8. Site 3 Size - Site 3 is larger than the other alternative sites because of the size and shape of the existing parcels. The larger and longer parcel could be subdivided so that the area acquired would be the same as the other sites.
- 9. Land Owners - The joint ownership of your parcel is indicated on Exhibit V-7 of the Site Selection Study. Please note that as a result of multiple land ownerships for Site 3, it was rated "poor" for the Landownership criterion.
- 10. Mahinau & Maiuu Roads - Although these are private roads, acquisition of the sites served by these roads will allow the use of these roads for their access. Additionally, we note that these roads are currently open to the public and are maintained by the City and County as a public service.

The Site Selection Study evaluated each site in terms of the availability of utilities - specifically electrical and telephone service. Since electric and telephone service is readily available to all alternative sites, costs for these utilities will be generally equal for all sites.

In accordance with State policy, only off-site improvements which are necessary for the new school facility will be installed with the school development. Street lights are not a required amenity for elementary schools, thus there is no cost identified for this item.

11. **Water Wells** - We have consulted with the Hydrology-Geology Section of the Board of Water Supply regarding wells and streams on Site 3. Although they have no record of wells on Site 3, they do feel that it is possible that some of the abandoned well pits on their property (TRK 8-5-02:16, mauka of Site 3) may extend onto parcel 8-5-02:25. They believe that it is very unlikely that there are wells on your parcel 46 or parcel 47. The presence of such well pits would not be a constraint to the school development, but would need to be filled and/or sealed for obvious safety reasons.

There is a spring on BWS's parcel 16 which may flow across a portion of parcel 25. Again, this is not a physical constraint to potential development, but would need to either be filled, or its drainage controlled.

Site 3 is located above an artesian basin, however this has no impact on site development. The shifting, collapse, and deep/wide cracks of the soil after heavy rains are a result of the soil properties and not the artesian basin, wells or spring. These soil properties are described and evaluated in Chapter V of the Site Selection Study, and Site 3 was rated "Poor" for the very reasons you mention. These soil properties are common in the area (see Sites 4 and 5), and while less desirable, they can be mitigated with appropriate construction methods.

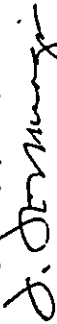
12. **Student Population** - You are correct in questioning the proximity of the student population as published in the consultation phase document. These figures have since been revised based on an actual walking distance of 1 mile versus the 1 mile radius used initially. The proximity and bus subsidy ratings reflect the percentage of the present student population in the service area which would qualify for bus service.

13. **Deep Concerns** - We understand your concerns for your property and appreciate your expressing them to us.

14. **Status Reports** - The next step in the process is to revise the draft EIS and to distribute the EIS. We will be sending you a copy of the EIS through the Office of Environmental Quality Control during the public review phase of the EIS process.

Your comments of the dEIS and Site Selection Study are appreciated.

Very truly yours,



TEUANE TOMINAGA  
State Public Works Engineer

SM,jk  
cc: Governor George R. Ariyoshi





STATE OF HAWAII  
 DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
 DIVISION OF PUBLIC WORKS  
 P. O. BOX 111, HONOLULU, HAWAII 96811

MAY 7 1986

LETTER NO. (P)1476.6

STORAGE & ANTIDOTE

#49-1011 Canterbury Dr.  
 Calgary Alberta T2W 2S5  
 Phone (403) 281-2356  
 Nov-12 1986

Dept. of Accounting & Gen. Services  
 11511 - Punchbowl Street  
 Honolulu, Hawaii 96810

Dear Sirs,

Re - SITE #2 - 4.838 Mc Mahala Valley  
 T.M.K. - 8-4-20-14

As owners of the above property we have no knowledge of any one living on the property, although it is without our knowledge or permission. According to your cost criteria on page 104 you show imprints of both a house and a relation of \$1800. We have no record of any of no value and should be eliminated in its entirety, and could be demolished and done away with. I trust this info. is of some use to you.

Yours truly,  
 A.K.A. Stephen F. Preadly

Mr. Hale Preadly  
 a.k.a. Stephen F. Preadly  
 49-1011 Canterbury Drive  
 Calgary Alberta T2W2S8  
 CANADA

Dear Mr. Preadly:

Subject: Waianae III Elementary School  
 EIS Consultation Phase

Thank you for your letter dated March 12, 1986 commenting on the subject project.

Since we were unsure whether or not the house was occupied, we assumed that it was and included a cost item for relocation. However, based on your letter, this cost item will be deleted.

The house assessment value of \$6,344 will remain a cost item in the report to maintain evaluation consistency among the alternative sites, as all costs are based on 1985 assessed value determined by the City and County of Honolulu, Real Property Assessment Division

We appreciate your review of the document.

Very truly yours,

*J. Toming*

TEJUANE TOMINAGA  
 State Public Works Engineer

SM:jnt



**FOX PLUMBING CO., INC.**

C.L. 7418375  
568 N. TULIP

ESCONDIDO, CALIFORNIA 92025

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PHONE 480-0140

March 11, 1986

Department of Accounting  
and General Services  
1151 Punchbowl Street  
P.O. Box 119  
Honolulu, Hawaii 96810

Gentlemen:

Please be advised that after reviewing the documentation sent to us, we find no objection to any of the sites being considered for the Maianae III Elementary School.

Sincerely,

*Festus F. Fox Sr.*  
Festus F. Fox Sr.

FF/jw

HAWAIIAN ELECTRIC COMPANY, INC. • PO BOX 2750 • HONOLULU, HI 96840-0001

ENV 2-1  
HW/G

February 26, 1986



Brenner Munger Ph.D. PE  
Manager  
Environmental Department  
(808) 548 6880

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

Dear Mr. Murakami:

Subject: Maianae III Elementary School EIS  
Consultation Phase

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

Sincerely,

A handwritten signature in cursive script, appearing to read 'Brenner Munger'.

JHM:gs

**HAWAIIAN TELEPHONE**  
**GTE**

February 14, 1986

Victor M. Goto  
Network Engineering Director

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

Dear Mr. Murakami:

Waianae III Elementary School  
EIS Consultation Phase

We have reviewed the Draft Site Selection Report and EIS for the Waianae III Elementary School and find that the project should not have any adverse environmental effect on our existing facilities nor do we foresee any problem in providing communication services to the proposed sites.

There are existing telephone lines located in public thoroughfares either adjacent to or a short distance from all of the ten alternative school sites. Aerial lines exist at sites 1, 2, 3, 4 and 5; underground lines at site 9; and both aerial and underground facilities at sites 6, 7, 8 and 10.

In areas where aerial telephone facilities exist, we will install additional poles, as needed, and extend the service lines overhead to the school. If overhead service is undesirable, then costs for underground service should be included in your budget. The cost can be determined after the final site is selected and detailed plans are drawn.

Where underground facilities now exist, we will extend the service lines underground. Provisions for the installation of the conduit system within the project site should be included in your budget.

Thank you for the opportunity to comment on this project. If you have any further questions, please call Francis Leong at 546-3464.

Sincerely,



GEORGE R. SAITOH  
Director

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

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BY: [illegible]

LETTER NO. (P) 1474.6

FEB 17 1986

Mr. Victor M. Goto  
Network Engineering Division  
Hawaiian Telephone Company  
P. O. Box 2200  
Honolulu, Hawaii 96841

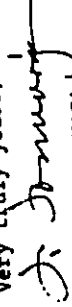
Dear Mr. Goto:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your letter of February 14, 1986 commenting on the subject project.

The information on existing telephone lines will be included in the EIS. Costs for necessary telephone service both on and off the site will be included in the project budget once a final site is selected.

Very truly yours,



TEDANE TOMINAGA  
State Public Works Engineer

SM:jnt

LDO



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
110 SOUTH KING STREET, HONOLULU, HAWAII 96813

STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
LETTER NO. (P) 1478.6

March 10, 1986

MAY 7 1986

Mr. Roy Kimura, Principal  
Makaha Elementary School  
84-200 Ala Na'auao Place  
Waianae, Hawaii 96792

Mr. Walter Enriques, Treasurer  
Makaha Elementary School P.I.A.  
84-760 Lahaia Street  
Waianae, Hawaii 96792

Dear Mr. Kimura,

Site 5, 6, 7 & 8 are all acceptable locations.

Site 3 is unacceptable due to water run-off during the rainy season.

Thank you for your consideration.

Sincerely,

*Mr. Walter Enriques*  
Mr. Walter Enriques, Treasurer  
Makaha Elementary School P.I.A.

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your March 10, 1986 letter to Mr. Roy Kimura, Makaha Elementary School principal, commenting on the subject project.

Your position for Alternative Sites 5, 6, 7 and 8 and against Alternative Site 3 due to storm runoff will be considered in the selection of the school site.

We appreciate your input for this project.

Very truly yours!

*J. Teuane*

TEUANE TOMINAGA  
State Public Works Engineer

SM:jnt  
cc: Mr. William Araki  
Mr. Roy Kimura

4-  
3-  
5-2  
A.1  
F-  
(P)1178.6

HOUSE OF REPRESENTATIVES  
THE THIRTEENTH LEGISLATURE  
STATE HOUSE  
HONOLULU, HAWAII 96813



February 7, 1986

RECEIVED  
FEB 10 1 08 PM '86  
DIV. OF PUBLIC WORKS

Mr. Hideo Murakami  
Director  
Dept. of Accounting & General Services  
Kalaninokou Building  
1151 Punchbowl St.  
Honolulu, HI 96813

Dear Mr. Murakami:

Thank you for forwarding a copy of the Waianae III Elementary School Draft Environmental Impact Statement. I shall be forwarding my comments shortly. I would appreciate your forwarding a copy of the draft to:

Mrs. Billie Hauga  
Waianae School Concerns Coalition  
c/o Waianae Community Action Program  
85-555 Farrington Highway  
Waianae, HI 96792

I believe this organization can provide some valuable input. If the Waianae School Concerns Coalition is already on your mailing list please disregard this letter.

*Billie Hauga*  
Billie Hauga,  
Representative Peter K. Apo

BKA/wh  
cc: Billie Hauga

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FEB 21 1986

Honorable Peter K. Apo  
Representative  
State Capitol, Room 439  
Honolulu, Hawaii

Dear Representative Apo:


Subject: New Waianae III Elementary School  
Site Selection and EIS  
DACS Job No. 02-16-7716

Thank you for informing us of the existence of the Waianae School Concerns Coalition. As requested, we have sent a copy of the draft EIS to the organization for their review and comments.

If there are any questions, please have your staff call Mr. Stanley Shin of the Public Works Division at 548-7488.

Respectfully,  
*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

SM:jk  
bcc: Governor's Office  
Administrative Services Office  
Budget and Finance


**WAIANA'E INTERMEDIATE SCHOOL**  
 85-696 FARRINGTON HIGHWAY  
 3/12/86  
 86 HWY 13 AB-26 WAIANA'E, HAWAII 96792  
 CHAPTER ONE READING PROGRAM  
 ADMINISTRATION  
 March 10, 1986

GEORGE R. ANTONIO  
 DEPARTMENT

RECEIVED

Mar 19 8 43 AM '86



STATE OF HAWAII  
 DEPARTMENT OF EDUCATION - LEeward DISTRICT  
 OFFICE OF DISTRICT SUPERINTENDENT  
 94-366 PUPUPANI STREET  
 WAIANA'E, HAWAII 96792

March 17, 1986

**TO:** Mr. Teuane Tomiaga  
 State Public Works Engineer  
**ATTN:** Mr. Steve Miwa  
 Planning Branch  
**FROM:** William H. Araki  
 District Superintendent  
**SUBJECT:** Waianae III Elementary School  
 Site Study

We are forwarding the attached reactions for your information and consideration as recommendations are made for the ultimate selection of the school site.

WPA/WKT:jo  
 Attachments  
 cc: Waianae Intermediate  
 Hakaha Elementary

APPROVED BY: [Signature]  
 DATE: 3/17/86  
 APPROVAL: [Signature]  
 SIGN: [Signature]  
 FILE: [Signature]  
 COMMENTS: [Signature]  
 INITIALS: [Signature]

Mr. William M. Araki, Superintendent  
 Department of Education  
 Leeward Oahu District Office  
 94-366 Pupupani Street  
 Waianae, Hawaii 96797

Dear Mr. Araki:

We the parents of Waianae Intermediate School Chapter 1 Program are quite concerned about Site # 10 as a proposed site for the Waianae III Elementary School. We would like to voice our oppositions about this site due to a variety of reasons mainly, the safety and welfare of the Elementary students (possible fights, hi-jacking and etc.) and betic traffic conditions.

Although no final decision has been made, we are aware that site # 10 is still on the Eis report. We feel that if site # 10 should be selected there will be strong community objections and the construction of Waianae III Elementary School will be delayed.

We are asking for your assistance and support in voicing our objections to site # 10 as a location for Waianae III Elementary School. We appreciate your help regarding this issue and anxiously await your response.

Sincerely

Natalie Cash  
 Mrs. Natalie Cash, Acting Chairperson  
 Waianae Intermediate Chapter 1  
 School Parent Advisory Committee

cc: Mr. Hugh Murakawa

GEORGE R. JEFFERSON  
COMPTROLLER



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 111, HONOLULU, HAWAII 96810

MOJO KUPUALANI  
COMPTROLLER

WEE W. TOMINAGA  
SUPERVISOR

LETTER NO. (P) 1475.6

LETTER NO.

MAY 8 1986

Mrs. Natalie Cash  
Acting Chairperson  
Waianae Intermediate Chapter 1  
School Parent Advisory Committee  
85-696 Farrington Highway  
Waianae, Hawaii 96792

Dear Mrs. Cash:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your March 10, 1986 comments to  
Mr. William Araki, Leeward District Superintendent,  
regarding the subject project.

Since the site is owned by the State and is designated  
as a public facility on the County General Plan, we cannot  
delete the site at this point. However, please be assured  
that your opposition to Site No. 10 for the reasons given,  
will be considered in the selection of the site for the  
school.

We appreciate your input into this project.

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

SM:jmt  
cc: Mr. William Araki  
Mr. Hubert Murakawa



天 一 建 業 有 限 公 司

WORLD UNION INDUSTRIAL CORPORATION LTD.

CABLE ADDRESS  
"WORLDUNION" HONG KONG

ROOM NO. 1405-1410 FLOOR  
THE SINCERE BUILDING  
173 DES VOEUX ROAD, CENTRAL  
HONG KONG

TELEPHONE:  
9-412878

GEORGE R. JANTZEN  
DIRECTOR



REGISTERED

Department of Accounting  
and General Services,  
1151 Punchbowl Street,  
P. O. Box 119,  
Honolulu, Hawaii 96810,  
U. S. A.

March 11, 1986

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

MOJO MURAKAMI  
DIRECTOR  
MIE M. TOMINAGA  
DEPUTY COMPTROLLER  
(P) 1398.6  
LETTER NO.

APR 25 1986

Mr. Kee-Kon Yih  
Director  
World Union Industrial  
Corporation, Ltd.  
The Sincere Building  
Room 1405  
173 Des Voieux Road, Central  
Hong Kong

Dear Mr. Yih:

Subject: Waianae III Elementary School  
EIS Consultation Phase

Thank you for your letter dated March 11, 1986 comment-  
ing on the subject project.

For your information, the acquisition cost estimates  
used in the cost evaluation section of the Site Selection  
Study are strictly for the purpose of cost comparison among  
the alternative sites. The actual land acquisition value of  
the site selected will be determined by negotiations based on  
a land appraisal or it will be determined by the courts  
in condemnation proceedings if agreement on the price cannot  
be reached.

Very truly yours,

*J. Jantzen*  
TEUANE TOMINAGA  
State Public Works Engineer

SM:jk

Attention: Mr. Hideo Murakami

Dear Sir,

Re: Waianae III Elementary School  
EIS Consultation Phase

We acknowledge receipt of your letter dated February 5, 1986  
together with enclosure in the above connection, contents of  
which we have duly noted.

A 145

Upon going through the Environmental Impact Statement, we find  
that out of the 10 alternative sites to be selected, sites Nos.  
5, 8 & 9 are owned by us. We have also noted from the "Physical,  
Social and Cost Criteria Summary Evaluation" (Exhibit 6) that  
the Land Acquisition values of our said sites only represent the  
1985 assessments which are far below our costs. Therefore, the  
should any of our sites be selected, we would require that the  
acquisition values be re-assessed and subject to further  
negotiation.

Thank you for your kind attention.

Yours faithfully,  
World Union Industrial Corp. Ltd.

*Kee-Kon Yih*  
Kee-Kon Yih  
Director

**APPENDIX B**

**COMMENTS AND RESPONSES**

**DURING REVIEW PERIOD**

UNITED STATES  
DEPARTMENT OF  
AGRICULTURE

SOIL  
CONSERVATION  
SERVICE

P. O. BOX 50004  
HONOLULU, HAWAII  
96850

cc: Dept. AuS

October 8, 1986

Ms. Letitia M. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, HI 96813


Dear Ms. Uyehara:

Subject: New Waianae III Elementary School, Waianae, Oahu, Hawaii

We reviewed the draft environmental impact statement for the subject project and have no comments to make.

Thank you for the opportunity to review the document.

Sincerely,

  
Richard N. Bukowski  
State Conservationist

cc: Department of Accounting and General Services  
Division of Public Works  
Planning Branch  
P.O. Box 119  
Honolulu, HI 96810-0119



DEPARTMENT OF THE ARMY  
U. S. ARMY ENGINEER DISTRICT, HONOLULU  
BUILDING 220  
FT. SHAFTER, HAWAII 96860-5440

September 26, 1986

REPLY TO  
ATTENTION OF:

Ms. Letitia M. Uyehara, Director  
Office of Environmental Quality  
Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement for the New Waianae III Elementary School, Waianae, Oahu, Hawaii. The following comments are provided.

a. A Department of the Army permit is not required for this project.

b. Flood hazards have been addressed in our previous letter, dated February 20, 1986.

Sincerely,

Kisuk Cheung  
Chief, Engineering Division

Copy Furnished:

✓ Department of Accounting and  
General Services  
State of Hawaii  
Division of Public Works  
Planning Branch  
P. O. Box 119  
Honolulu, Hawaii 96810-0119



United States Department of the Interior

FISH AND WILDLIFE SERVICE

300 A LA MOANA BOULEVARD  
P. O. BOX 50157  
HONOLULU, HAWAII 96819

WE STRAY OFFER YOU  
ES  
Room 6307  
SEP 23 1986

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Re: Environmental Impact Statement, New Waianae III Elementary  
School, Waianae, Oahu

Dear Ms. Uyehara:

We have no additional comments at this time. We appreciate the  
opportunity to comment.

Sincerely yours,

\* Ernest Kosaka  
Project Leader  
Office of Environmental Services

1-2

cc: Dept. of Acc & Gen Svcs



Save Energy and You Serve America!



DEPARTMENT OF THE NAVY

COMMANDER  
NAVAL BASE PACIFIC HARBOR  
805 THE ARCADE  
PEARL HARBOR, HAWAII 96814

WE STRAY OFFER TO  
5090  
SEP 0028/6138  
SEP 23 1986

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

DRAFT ENVIRONMENTAL IMPACT STATEMENT  
NEW WAIANAE III ELEMENTARY SCHOOL

The Draft EIS for the New Waianae III Elementary School has been reviewed  
and we have no comments to offer. Since we have no further use for the EIS,  
the EIS is being returned to your office.

Thank you for the opportunity to review the Draft EIS.

Sincerely,

T. G. CRANE  
Commander, U.S. Navy  
By Authority of the Commander

Enclosure

Copy to:  
Dept. of Accounting and General Services  
Division of Public Works  
Planning Branch  
P. O. Box 119  
Honolulu, Hawaii 96810-0119



Commander  
Fourteenth Coast Guard District

Pi'iahi Kalaniana'olaha  
Federal Building  
300 Ala Moana Blvd.  
Honolulu, Hawaii 96850  
Phone: (808) 546-2861

16475  
Serial No. 6/168  
25 Sep 1986

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, HI 96813

Dear Ms. Uyehara:

The Fourteenth Coast Guard District has reviewed the DRAFT ENVIRONMENTAL IMPACT STATEMENT for the NEW WAIANA'E III ELEMENTARY SCHOOL and has no objection or constructive comments to offer at the present time.

BT

Sincerely,

Jay Wilberman  
Environmental Protection Specialist  
District Planning Office  
By direction of Commander,  
Fourteenth Coast Guard District

GEORGE A. ARYOUSHI  
GOVERNOR



JACK K. SUWA  
CHAIRPERSON, BOARD OF AGRICULTURE  
SUZANNE D. PETERSON  
DEPUTY TO THE CHAIRPERSON

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2512

Mailing Address:  
P. O. Box 22159  
Honolulu, Hawaii 96822-0159

October 6, 1986

MEMORANDUM

To: Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control

Subject: New Waianae III Elementary School  
Draft Environmental Impact Statement (EIS) and  
Site Selection Study  
TKM: 10 Various Locations Waianae, Oahu  
Acres: Approximately 8 - 10.5

The Department of Agriculture has reviewed the Draft Environmental Impact Statement (EIS) and Site Selection Study for the New Waianae III Elementary School, and offers the following comments.

The subject document, comprised of two sections, is structured to analyze 10 different potential sites for the New Waianae III Elementary School in terms of utility and environmental impact. As illustrated in the Site Selection Study by Exhibit III-9, "Alternative Sites", four sites were eliminated from consideration for failure to meet minimum land use criteria established by the Department of Education's desire to discourage "spot zoning". The Site Selection Study states on page 16, "all lands not in the State Urban District were eliminated from further study". This criteria was established by the DOE to "...protect special resource areas and prime agricultural lands from encroachment..."

Permissible uses for the Urban District (State Land Use Commission Rules of Practice and Procedure and District Regulations, Page 45) state that "Any and all uses permitted by the Counties, either by ordinances or regulations, shall be allowed within this (Urban) District...."

Reference in the Site Selection Study to the Soil Conservation Service Soil Survey (SCS) for each specific site evaluation is essentially correct. The EIS section addresses the Agricultural Lands of Importance to the State of Hawaii (ALISH) (page 16) and Land Study Bureau Detailed Land Classification systems (Appendix A) for determining agricultural suitability. We wish to reiterate that only Site 5 and Site 8

Ms. Letitia N. Uyehara  
October 6, 1986  
Page -2-

are identified by the ALISH system as "prime" and that these two sites have been rejected. The remaining sites under consideration are not classified by the ALISH system. The Land Study Bureau has rated all remaining sites as "E" or "U". These ratings indicate very low agricultural productivity potential for these sites.

Approval of the Proposed Waianae III Elementary School, at any of the six sites within the Urban District, will not adversely affect the agricultural resources of the area nor the plans, programs and activities of the Department of Agriculture.

Thank you for the opportunity to comment.

*Jack K. Suwa*  
JACK K. SUWA  
Chairman, Board of Agriculture

cc: Mr. Steve Miwa, DAGS  
Department of General Planning

GEORGE B. ANDERSON  
COMPTROLLER



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 115, HONOLULU, HAWAII 96810

HIDEO MURAKAMI  
COMPTROLLER  
MIKE H. TORIYAMA  
DEPUTY COMPTROLLER

LETTER NO. (P)2081.6

STATE OF HAWAII  
DEPARTMENT OF DEFENSE  
OFFICE OF THE ADJUTANT GENERAL  
3913 DIAULOG ROAD, HONOLULU, HAWAII 96814-4123

HIENG

DEC 3 1986

Honorable Jack Suwa  
Chairman  
Department of Agriculture  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Suwa:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 6, 1986 comments on the subject matter. We appreciate your statement that the six alternative school sites will not adversely affect the agricultural resources of the area or the plans, programs and activities of the Department of Agriculture.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

Hs Letitia H. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, HI 96813

Dear Ms. Uyehara:

New Waianae III Elementary School  
Waianae, Oahu

Thank you for providing us the opportunity to review the above subject project.

We have no comments to offer at this time regarding this project.

Yours truly,

*Jerry H. Matsuda*

Jerry H. Matsuda  
Major, Hawaii Air  
National Guard  
Contr & Engr Officer

cc: DAGS ✓

GEORGE A. ANTONIO  
Deputy Superintendent



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 1380  
HONOLULU, HAWAII 96810

FRANCIS M. HATANAKA  
Superintendent

JOHN W. BAKER  
Deputy Superintendent



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 111, HONOLULU, HAWAII 96810

4000 WYANDOTT  
CITY OF HONOLULU

LETTER (P) 2086.6

OFFICE OF THE SUPERINTENDENT

October 20, 1986

DEC 4 1985

MEMO TO: Honorable Hideo Murakami, State Comptroller  
Department of Accounting and General Services  
F R O M: Francis M. Hatanaka, Superintendent  
Department of Education

SUBJECT: New Waianae III Elementary School  
Site Selection and EIS  
Public Review Phase  
DAGS Job No. 02-16-7716

16

Thank you for the opportunity to review and comment on the subject document dated September, 1986.

After review of the responses in Appendix A and a discussion with the DOE's Leeward District Office, we recommend Site 6 or 7.

Sites 6 and 7 are the most strategically located sites in terms of servicing the existing student population and in terms of making any service area adjustments with adjoining schools, if it becomes necessary. We also note that the two sites show very favorable results in the evaluation criteria.

FMH:W0:th

cc Mr. W. Araki  
085

Honorable Francis Hatanaka  
Superintendent  
Department of Education  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Hatanaka:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 20, 1986 comments on the subject project.

Your recommendation of Sites 6 and 7 for the reasons given is noted and will be made a part of the information provided to the Governor for final site selection.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER



GEORGE A. ANTONIAN  
DIRECTOR OF HEALTH



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3219  
HONOLULU, HAWAII 96813

**COPY**

LESLIE S. MATSUBARA  
DIRECTOR OF HEALTH

JOHN WAHEE  
DIRECTOR OF HEALTH



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 119, HONOLULU, HAWAII 96819

HIDEO MURAKAMI  
COMPTROLLER  
STATE OF HAWAII

LETTER NO. (P)2085.6

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Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 S. King St., Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Thank you for allowing us to review and comment on the draft environmental impact statement. In addition to our previous comments of February 12, 1986, we provide the following additional comments:

Sanitation

Each site should connect to the public sewer system. Also, Site 9 is not recommended due to its close proximity to a chicken farm.

Sincerely yours,

*Leslie S. Matsubara*  
LESLIE S. MATSUBARA  
Director of Health

cc: DAGS, Div. of Public Works ✓

Honorable Leslie Matsubara  
Director  
Department of Health  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Matsubara:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 22, 1986 comments on the subject project.

As indicated in the EIS, Site 9 has been eliminated from further consideration because of the unmitigable odor problem emanating from the chicken farm, and the new school will be connected to the public sewer system.

Very truly yours,

*Hideo Murakami*  
HIDEO MURAKAMI  
State Comptroller

Ms. Letitia N. Uyehara, Director  
October 23, 1986  
Page 2

Thank you for the opportunity to comment on this project.  
If you have any further questions, please call Colette Sakoda  
at 848-3226.

Sincerely,

RUSSELL N. FUKUMOTO  
Executive Director

cc: Department of Accounting and General Services  
Division of Public Works

86:PLNG/6414

October 23, 1986

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Re: Draft Environmental Impact Statement (EIS)  
for Maianae III Elementary School

The Hawaii Housing Authority (HHA) has reviewed the draft  
EIS for the subject project and offers the following comments:

1. Sites 6, 7 & 10 are adjacent to the Uluwehi-Maianae  
Community Development (Uluwehi), a 440-unit, leasehold  
project developed by the Authority. As fee owner, HHA  
is agreeable to granting any necessary sewer/water  
easements. However, consent from the Uluwehi  
homeowners association (as lessee) is also required.
2. Sufficient parking, loading, drop-off and turn-around  
areas should be provided for within the proposed  
school site to minimize the traffic impact to Uluwehi  
residents.
3. Adequate security to deter possible vandalism of  
residential property adjacent to site 10 should be  
provided. The Authority is faced with recurrent  
vandalism of vacant units bordering the Maianae  
Intermediate School. Although it is difficult to  
imagine elementary school-aged vandals, security  
patrols could inhibit such behavior.

RD  
-  
CO

GEORGE A. JAYSON  
DIRECTOR



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 115, HONOLULU, HAWAII 96810

HEOHO HUKULANI  
COMPTROLLER  
KALE H. TOMINAGA  
DEPUTY COMPTROLLER  
LETTER # (P) 2088.6

DEC 3 1986

Mr. Russell N. Fukumoto  
Executive Director  
Hawaii Housing Authority  
Department of Social Services  
and Housing  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Fukumoto:

BT  
1  
0

Subject: Waiānae III Elementary School  
Site Selection Study and Draft EIS

In response to your October 23, 1986 comments, we provide the following:

1. If Sites 6, 7, or 10 is selected, requests for easements will be coordinated with HHA and the Uluwehi Homeowners Association.
2. The new school will be designed and constructed with adequate parking, loading, drop-off, and turn-around areas on-site.
3. If Site 10 is selected, a 6-foot high fence will be installed between the Uluwehi property and the school to deter vandalism of the residential property.

Thank you for your input on this project.

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

SM:jnc

403  
STP 6.1626

October 9, 1986

MEMORANDUM

TO: The Honorable Leticia N. Dyehzra, Director  
Office of Environmental Quality Control

FROM: Director of Transportation

SUBJECT: DEIS-HEI MAIAHAE III ELEMENTARY SCHOOL  
MAIAHAE, OAHU

After reviewing the subject DEIS, we found it lacked a sufficient analysis to determine traffic impacts. Therefore, we suggest that a Traffic Impact Analysis Report (TIAR) be prepared and submitted for our review. We feel a TIAR is necessary because of the possible increase of turning movements onto Farrington Highway. Measures to mitigate any adverse impacts should be part of the analysis.

We would like to point out that Farrington Highway is subjected to frequent flooding in the vicinity of the proposed school site. Therefore, proper drainage considerations should be incorporated into any necessary roadway improvements during the design stage.

The DEIS was confusing in that it states (on Page 8 of the Site Selection Study, Item D): "Alternative 4 has been chosen by Department of Education as the optimum solution...". While Exhibit III-5 indicates Alternative 4 was eliminated from consideration. Our preference is for Alternative 1 or 2.

All plans for work within the State highway right-of-way must be submitted for review and approval by our Highways Division and the developer will bear the cost for any improvements.

Thank you for this opportunity to provide comments.

DT:ko  
cc: HWY-STP(dt)  
DRGS, Div. of Public Works  
*Wayne J. Yamasaki*  
Wayne J. Yamasaki

JOHN HAIHEE  
COMPTROLLER



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
P. O. BOX 111, HONOLULU, HAWAII 96810

HIDEO MURAKAMI  
COMPTROLLER  
STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

LETTER NO. (P)2110.6

Honorable Wayne Yamasaki  
Page 2

Let. No. (P)2110.6

4. Work Coordination: Any work within the State highway right-of-way will be coordinated with your department for proper review and approvals during the design phase.

Very truly yours,

  
HIDEO MURAKAMI  
State Comptroller

Honorable Wayne Yamasaki  
Director  
Department of Transportation  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Yamasaki:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

In response to your October 9, 1986 comments on the subject project, we offer the following:

1. Farrington Highway Turning Movements: We discussed the project with your staff and mutually agreed that a Traffic Impact Analysis Report (TIAR) is not necessary. The addition of Waianae III Elementary School within walking distance of a substantial number of students should reduce the number of cars transporting children to school. Therefore, we feel the turning movements on Farrington Highway should decrease.
2. Farrington Highway Flooding: The new school will be masterplanned and designed to include proper drainage facilities. However, no improvements are planned for Farrington Highway.
3. Confusion: We apologize for the confusion caused by the use of the word "Alternative" in two different sections of the Site Selection Study. The Alternative 4 discussed on page 8 is the DOE's optimum solution to accommodate the projected enrollment growth by constructing a new elementary school. The Alternative Site 4, shown on Exhibit III-9, is one of ten sites selected for evaluation and subsequently eliminated from consideration.

STATE OF HAWAII  
DEPARTMENT OF PLANNING AND  
ECONOMIC DEVELOPMENT  
P.O. Box 2339  
Honolulu, Hawaii 96804

Ref. No. I-536

October 31, 1977

MEMORANDUM

TO: Ms. Letitia A. Uyezima, Director,  
Office of Environmental Quality Control

FROM: Earl L. Keith *Earl L. Keith*

SUBJECT: Sanitization III Elementary School OHS

We have reviewed the subject draft environmental impact statement (EIS) and find that the siting of the elementary school has been adequately evaluated.

Thank you for the opportunity to review and comment on the subject document.

cc:  Dept. of Accounting and General Services,  
Div. of Public Works, Planning Branch



Ms. Letitia Uyebara  
Page 2

October 21, 1986

4. On page 46, the words, "from both flag access points", should be deleted from the second sentence. In addition, the words, "the site", should be replaced with "Noholio Road" in the second sentence.

5. On page 87, for Site 1, the cost of installing 200 lineal feet of 8-inch water line from Makaha Valley Road to the end of the flag access should be deleted because it is included in the cost for the alternate design where a 12-inch water line would be installed from Farrington Highway to the site access along Makaha Valley Road.

6. On page 88, for Site 1, the 4,300 lineal feet of 8-inch water line along Makaha Valley Road should be changed to 3,000 lineal feet and the descriptive words should be modified to read, "Install an 8-inch water line along Makaha Valley Road from Farrington Highway to Noholio Road." The total cost should be recalculated and the off-site development cost estimate for Site 1 should be changed to reflect the change in the pipe length.

7. On page 95, the on- and off-site water development costs, as well as the subtotal and total costs, for Site 1 should be changed to reflect the changes as mentioned in our comments 5 and 6.

If you have any questions, please contact Lawrence Whang at 527-6138.

Very truly yours,

KAZU HAYASHIDA  
Manager and Chief Engineer

cc: Dept. of Accounting  
and General Services

October 21, 1986

Ms. Letitia N. Uyebara  
Director  
Office of Environmental  
Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyebara:

Subject: Your Letter of September 19, 1986 on the Waianae III  
Elementary School Environmental Impact Statement

Thank you for the opportunity to review the environmental document for the proposed Waianae III Elementary School.

We offer the following comments:

1. Water services exist only at alternative sites 6, 7, and 10. Should site 6 or 7 be selected and water is made available, the applicable Water System Facilities Charges will be adjusted to reflect the existing services at the specific site. Site 10 will require information on existing water demand and proposed water demand so we can determine the adequacy of the existing service to the Waianae Intermediate School Complex.
2. The sites are served by our 242 foot reservoir system with the service limit at the 142 foot elevation.
3. On page 28, the last two sentences should be deleted. The installation of an 8-inch or a 12-inch water line may not apply for every alternative school site. The actual sites should be determined by making a detail hydraulic analysis of the water system requirements for the school sites.

JOHN WAHEE  
KAWAIIAN  
HONOLULU



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 118, HONOLULU, HAWAII 96810

MOLO HAWAII  
KAWAIIAN  
HONOLULU

LETTER # P12106.6

PB 86-832

SEP 29 1986

Mr. Kazu Hayashida  
Manager and Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
Honolulu, Hawaii

Dear Mr. Hayashida:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 21, 1986 comments regarding the availability of water service and clarifications on the offsite waterline requirements for the alternative sites. We appreciate the information provided and will revise the EIS accordingly.

Upon the selection of the final site, water requirements for this new school will be coordinated with your office during the master plan and design phases.

Very truly yours,

*J. Tomiyama*  
TEVANE TOMINAGA  
State Public Works Engineer

SM:jnt

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality  
Control  
465 S. King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Subject: Draft EIS for New Waianae III  
Elementary School

We have reviewed the subject draft EIS and have no comments.

Thank you for the opportunity to review the document.

Very truly yours,

HERBERT K. MOROOKA  
Director and Building Superintendent

TH:jo  
CC: J. Harada  
Dept. of Accounting &  
General Services



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



DONALD A. CLEGG  
Chief Planning Officer  
GENE CONNELL  
Department of General Services

JB/DGP 9/86-9651

October 1, 1986

Ms. Letitia N. Uyebara, Director  
Office of Environmental Quality Control  
State of Hawaii  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyebara:

New Waianae III Elementary School  
Draft Environmental Impact Statement  
Your Letter Dated September 19, 1986

Thank you for the opportunity to review this modified  
draft environmental impact statement (dEIS) for the subject  
proposal.

Other than to suggest that the List of Necessary  
Approvals from Governmental Agencies be inserted back into  
the document, we have no comments on this proposal at this  
time.

Please send us a copy of the Final EIS when that  
becomes available.

Sincerely,

*Donald A. Clegg*  
DONALD A. CLEGG  
Chief Planning Officer

cc: DAGS

DP-15

JOHN WAHINE  
XXXXXXXXXXXXX  
XXXXXXXXXXXXX



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 111, HONOLULU, HAWAII 96810

WALANAE III ELEMENTARY SCHOOL

WAIANA E. TOMINAGA

TEUANE TOMINAGA

LETTER NO. (P) 2084.6

DEC 1 1986

Mr. Donald A. Clegg  
Chief Planning Officer  
Department of General Planning  
City and County of Honolulu  
Honolulu, Hawaii

Dear Mr. Clegg:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 1, 1986 comments on the subject  
project.

The List of Necessary Approvals from Governmental Agencies  
is included in the Draft EIS on page 16 and will be included in  
the Final EIS as well. We apologize if the page was missing  
from your copy of the Draft EIS.

Very truly yours,

*Teuane Tominaga*  
TEUANE TOMINAGA  
State Public Works Engineer

SM:jnt

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

140 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 533-1151



FRANK F. PAW  
DIRECTOR

MICHAEL M. MOON  
DIRECTOR  
ROBERT MITSUO  
DEPUTY DIRECTOR



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

JOHN BAUGH  
DIRECTOR

MOLO KUPAANI  
DEPARTMENT  
STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

LETTER NO (P) 2082.6

DEC 1 1986

October 10, 1986

Ms. Letitia M. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Subject: Environmental Impact Statement  
New Waianae III Elementary School

Thank you for the opportunity to review/comment on the Draft EIS report for the proposed elementary school facilities in Waianae, Oahu.

We note that an elementary school site is not indicated in the EIS but all ten sites are the possible school sites. However, only Site 10 is presently shown on the Waianae Public Facilities Map and is therefore consistent with the policies in the Development Plan Map for the area. As you are aware, should any site except Site 10 be selected, an amendment will be required for conformity with the Development Plan/Public Facilities Map.

The design of a new elementary school would significantly decrease the enrollment of existing Makaha, Waianae and Leihoku Schools. The development of a new school facility will not only be manageable but also would be educationally and socially beneficial to the students.

We will retain the EIS report for our records.

Sincerely,  
  
MIKE MOON

cc: Department of Accounting and  
General Services

Mr. Mike Moon  
Director  
Department of Housing and  
Community Development  
City and County of Honolulu  
Honolulu, Hawaii

Dear Mr. Moon:

Subject: Waianae III Elementary School  
Site Selection Study and Draft EIS

Thank you for your October 10, 1986 comments on the subject project.

As indicated in the EIS, if the school site selected is other than Site 10, an amendment to the Development Plan/Public Facilities Map will be requested during the masterplanning phase.

We appreciate your input for this project.

Very truly yours,

TEUANE TOMINAGA  
State Public Works Engineer

SM:jnt





POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

1415 SOUTH BERKELENA STREET  
HONOLULU, HAWAII 96814 AREA CODE (808) 522-3111



DOUGLAS G. GIBB  
CHIEF  
WARREN FERREIRA  
DEPUTY CHIEF

CHRISTOPHER S. FARR  
MAJOR

CONFERENCE DI-LK

October 6, 1986

Ms. Letitia N. Uyehara, Director  
State of Hawaii  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Subject: Waianae III Elementary School Draft EIS

We have reviewed the material on Waianae III Elementary School and have no objections to the proposed project.


Sincerely,

DOUGLAS G. GIBB  
Chief of Police

BY  
WARREN FERREIRA  
Deputy Chief of Police

cc: Department of Accounting  
and General Service  
Division of Public Works  
Planning Branch

Hawaiian Telephone Company  
P.O. Box 2300  
Honolulu, Hawaii 96811  
Telephone (808) 546-1511

**HAWAIIAN TEL** 

October 10, 1986

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

Dear Mr. Murakami:

Waianae III Elementary School  
Site Selection and EIS  
Public Review Phase  
DAGS Job No. 02-16-7716

We have reviewed the site selection and EIS for the Waianae III Elementary School and find that the revised draft site selections and EIS should not have any adverse environmental effect on our existing facilities, nor do we foresee any problems in providing telecommunications service to the proposed sites.

There are existing telephone lines located in public thoroughfares either adjacent to or a short distance from all of the six alternative school sites. Aerial lines exist at sites 1 and 2. Underground lines at site 9, and both aerial and underground facilities at sites 6, 7 and 10.

In areas where aerial telephone facilities exist, we will install additional poles as needed and extend the service lines overhead to the school sites. If aerial service is undesirable, then cost for underground services (support structures) should be included in your budget. The cost can be determined after the final site is selected and detailed plans are generated.

Where underground facilities now exist, we will extend the service lines underground. Provisions for the installation of a new conduit system within the project site should be included in your budget.

Thank you for the opportunity to comment on this project. If you have any questions, please call me at 546-3464.

Sincerely,



Walter M. Matsumoto  
Oahu Engineering &  
Construction Manager

HAWAIIAN ELECTRIC COMPANY, INC. • PO BOX 2750 • HONOLULU, HI 96840-0001

ENV 2-1  
NV/G



Banner Munge, Ph.D., P.E.  
Manager  
Environmental Department  
(808) 548-6800

September 30, 1986

Ms. Leticia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Subject: Environmental Impact Statement for New Waianae III  
Elementary School

We have reviewed the above Environmental Impact Statement and believe the discussion on the availability of electric power found on Page 27 of the Site Selection Study is adequate. On receipt of the service request, we anticipate no problems in providing electric service.

Sincerely,



cc: Dept. of Accounting and General Services



# University of Hawaii at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 948-7261

October 23, 1986  
RE:0447

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96813

Dear Ms. Uyehara:

Draft Environmental Impact Statement  
Waianae III Elementary School  
Waianae, Oahu

The above cited document addresses the environmental impacts relative to the development of a new elementary school in Waianae, Oahu. This review was prepared with the assistance of Kem Lowry, Urban and Regional Planning; Matthew Spriggs, Anthropology; and Michael Tokushige, Environmental Center.

### Site Criteria

We note that the criteria used in the evaluation of alternative sites are all weighted on an equal basis. It does not seem appropriate to equate such items as safety factors, equal to that of land clearing. Giving a weighted factor to each criteria may provide increased insight and a more reasonable approach to estimating the sites overall value.

### Pedestrian and Auto Traffic Safety

Since Farrington Highway is a constant in all the potential sites, special attention to both pedestrian and auto safety is needed. In particular, we note that Kaulawaha Road and Ala Aka intersect Farrington Highway relatively close to one another and to sites 6 and 7. It seems likely that greater congestion on Farrington Highway will occur at the intersection of these two roads if either Site 6 or 7 is selected, thereby creating a potentially dangerous safety situation. If either Site 6 or 7 is selected, the increased traffic congestion at these intersections should be taken into consideration in the planning and cost analysis of the project. Also in reference to Sites 6 and 7, there should be special attention directed to the construction of walkways. The Draft EIS states (page 64) that a walkway "will" be provided on the school side of Ala Aka. However, on page 59 of the same document, it states that walkways "should" be provided along Ala Aka as well as Kaulawaha Road and Mahinuu Road. Does this mean walkways "will" be provided or only that they "should" be provided? For additional student and traffic safety at Sites 6 and 7, the elimination of parked cars along Ala Aka during school hours should be considered.

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Ms. Letitia N. Uyehara

-2-

October 23, 1986

### Archaeology

Site 8 was eliminated from further consideration because of the presence of archaeology finds of research potential. What information was used in making this decision? Were records used or was sub-surface sampling done? Will this type of information be used in the evaluation of the remaining sites? Special attention should be focused on Sites 6 and 7 since their location is adjacent to Site 8 which is in historic Site 1181. Simple visual observation is not adequate to determine a site's potential archaeological importance due to surface disturbances. Many archaeological finds may be in the sub-surface, and "sinkholes" in coral outcrops. If Sites 6 and 7 prove not to be of archaeological importance and 6 or 7 becomes a chosen site, what steps would be taken to prevent possible destruction of the adjacent historical Site 1181?

### Discomfort to Residents

During Construction: Construction discomfort to residents appears to be the greatest at Site 1. Residents' homes are directly next to the construction site. Sites 6 and 7 show the least potential for residential discomfort. Site 10 will cause a nuisance to the adjacent intermediate school. More information is needed with regard to the displacement of residents at Sites 6 and 7. Where will they be relocated and how much assistance would be available to these residents?

After School is Constructed: At Sites 1 and 2, the problems of noise, trash, and possible trespassing are greatest because residents' lots back up to the school lot. These issues are not that serious at Sites 6 and 7 because streets surround the school lot. Site 10 has the least possible residential nuisance factors because the intermediate school borders one side and the Civic Center borders the other.

### Pest Control Needs

We note that a wetland is adjacent to Sites 6 and 7. Will this pose a long-term mosquito or other pest problem that will need to be considered in the maintenance or management costs of a school at either of these sites.

Control methods for the rodent population that will be forced from field areas during initial land clearing activities should be included in planning for this project.

### Land Use Issues

Does the agriculturally zoned land adjacent to Sites 6 and 7 pose any current or anticipated security, nuisance, or landscape maintenance problems to the school? What are the current and projected uses of this land? Will the presence of the school in this area restrict the future development of this agriculturally zoned land?

### Landscaping

We assume that the school landscaping effort includes a grassed playground space and will require considerable water for irrigation. Does the possibility of using local ground water been considered? We realize that it is brackish but some landscaping species may be sufficiently salt tolerant that local supplies of brackish water might be used to augment the supply of potable water. If insufficient soil cover is available for landscaping, the cost of imported top soil for landscaping should be included in the cost estimates for the facility.

Ms. Letitia N. Uyehara

-3-

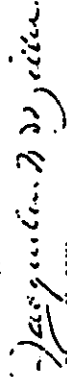
October 23, 1988

Architectural Design

In the design of the school structures, regardless of the site eventually selected, we urge that the site of the structures and their architectural design take into account the prevailing wind directions and any sea breezes so as to maximum natural air flow and comfort level in the classrooms and offices. In this regard, does any one site offer a significantly greater comfort level than another? If so we would suggest that such a "comfort rating" be ranked appropriately high. No one, adult or child, can achieve their maximum academic potential if daily environmental conditions create unpleasant working conditions. Many days of over 90 degree weather in a classroom reduces the lesson comprehension level and significantly lowers the teaching effectiveness. We urge that environmental planning be given a high priority in the site selection process.

We appreciate the opportunity to review this DEIS and look forward to receiving your response.

Yours truly,

  
Jacquelin Miller  
Acting Associate Director

DP  
I  
N

cc:  DAGS  
Patrick Takahashi  
Kem Lowry  
Matthew Spriggs  
Michael Tokushige



JOHN VALIIEE  
DIRECTOR



STATE OF HAWAII  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
DIVISION OF PUBLIC WORKS  
P. O. BOX 114, HONOLULU, HAWAII 96810

MOHO MAIWAHANA  
COMMUNITY DEVELOPMENT

LETTER NO. (P)2125.6

DEC 16 1986

Ms. Jacquelin Miller  
Acting Associate Director  
Environmental Center  
University of Hawaii at Manoa  
2550 Campus Road, Crawford 317  
Honolulu, Hawaii 96822

Dear Ms. Miller:

Subject: Wai'anae XII Elementary School  
Site Selection Study and Draft EIS

In response to your October 23, 1986 comments, we offer the following:

**Site Criteria:** The evaluative criteria is not weighted because weighting is highly subjective, difficult to defend, and could easily be construed as favoring a specific site. Moreover, the present methodology which was developed over the years has proven to be successful in selecting many sites for schools and other government facilities.

**Pedestrian and Auto Traffic Safety:** Pedestrian and auto traffic safety were evaluated in the EIS. We anticipate that the new school will cause traffic on Farrington Highway to increase near the school and simultaneously decrease near the Makaha and Wai'anae Elementary Schools. Our discussions with the State Department of Transportation and County Department of Transportation Services did not indicate that traffic on Farrington Highway for Site 6 or 7 will create a dangerous safety situation. If it does become a problem in the future, traffic signals can be installed.

A sidewalk for public roads along the school site will be constructed by the school. While sidewalks are desirable for all roadways and therefore "should" be constructed, they are not essential for pedestrian safety. Thus, the "will" on page 64 will be revised to "should".

Ala Akau Street is owned by the Hawaii Housing Authority and leased by the Uluwehi Homeowners Association.

Ms. Jacquelin Miller  
Page 2

Ltr. No. (P)2125.6

Therefore, the elimination of parked cars is subject to negotiation and will be considered if Site 6 or 7 is selected.

**Archaeology:** As indicated in the Site Selection Study, Site 8 was eliminated from further consideration because it was located within Historic Site No. 1181, which is listed on the Hawaii and National Registers of Historic Places.

If either Site 6 or 7 is selected, (1) an archaeological reconnaissance survey will be made and the need for any additional surveys for the site will be discussed with the DLNR and (2) a fence will be provided between the school and the Historic Site No. 1181.

Discomfort To Residents:

**During Construction:** As indicated in the Draft EIS, construction discomforts are short-term impacts which will be controlled by compliance with government regulations. Relocation assistance is unique since it varies for each displacee and the conditions when relocation is made. However, please be assured that each displacee will be accommodated fully in accordance with the requirements of Chapter 111, Hawaii Revised Statutes (HRS), Assistance to Displaced Persons.

**After School Is Constructed:** The school students and operations may create noise and other problems for nearby residential units. These problems can be minimized by appropriate planning of the school and use of fencing.

**Pest Control Needs:** The wetland adjacent to Sites 6 and 7 is a seasonal occurrence which should not pose a long-term mosquito or other pest problem to the school. Standard DOH rules and regulations require contractors to assess the rodent population before the start of construction and to initiate methods of controlling encroachment and surrounding residential areas. This item will be addressed during design of the school.

**Land Use Issues:** The agricultural land adjacent to Sites 6 and 7 is not anticipated to pose unusual security, nuisance, or landscape maintenance problems to the school. The land is vacant and development plans are not currently known. Since the school is a permitted use in the agricultural district, it should not restrict future development of the adjacent land.

Ms. Jacquelin Miller  
Page 3

Ltr. No. (P)2125.6

Landscaping: The school will be provided with a grassed playground space which will require irrigation. However, there are no plans to use brackish water for irrigation because of the cost of developing, operating, and maintaining a separate water system.

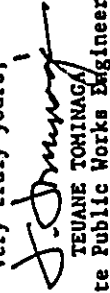
As indicated in the Site Selection Study, importing top soil and fine grading will be relatively equal for all sites. Therefore, cost estimates for comparison were not included in the evaluations.

Architectural Design: Please be assured that the selection of a site, development of the facilities master plan, and design of facilities will take into account the land-sea breezes, prevailing wind direction, exposure to sunlight, and other factors relating to the proper design of school facilities.

Since all of the sites have similar micro-climates, no site offers a significantly greater comfort level than another.

B-24

Very truly yours,



TEUANE TOMING  
State Public Works Engineer

SM:jnt



University of Hawaii at Manoa

Water Resources Research Center  
Holmes Hall 233 - 240 Dole Street  
Honolulu, Hawaii 96822

1 October 1988

Ms. Letitia N. Uyehara, Director  
Office of Environmental Quality Control  
465 South King Street, Room 104  
Honolulu, Hawaii 96816

Dear Ms. Uyehara:

Subject: Draft Environmental Impact Statement, "Waianae III"  
Elementary School, September 1988

We have reviewed the subject DEIS and have no comment to offer.  
Thank you for the opportunity to comment. This material was reviewed by  
WRRRC personnel.

Sincerely,

*Edwin T. Murabayashi*

Edwin T. Murabayashi  
EIS Coordinator

ETM:jm

cc: DAGS

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天 一 建 業 有 限 公 司

WORLD UNION INDUSTRIAL CORPORATION LTD.

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HONG KONG  
TELEPHONE: 5-412878

October 15, 1986

Department of Accounting and General Services,  
Division of Public Works,  
P. O. Box 119,  
Honolulu, Hawaii 96810-0119,  
U. S. A.

Attention: Mr. Hideo Murakami,  
State Comptroller

Dear Sir,

Re: New Waianae III Elementary School,  
Site Selection and EIS,  
Public Review Phase,  
DAGS Job NO. 02-16-7716

We acknowledge receipt of your letter dated September  
29, 1986 in the above connection, enclosing therewith a copy of  
the revised draft site selection and EIS, contents of which have  
been duly noted.

It has come to our attention that the number of alter-  
native sites has been reduced from ten to six, among which site  
No. 9 is owned by us. We have no comments to offer except that  
the land acquisition value of our site if selected should be  
determined by negotiation.

Thank you for your kind attention.

Yours faithfully,  
World Union Industrial Corp., Ltd.

*Kee-Kon Yih*  
Kee-Kon Yih  
Director

**APPENDIX C**  
**SITE SELECTION STUDY**

**SITE SELECTION STUDY  
"WAIANAE III" ELEMENTARY SCHOOL**

**Prepared for the  
Department of Accounting and General Services  
State of Hawaii**

**Prepared by**

**DHM inc.**

**September 1986**

TABLE OF CONTENTS

	<u>Page</u>
I. NEED ASSESSMENT . . . . .	1
A. PRESENT CONDITIONS . . . . .	1
B. FUTURE PROJECTION . . . . .	4
C. ALTERNATIVES . . . . .	4
1. Adjustment in Existing Service Area . . . . .	6
2. Bussing Students to Schools Outside of Area . . . . .	6
3. Increasing Capacity and Size of Existing Schools . . . . .	6
4. Construction of a New "Waianae III" Elementary School . . . . .	7
D. WAIANAЕ III ELEMENTARY: PROJECT OBJECTIVES AND DESCRIPTION . . . . .	8
II. SITE SELECTION METHODOLOGY . . . . .	10
III. BROADSCALE ANALYSIS . . . . .	12
A. SERVICE AREA . . . . .	12
B. SLOPES . . . . .	12
C. LAND USE REGULATIONS . . . . .	16
D. HISTORIC SITES . . . . .	18
E. TSUNAMI AND FLOOD ZONES . . . . .	18
F. PRESENTLY DEVELOPED AREA . . . . .	18

	<u>Page</u>
IV. SITE EVALUATION CRITERIA . . . . .	25
A. PHYSICAL CRITERIA . . . . .	25
1. Site Characteristics . . . . .	25
2. Roadways and Utilities . . . . .	27
3. Accessibility . . . . .	30
4. Environmental Factors . . . . .	33
B. SOCIAL CRITERIA . . . . .	35
1. Existing Use/Displacement . . . . .	35
2. Agricultural Lands . . . . .	35
3. Land Ownership . . . . .	36
4. Proximity to Student Population . . . . .	36
5. Visibility/Identity . . . . .	37
6. Interference with Institutions . . . . .	37
7. Commercial Attractions . . . . .	38
C. COST CRITERIA . . . . .	38
1. Land Acquisition Cost . . . . .	38
2. On-Site Development Cost . . . . .	39
3. Off-Site Development Cost . . . . .	39
4. Bus Subsidy Cost . . . . .	39
5. Campus Aide Cost . . . . .	39

	<u>Page</u>
V. EVALUATION OF ALTERNATIVE SITES . . . . .	40
A. PHYSICAL AND SOCIAL CRITERIA . . . . .	40
SITE 1 . . . . .	43
SITE 2 . . . . .	49
SITE 6 . . . . .	55
SITE 7 . . . . .	61
SITE 9 . . . . .	66
SITE 10 . . . . .	71
B. COST CRITERIA . . . . .	84
1. Land Acquisition Cost . . . . .	84
2. On-Site Development Cost . . . . .	85
3. Off-Site Development Cost . . . . .	88
4. Bus Subsidy Cost . . . . .	91
5. Campus Aide Cost . . . . .	93



EXHIBITS

	<u>Page</u>
I-1	EXISTING SERVICE AREAS . . . . . 2
I-2	WAIANAE COMPLEX SERVICE AREA . . . . . 3
I-3	1989 ENROLLMENT PROJECTION COMPARED WITH THE ACTUAL ENROLLMENT AND SCHOOL CAPACITIES . . . 5
I-4	PROPOSED SERVICE AREAS . . . . . 9
III-1	PROPOSED WAIANAE III ELEMENTARY SCHOOL SERVICE AREA . . . . . 13
III-2	MODIFIED SERVICE AREA . . . . . 14
III-3	SLOPE . . . . . 15
III-4	LAND USE REGULATIONS . . . . . 17
III-5	HISTORIC SITES . . . . . 19
III-6	TSUNAMI AND FLOOD ZONES . . . . . 20
III-7	PRESENTLY DEVELOPED AREA . . . . . 21
III-8	COMPOSITE OF BROADSCALE FACTORS . . . . . 23
III-9	ALTERNATIVE SITES . . . . . 24
V-1	ALTERNATIVE SITES . . . . . 41
V-2	ALTERNATIVE SITE 1 . . . . . 44
V-3	PHOTOS OF SITE 1 . . . . . 45
V-4	ALTERNATIVE SITE 2 . . . . . 50
V-5	PHOTO OF SITE 2 . . . . . 51
V-6	ALTERNATIVE SITE 6 . . . . . 56
V-7	PHOTOS OF SITE 6 . . . . . 57

		<u>Page</u>
V-8	ALTERNATIVE SITE 7 . . . . .	62
V-9	PHOTOS OF SITE 7 . . . . .	63
V-10	ALTERNATIVE SITE 9 . . . . .	67
V-11	PHOTOS OF SITE 9 . . . . .	68
V-12	ALTERNATIVE SITE 10 . . . . .	72
V-13	PHOTOS OF SITE 10 . . . . .	73
V-14	EXISTING ELECTRIC DISTRIBUTION LINES . . . . .	77
V-15	EXISTING TELEPHONE LINES . . . . .	78
V-16	COMMERCIAL CENTERS . . . . .	79
V-17	EXISTING PUBLIC WATER SYSTEM . . . . .	80
V-18	EXISTING PUBLIC WASTEWATER SYSTEM . . . . .	81
V-19	EXISTING DRAINAGE FACILITIES . . . . .	82
V-20	SUMMARY EVALUATION: PHYSICAL & SOCIAL CRITERIA .	83
V-21	SITE ACCESS ROADS . . . . .	90
V-22	SUMMARY EVALUATION: PHYSICAL, SOCIAL AND COST CRITERIA . . . . .	95

## CHAPTER I. NEED ASSESSMENT

### A. PRESENT CONDITIONS

The Makaha and Waianae residents are serviced by three large elementary schools: Makaha Elementary, Waianae Elementary and Leihoku Elementary. The service areas are shown on Exhibit I-1.<sup>1</sup> Makaha Elementary is currently overcrowded and has virtually no campus space to accommodate additional classroom buildings except the playground area. Current planning efforts have focused on adjusting service areas to provide relief for Makaha by shifting students to Waianae and Leihoku Schools.

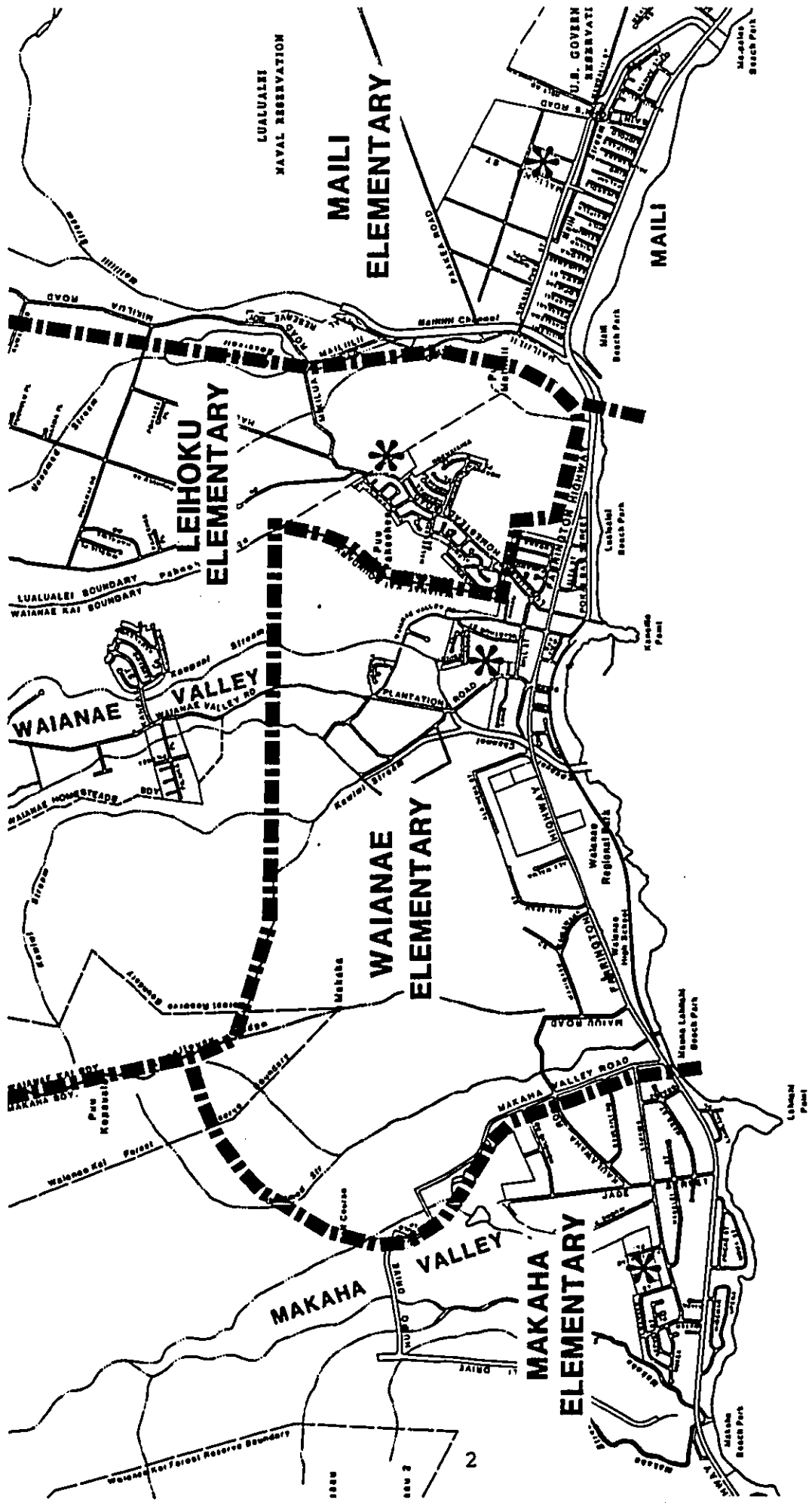
Waianae Elementary School, built in 1931 with 4 classrooms, was the first school in the area. Today Waianae Elementary has 67 classrooms, some dating back to 1937. Eighteen (18) permanent classrooms are in badly deteriorated and substandard condition. A new 8-classroom building was completed in 1982 as part of the overall plan to replace the substandard facilities. However, the consistent large enrollment due to the overflow from Makaha Elementary has made it necessary to use many of the substandard facilities. Department of Education (DOE) will not schedule the facilities for removal until they are certain that the classrooms will not be needed.

Leihoku Elementary was opened in 1980 which helped reduce the crowded conditions at Waianae Elementary. It has been built incrementally to accommodate growth in the Leihoku service area and the additional transfer of students from Waianae Elementary. The existing site has been developed to capacity. The State has been negotiating with Hawaiian Home Lands to acquire adjacent lands but they are at an impasse on land appraisal.

These three schools (Makaha, Waianae and Leihoku) in the Waianae/Makaha area service a large number of students requiring special programs to raise their achievement level. Over 27.5% of the students have 2 or more problems in the areas of language, auditory, visual, gross or fine motor skills; 28% of the area residents are on welfare assistance;

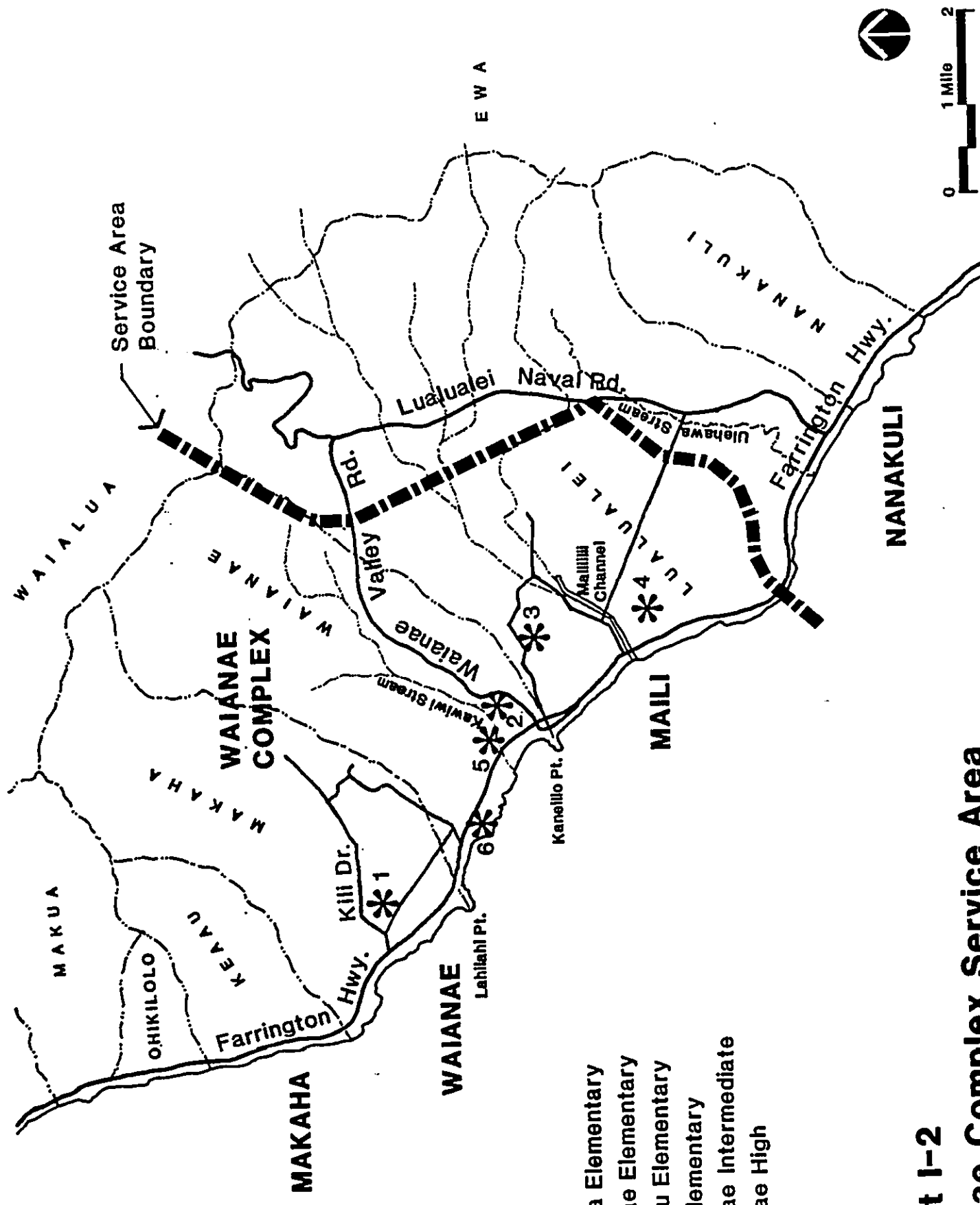
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<sup>1</sup>These schools are part of the Waianae Educational Complex, which is the system of elementary and intermediate schools feeding into Waianae High School. The Waianae complex serves the residents from Maili to Makua (see Exhibit I-2), and consists of Makaha, Waianae, Leihoku and Maili Elementary Schools, Waianae Intermediate and Waianae High School.



\* Elementary School

**Exhibit I-1  
Existing Service Areas**



1. Makaha Elementary
2. Waianae Elementary
3. Leihoku Elementary
4. Maili Elementary
5. Waianae Intermediate
6. Waianae High

**Exhibit I-2**  
**Waianae Complex Service Area**

in 1983, over 30% of the grade 4 students tested were below the national average in both math and reading; and the percent of high school graduates is 60% in contrast to the statewide average of 74%. These statistics are reflected in the fact that there are 49 supplementary teachers assigned to these 3 schools to meet the remedial and special needs of the students.

Enrollment in the Waianae Complex has ranged between 5,800 and 6,280 during the past ten years. There are currently 4,000 housing units in the area, and there are sizable tracts of lands in Makaha and Waianae Valleys that are zoned urban and designated for residential development.

**B. FUTURE PROJECTION**

Enrollment growth in the Waianae Complex is projected to continually increase through the year 2000. Most of the proposed residential development in the area is located in Makaha Valley where there is a high proportion of vacant residential-zoned land.

1989 enrollment projections for Makaha and Leihoku Schools are considerably higher than each schools respective capacity.<sup>2</sup> The projection for Waianae School is high also, considering the school's capacity excluding the 18 substandard classrooms. These figures are compared on Exhibit I-3.

Based on existing enrollments, population projections, future developments, and other factors, DOE has established the design enrollments for the existing Waianae/Makaha area schools as shown in Exhibit I-3. In all schools, the design enrollment is significantly higher than the current capacity. This indicates an increased problem of overcrowding and insufficient facilities at the three existing elementary schools serving Makaha and Waianae.

**C. ALTERNATIVES**

To accommodate the projected enrollment growth in the Waianae/Makaha area, considering the capacities of the existing elementary schools, several alternatives were evaluated by the DOE.

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<sup>2</sup>Capacity is the number of students which can be accommodated on an individual campus with existing permanent and temporary facilities. It is based on the number of classrooms times the number of students, based on a 26:1 student to teacher ratio for regular education and 15:1 ratio for special education, plus considerations for supplementary education classrooms.

EXHIBIT I-3

1989 ENROLLMENT PROJECTION COMPARED WITH  
THE ACTUAL ENROLLMENT AND SCHOOL CAPACITIES

SCHOOL	ACTUAL ENROLLMENT			1989 ENROLLMENT PROJECTION	CAPACITY	DESIGN ENROLL- MENT****	PEAK ENROLL- MENT****
	1982	1983*	1984 1985				
Makaha	1,049	900	929 917	1,082	914	1,200	1,320
Waianae	1,136	1,001	949 1,016	971	1,275** OR 825***	1,250	1,375
Leihoku	351	671	688 660	967	769	1,160	1,275

\*Adjustments made to service areas.

\*\*Including 18 substandard classrooms.

\*\*\*Excluding 18 substandard classrooms.

\*\*\*\*Design enrollment is the stabilized number of students to be served by a school, based on the existing or proposed service area and grade organization. Design based on the existing or proposed housing construction and is normally less than enrollment allows for proposed housing construction when enrollment exceeds the design the "peak" enrollment.

\*\*\*\*\*peak enrollment is a temporary situation when enrollment exceeds the design enrollment.

1. Adjustment in Existing Service Areas

Projections indicate each school will be operating above capacity by 1989, using all suitable classrooms. Therefore, the adjustment of service area boundaries between the Waianae/Makaha area schools will not alleviate overcrowded conditions resulting from projected population growth.

2. Bussing Students to Schools Outside the Area

To accommodate the projected enrollment growth, 500 to 950<sup>3</sup> students would need to be bussed to other schools based on design enrollment figures from Exhibit I-3. The closest schools with significant surplus classrooms available to handle these students are in the Pearl City area, a distance of about 25 miles from Makaha Elementary.

Although DOE is not currently bussing any student out of his/her respective service area, there is no DOE regulation or standard regarding maximum bussing distance. However, DOE would be hesitant in bussing students so far from the Waianae Educational Complex area. Also, the travel distance would limit each bus to making 1 round trip per day versus the 2 trips made now by each bus servicing the Waianae area schools. This would result in an increased bussing cost per child per day of over 200%.

This alternative is, therefore, quite costly as well as undesirable due to the potential social impact of bussing children to schools so far away.

3. Increasing Capacity and Size of Existing Schools

Increasing the size of Makaha, Waianae, and Leihoku to enrollments of 1,200, 1,250 and 1,160 respectively, with peak enrollments around 1,300, would require additional classroom facilities at each school. Makaha Elementary would need 15 permanent and 5 portable classrooms, costing \$2,250,000 (1984 prices). However, there is not enough available space on campus to site these structures.

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<sup>3</sup>Number depends on existence and usability of 18 substandard classrooms at Waianae Elementary.



Waianae Elementary would need 17 permanent classrooms (replacing the 18 substandard ones) to meet design enrollment, plus 5 portables to meet peak enrollment for a total cost of \$2,530,000 (1984 prices).

Leihoku Elementary would need 15 more permanent classrooms and 4 portables to meet design and peak enrollments, at a cost of \$2,220,000 (1984 prices). Permanent support facilities such as administration building, library and cafeteria are also needed but are not included in the cost estimate.

The total cost to expand the existing schools to meet future design and peak enrollments is \$7,000,000 (1984 prices).

In addition to the costs involved, increasing the size of the existing schools would create a serious negative atmosphere for student achievement. A recent study in the Leeward District indicated that students in smaller schools perform better on uniform tests. This is attributed in part to the smaller schools having a more cohesive and stable staff, and more individualized attention to the students by teachers.

There are elementary schools in Hawaii with over 1,000 students that are operating effectively, however, the Department of Education feels that Waianae Schools must be held to a level below 1,000 students due to problems evidenced by the socio-economic conditions and low test scores, as described in the "Present Conditions" section (p. 1).

4. Construction of a New "Waianae III" Elementary School

The establishment of a new elementary school with a design enrollment of 840, would significantly decrease the design enrollment of Makaha, Waianae and Leihoku Schools.

	<u>Design enrollment without new school</u>	<u>Design enrollment with new school</u>
Makaha	1,200	900
Waianae	1,250	935
Leihoku	1,160	935
Waianae III		840

The smaller, more manageable elementary schools will be educationally and socially beneficial to the students.

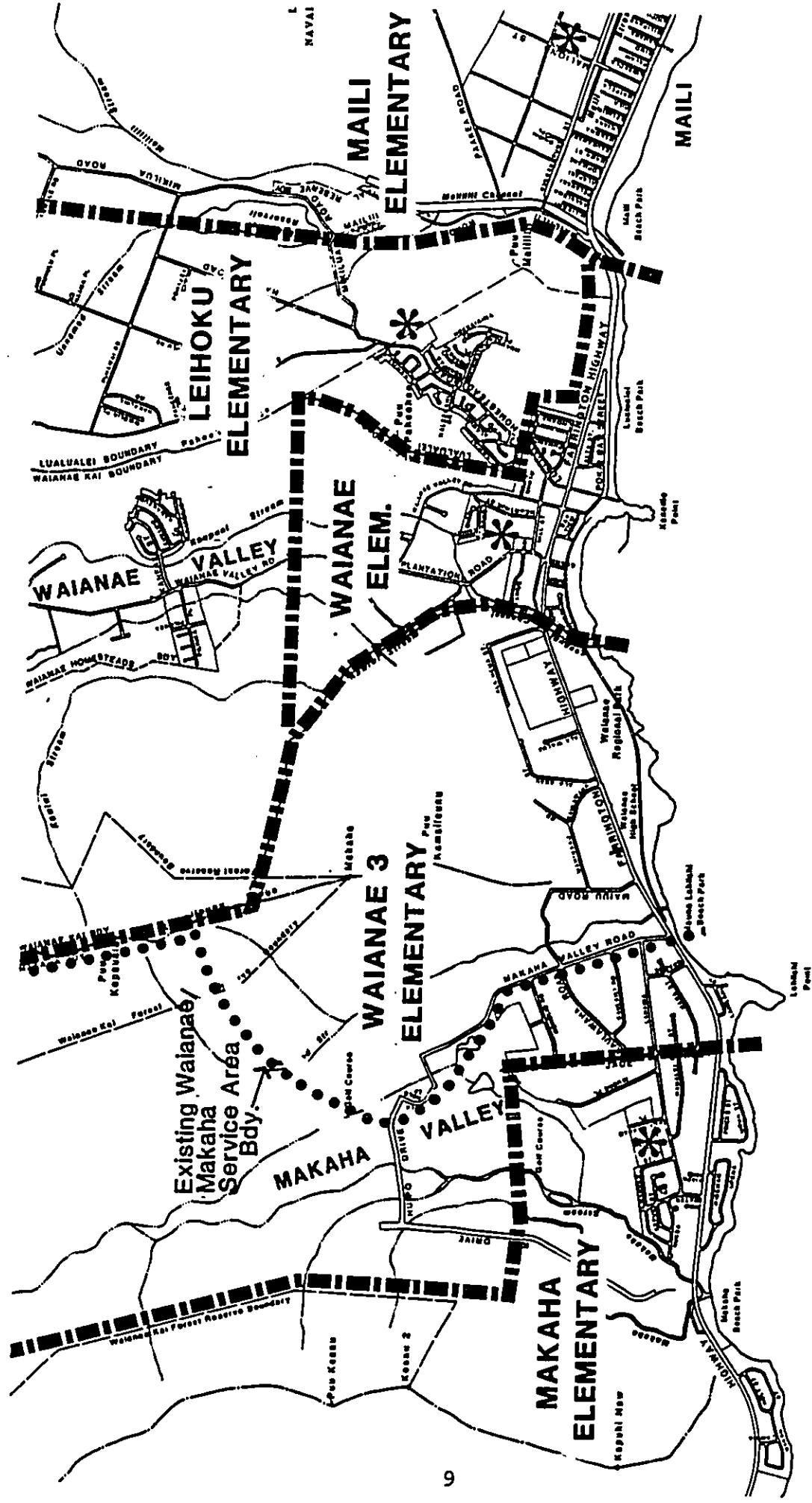
A new "Waianae III" Elementary School would cost about \$8,873,000 (1984 prices) for land acquisition, master planning, design and construction of 36 permanent classrooms, 8 portables and support facilities. This figure is about \$1.8 million higher than the cost of expanding the existing schools. However, the increased cost would be offset by the educational and social benefits derived from smaller elementary schools as well as a reduction in bussing cost.

D. WAIANAЕ III ELEMENTARY: PROJECT OBJECTIVES AND DESCRIPTION

Alternative 4 has been chosen by Department of Education as the optimum solution, as it attains their objective of reducing design enrollments in the Waianae/Makaha area to less than 1,000 students per elementary school. The DOE has requested of Department of Accounting & General Services (DAGS) that a site selection study be carried out for a new Waianae III Elementary School. The proposed service areas for the new and affected schools are shown in Exhibit I-4. Further planning information and specifications provided by DOE include:

1. The design enrollment is 840 students in grades Kindergarten through 6.
2. The ultimate site plan should include provisions to accommodate 1,000 students as a peak enrollment.
3. The site should be 6-8 acres.
4. The scheduled opening date is September, 1989 with a projected initial enrollment of 350. (The building should be ready for occupancy by August 1989, at the latest.)

Based on the need for Waianae III Elementary School and the given planning information described above, the remainder of this report identifies and evaluates various alternative sites for the proposed school.



**Exhibit I-4  
Proposed Service Areas**

**\* Elementary School**



## II. SITE SELECTION METHODOLOGY

The objective of this site selection report is to identify and evaluate the appropriate alternative sites for the proposed Waianae III Elementary School within the given service area of the school. This is accomplished by first identifying lands which are suitable for the proposed use through broadscale analysis. The broadscale analysis criteria include:

- A. Service Area
- B. Slope
- C. Land Use Regulations
- D. Historic Sites
- E. Tsunami & Flood Zones
- F. Presently Developed Area

Once suitable "alternative" sites are identified through broadscale analysis, a detailed analysis is undertaken. This involves evaluating each alternative site against established criteria and rating each site individually on how it meets the criteria. All criteria are considered equal. The site evaluation criteria include:

- A. Physical Criteria
  - 1. Site Characteristics
    - Size
    - Shape
    - Slope
    - Soils
    - Aesthetic Features
  - 2. Roadway and Utilities
    - Roadway
    - Water
    - Wastewater
    - Drainage
    - Power and Communication
  - 3. Accessibility
    - Pedestrian
    - Vehicular/School Bus
    - Public Bus Service
    - Traffic Safety
    - Pedestrian Safety

4. Environmental Factors

- Rainfall
- Highway Noise
- Aircraft Noise
- Industrial and Agricultural Nuisances

B. Social Criteria

1. Existing Use/Displacement
2. Agricultural Lands
3. Land Ownership
4. Proximity to Student Population
5. Visibility/Identity
6. Interference with Institutions
7. Commercial Attractions

The ratings are then summarized and tabulated in a table for comparison purposes to indicate the alternative sites that meet the criteria more fully than others.

A cost analysis is then made evaluating the land acquisition, on and off-site development, and bus subsidy costs of each site. A final summary table is prepared to indicate each site status according to the overall evaluation criteria.

This process of systematic analysis is intended to assist the decision makers in choosing the site for Waianae III Elementary School. The site selection study does not identify preferred sites. A hierarchical ranking of the sites requires placing value judgments on the three categories of evaluation: Physical, Social, and Cost. This task is, according to the Department of Accounting and General Services, the responsibility of the decision makers.

### III. BROADSCALE ANALYSIS

The process of site selection begins with a method of identifying lands which are suitable for the proposed elementary school. Broadscale analysis involves looking at the entire service area, eliminating sites not meeting certain general criteria, and selecting sites for more detailed analysis from the remaining area. The criteria set forth at this stage are minimum site criteria, or minimum standards which must be met by any site before it is studied in further detail. The broadscale criteria are described below:

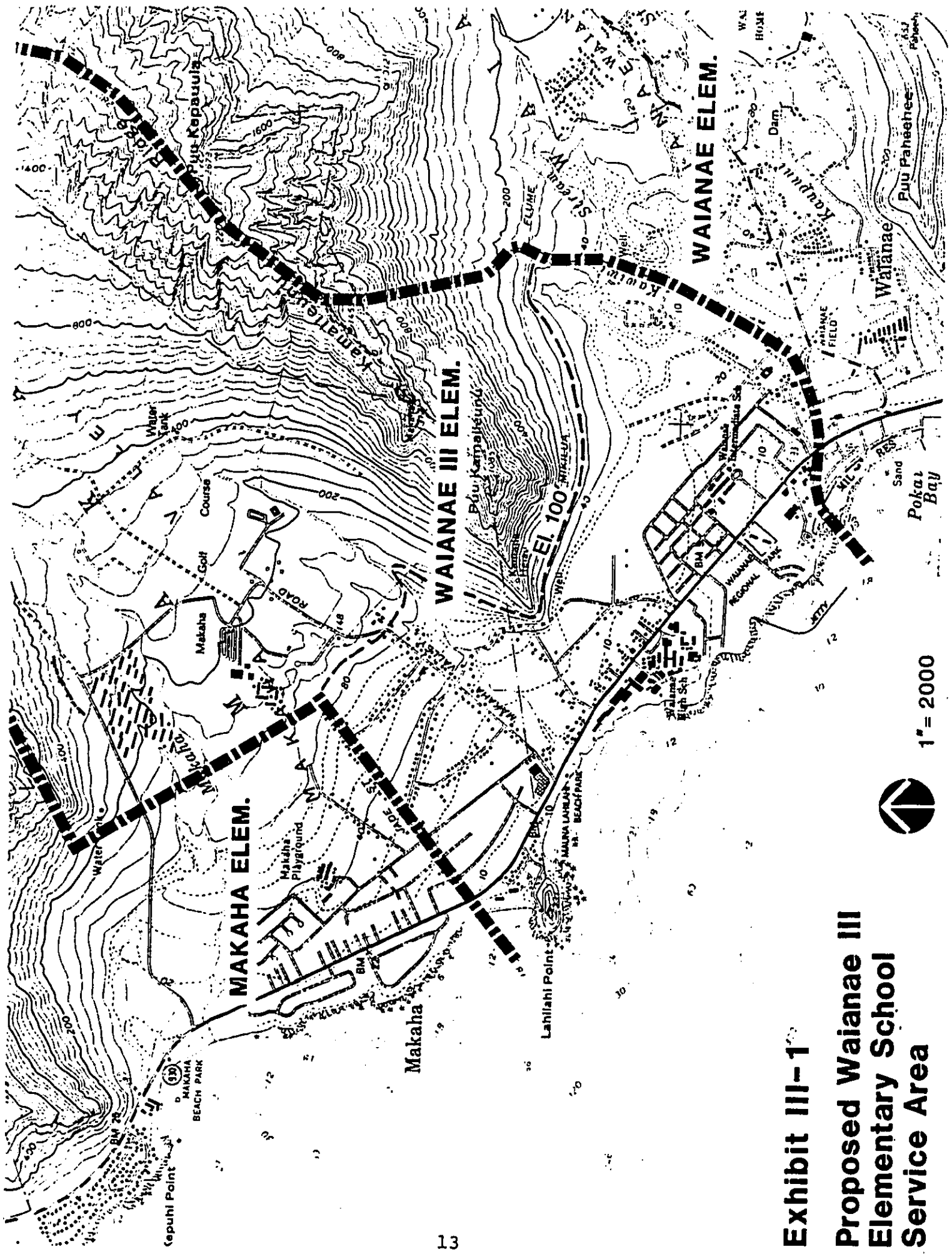
#### A. SERVICE AREA

The Department of Education requires that alternative school sites be located within the service area of a proposed school. DOE has established the service area for the proposed Waianae III Elementary School as shown on Exhibit III-1. It includes parts of Makaha and Waianae towns and the entire Makaha Valley.

DOE also desires to have alternative sites centrally located within the service area, near the major concentration of population. Presently over 95% of the student population lives in the makai section of the service area (the area below contour elevation 100'). Although there are some areas of land zoned for residential and resort use in upper Makaha Valley, they are far removed from the present central residential area. In addition, there are no implementation plans for these areas in the foreseeable future. Therefore, lands within and adjacent to the populated area are included in the Broadscale Analysis. Lands outside the DOE service area and outside the populated section of the service area are eliminated from further consideration as shown on Exhibit III-2.

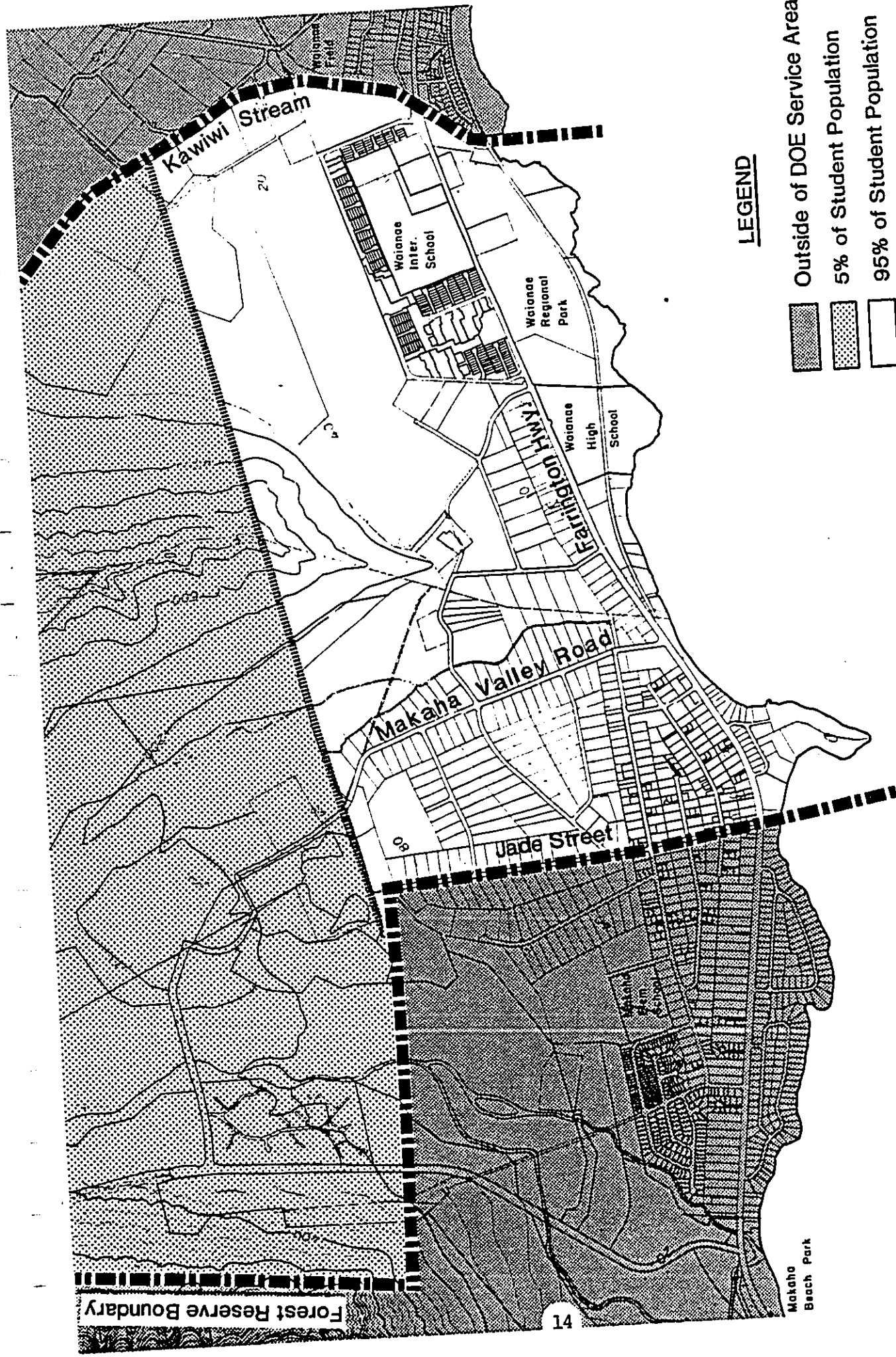
#### B. SLOPES

Lands with slopes greater than 15% are unsuitable for school facilities because of functional limitations for buildings, play areas and parking, as well as the excessive costs and difficulties inherent with construction on steep sites. Only lands with slopes less than 15% are considered for further site selection analysis. See Exhibit III-3.






1" = 2000

**Exhibit III-1**  
**Proposed Waianae III**  
**Elementary School**  
**Service Area**



**LEGEND**

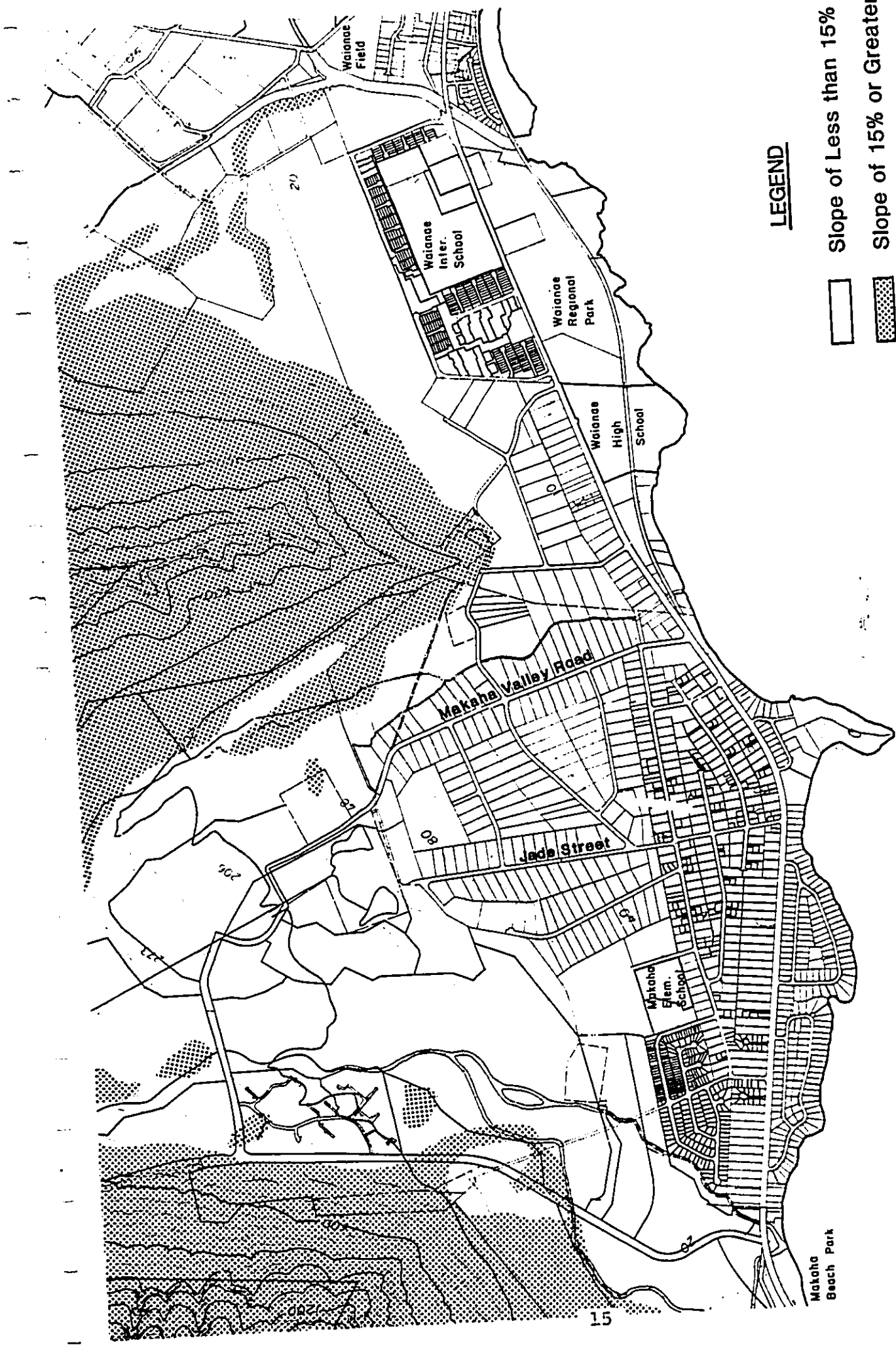
-  Outside of DOE Service Area
-  5% of Student Population
-  95% of Student Population





**Exhibit III-2  
Modified Service Area**

Forest Reserve Boundary





**LEGEND**

-  Slope of Less than 15%
-  Slope of 15% or Greater



**Exhibit III-3  
Slope**

C. LAND USE REGULATIONS

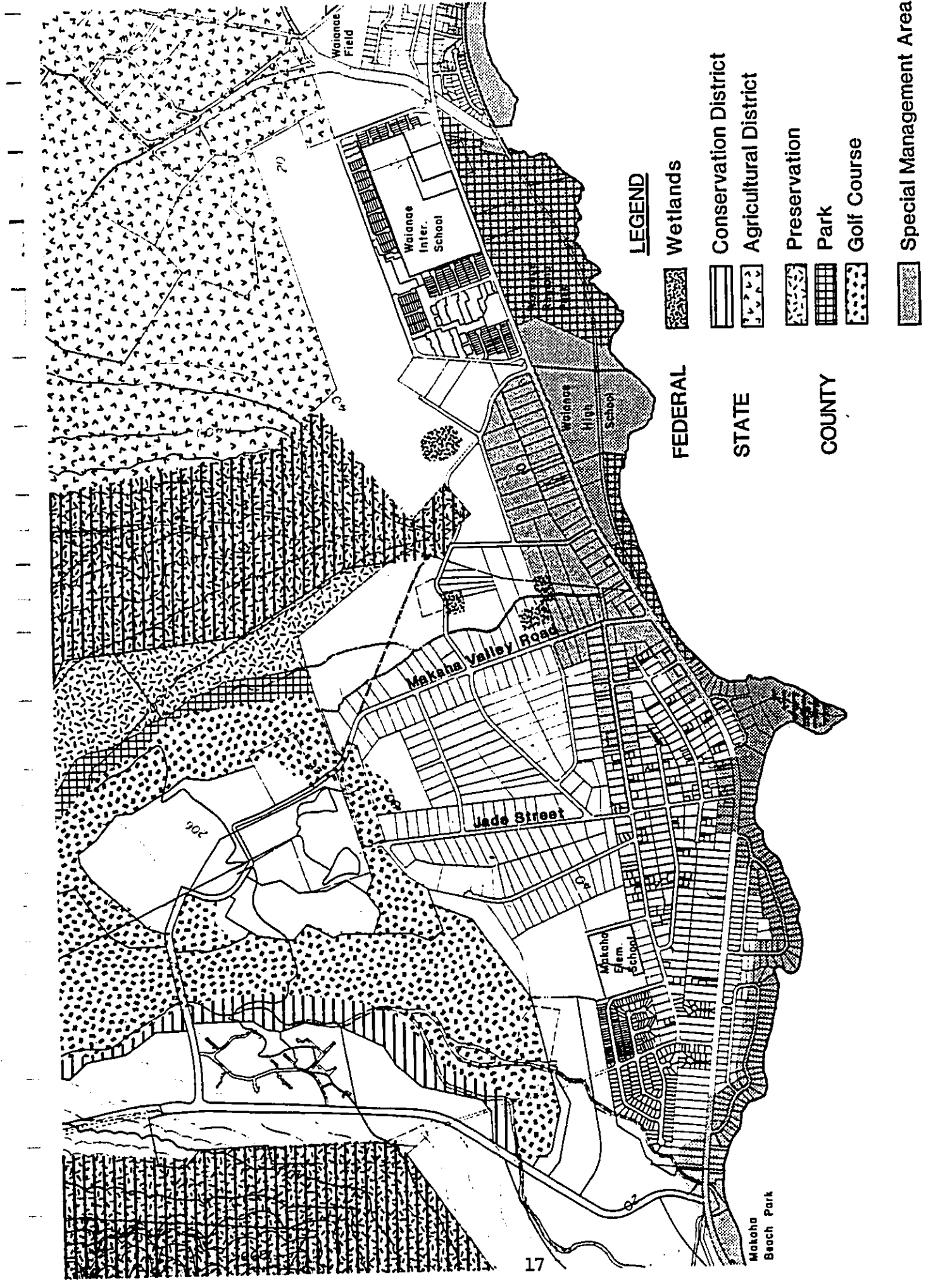
Land use regulations of Federal, State and County governments are designed to protect special resource areas and prime agricultural lands from encroachment of manmade improvements and structures, and to encourage orderly and efficient development of lands for urban use. Within the State Land Use Districts, schools are permitted only within the Urban District. A Special Use Permit or District Amendment may be obtained to locate a school in the State Agricultural District, but this is undesirable as DOE does not want to encourage "spot zoning." It also adds extra time to the acquisition and development process. Therefore, all lands not in the State Urban District were eliminated from further study.

All lands within the State Urban District on Oahu are under the jurisdiction of the County. The City and County of Honolulu regulates land use through the Development Plan and Zoning. Schools are not permitted uses within areas designated Preservation, Park, and Golf Course, therefore they are eliminated from consideration. All zoning categories within the remaining lands allow school development. However, school development projects must be shown on the Development Plan Public Facilities Map. An amendment to this map would be required if a selected site was not in conformity to it.

The shoreline area of each county is protected by Special Management Area (SMA) policies, the means through which the State's Coastal Zone Management Program is implemented. County authorities are responsible for protecting the coastal resources and assuring developments are compatible with coastline areas. A permit must be obtained to use lands within the SMA. The Special Management Area has also been eliminated from further study.

The U. S. Fish and Wildlife Service has mapped and classified the wetlands of Hawaii. While wetlands often times provide essential habitat for wildlife, they may also be important in natural drainage systems and manmade or natural flood control. Since projects that require filling wetlands are subject to the Army Corps of Engineers Section 404 permit, wetland areas are eliminated from consideration for a school site.

Exhibit III-4 shows all lands eliminated due to various land use regulations.



**Exhibit III-4  
Land Use Regulations**



D. HISTORIC SITE

The Department of Education's site selection criteria specifically require that no buildings or sites designated as historic or deserving of preservation be destroyed in the acquisition and development of a new school. Location within or adjacent to a historic site may cause delay in the site acquisition and school development process.

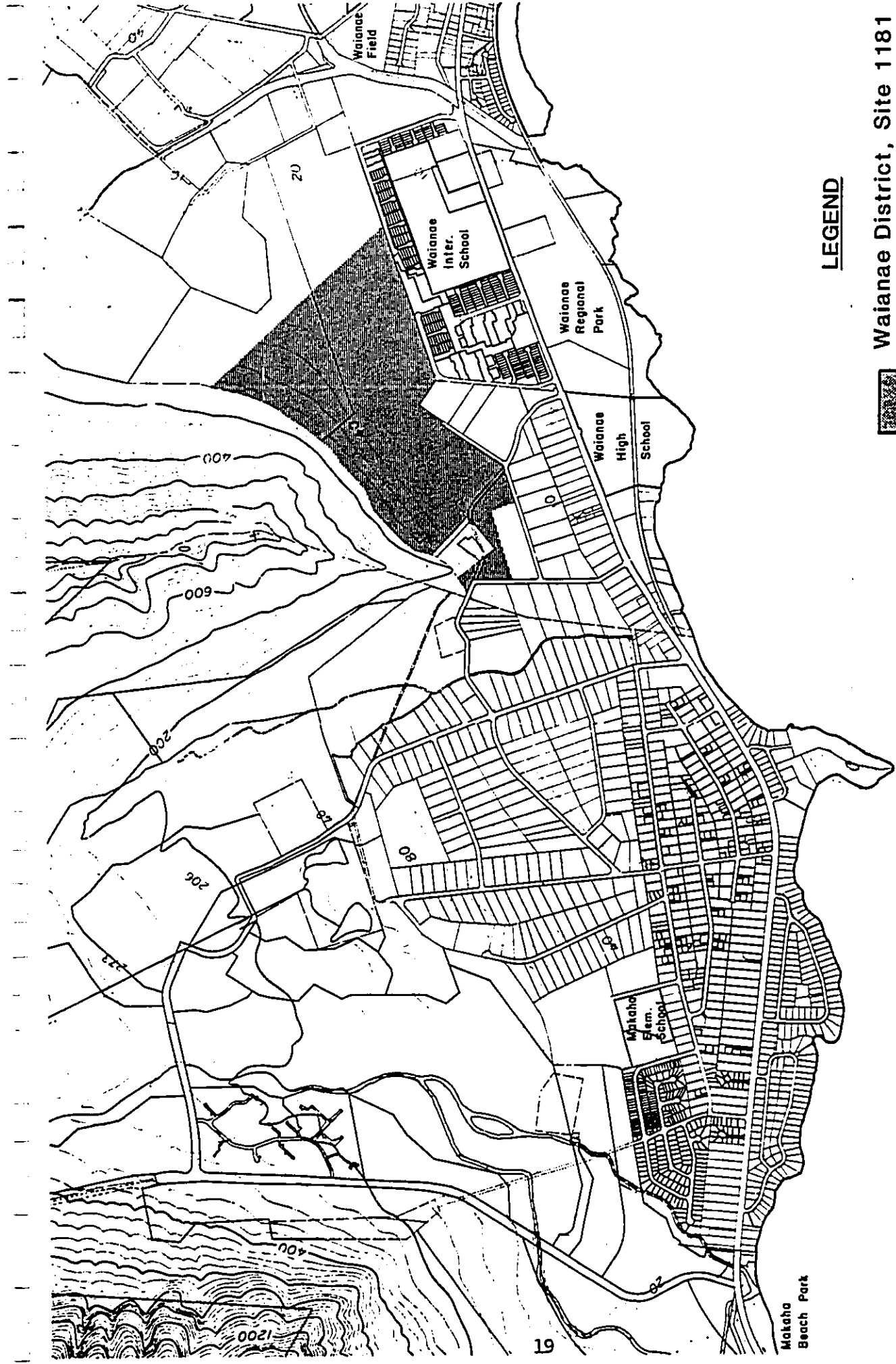
The State of Hawaii Historic Sites Division has identified areas with potential historic/archaeologic research value and designated them as historic "Districts". The "Waianae District", Historic Site No. 1181, is located within the school service area. This site is listed on the Hawaii Register and National Register of Historic Places. Lands within the Waianae District are eliminated from consideration, as shown on Exhibit III-5.

E. TSUNAMI AND FLOOD ZONES


Schools are often used as emergency shelters in times of natural disasters. Therefore, the Department of Education requires that school sites be located outside the tsunami inundation areas as established by the Tsunami Research Program of the Hawaii Institute of Geophysics and the Federal Tsunami Information Center. These are areas that should be evacuated on receipt of a tidal wave warning. Lands within the 100 year flood plain are also eliminated. Exhibit III-6 shows the tsunami and 100 year flood zones.

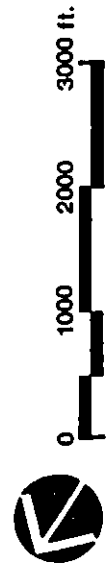
F. PRESENTLY DEVELOPED AREA

Developed urban lands, and lots zoned Ag-1 which are smaller than the required 2 acre minimum lot size were eliminated from further consideration in site selection. Developed lands tend to be more expensive and time consuming to acquire than adjacent undeveloped areas. The relocation of families, farms or businesses is also undesirable. See Exhibit III-7.



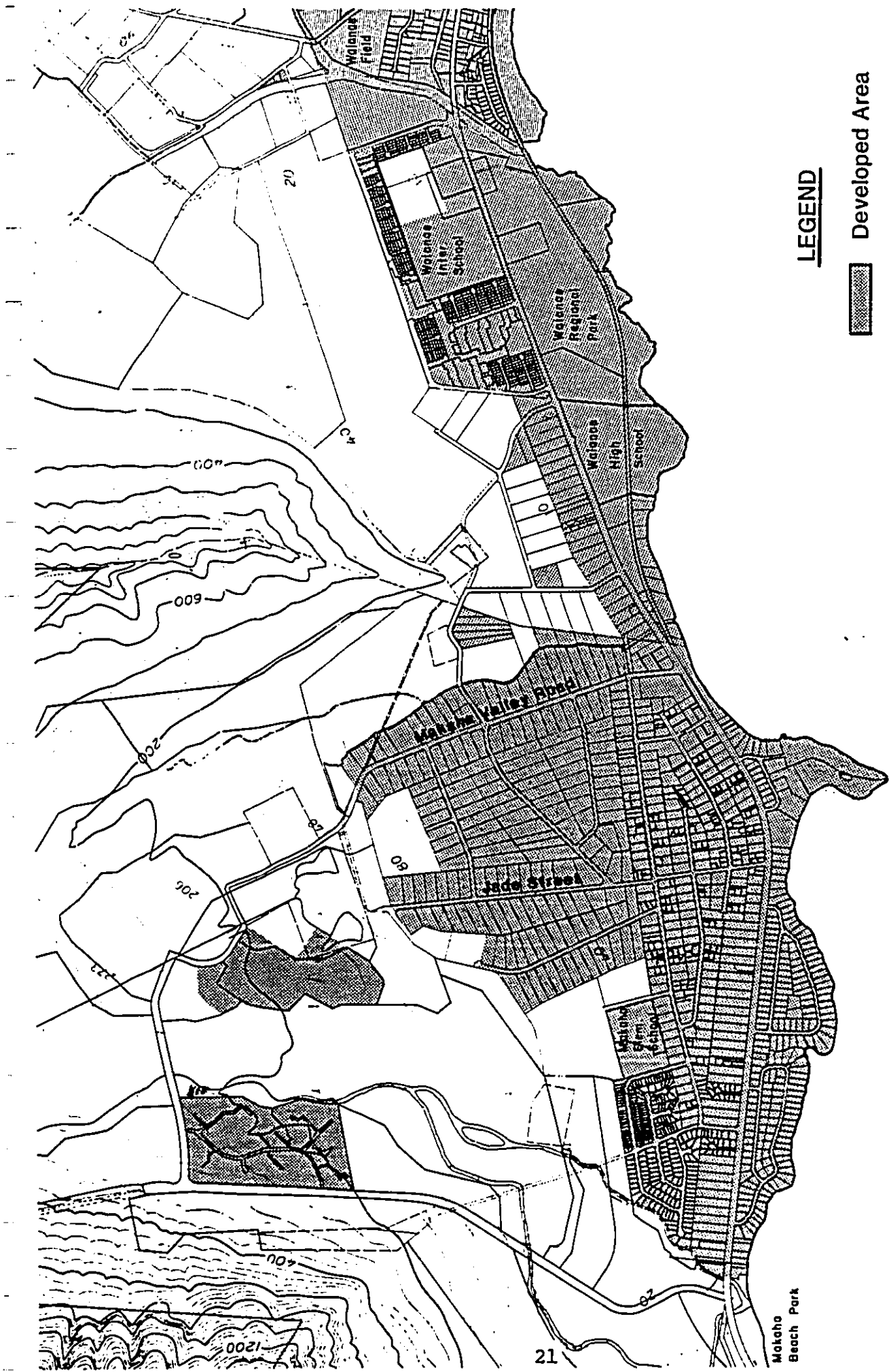
**LEGEND**


 Waianae District, Site 1181  
 TMK 8-5-2:19, 22, 24, 25



**Exhibit III-5  
Historic Sites**





**Exhibit III-7  
Presently Developed Area**

All areas eliminated from further analysis (Exhibit III-1 through III-7) are composited and shown in gray on Exhibit III-8. The remaining lands (white) may be considered for alternative school sites, if they are large enough to accommodate a 6-8 acre site. Alternative Sites 1, 2, 6, 7, 9 and 10, (Exhibit III-9) were selected for further study.<sup>4</sup> Each alternative site consists of one entire parcel, a portion of one parcel or a consolidation of more than one parcel.



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<sup>4</sup>Ten alternative sites (Exhibit III-9) were selected for evaluation in the draft Site Selection Study which was distributed for comments during the EIS Consultation Phase. Based on additional information obtained, Sites 3, 5 and 8 were eliminated from consideration due to the historic district, Site 4 was eliminated due to a revision of the SMA boundary, and Site 5 contained a wetland.

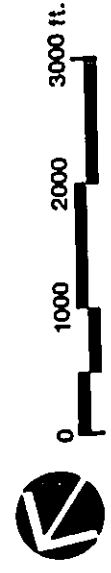


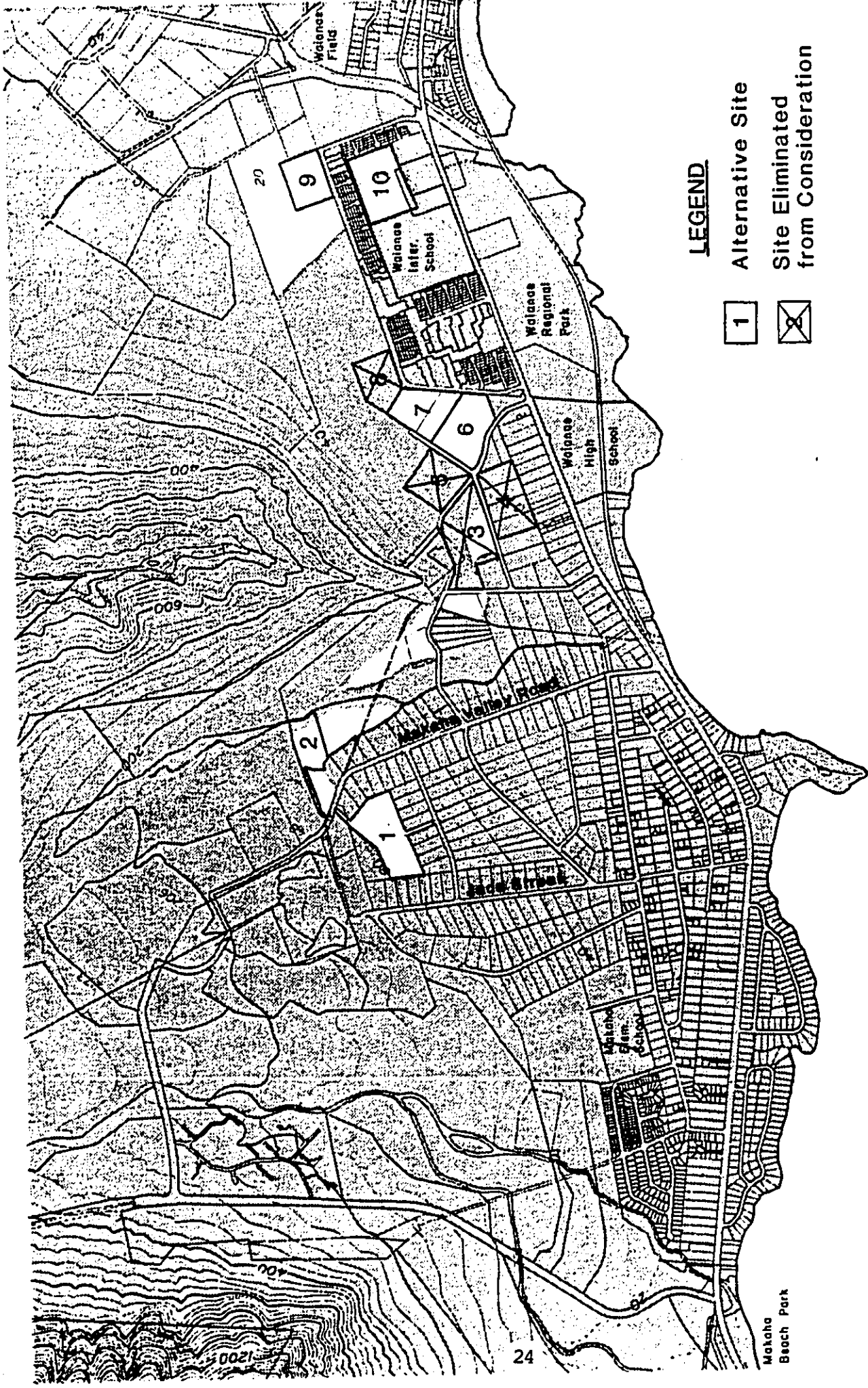


**LEGEND**

-  Land not Meeting Broadscale Criteria
-  Land Meeting Broadscale Criteria

**Exhibit III-8  
Composite of Broadscale Factors**





**Exhibit III-9**  
**Alternative Sites**

#### IV. SITE EVALUATION CRITERIA

Sites 1, 2, 6, 7, 9 and 10, having met the minimum standards set forth in the broadscale analysis phase, were selected for detailed evaluation. This phase of site selection evaluates each alternative site against an established set of criteria designed to identify the presence or absence of various characteristics important in a school site. The criteria have been placed into 3 categories: physical, social and cost.

##### A. PHYSICAL CRITERIA

##### 1. Site Characteristics

###### Size

The site must contain enough usable land to meet Department of Education's requirement of 6 to 8 acres for an elementary school. If a site adjoins a County park, up to 50% of the playfield requirement may be satisfied by a joint-use agreement permitting DOE priority use of designated park facilities during school hours. The need for a larger site than requested because of slope, parcel size or other considerations is less desirable as it entails added cost in site acquisition.

Good - The site is 6-7 usable acres and adjacent to a park; or the site is 7-8 acres and is not adjacent to a park.

Fair - The site is 6-7 acres and is not adjacent to a park.

Poor - The site is larger than 8 acres; or the site is 7-8 acres and adjacent to a park.

###### Shape

The configuration of a site affects the design flexibility of a project. An irregular-shaped site may not be utilized efficiently and may restrict optimum placement of facilities. The length to width ratio of the site must not exceed the DOE standard of 2.5 to 1. A ratio of 1 to 1 is ideal.

Good - Length-width ratio 1.0:1.0 to 1.5:1.0.

Fair - Length-width ratio 1.6:1.0 to 2.0:1.0.

Poor - Length-width ratio 2.1:1.0 to 2.5:1.0.

### Slope

Topography affects usability of a site and influences the location of various land uses. A school site must be level enough to allow easy adaption for buildings, play areas and parking. Grading standards recommend lawn and recreation areas have 2-3% slope, and walkways, streets and drives should have 1-5% slope. Steep sites require additional grading, thus affecting the construction and maintenance costs of development.

A general guideline for determining usable land area is:

<u>Slope of land</u>	<u>% of total area considered usable</u>
0-12%	100%
12-15%	90%
over 15%*	0% (unusable)

\*Lands over 15% were eliminated during the Broadscale Analysis phase.

School sites should be free from topographic hazards such as bluffs, pits, hazardous shorelines and landslides. A sloping site will also have an orientation to the sun and wind, which is important in considerations for sun glare and ventilation.

Good - The average slope of the site is between 1 and 3%.

Fair - The average slope of the site is between 4 and 11%.

Poor - The average slope of the site is greater than 12%.

### Soils

Soil and subsoil conditions must be suitable for excavation and site preparation for utility connections, grading, and planting. Subsoil conditions should afford suitable bearing capacity for the economical construction of school buildings. Bearing capacities are affected if a site contains excessive fill, muck, peat, rock or lava, or sub-surface water. Soil properties most critical for the construction and maintenance of building foundations, roads, and drainage and sewage

disposal systems include shrink-swell potential, shear strength, and permeability. Soil depth affects utility placement, grading, and planting.

Good - Soils with more than 5' depth to bedrock, low shrink-swell potential, high shear strength, and rapid permeability.

Fair - Soils of any depth with low or moderate shrink-swell potential, high shear strength and moderate to rapid permeability.

Poor - All other types of soils.

#### Aesthetic Features

Aesthetic natural features can be used to educational advantage as well as to beautify a site. Features such as shade trees, plants, rock formations, and pleasant views should be preserved and integrated into the school campus.

Good - The site has some natural features in the form of trees, plants, rock formations, views, etc.

Fair - The site lacks most of the desirable natural features but still has the potential of becoming a beautiful campus through proper landscaping.

Poor - The site has no natural features whatsoever.

## 2. Roadways and Utilities

Roads and utilities are mandatory requirements in developing a new school. Their importance as evaluation criteria lies primarily in the relative cost involved to serve the interim and ultimate needs of the school at each alternative site. The existence of adequate roadways and utilities, and the availability and proximity for connections minimizes costs associated with the new school. Roadway costs may involve construction and/or improvement of an adequate road system as well as land acquisition costs for additional right-of-way if necessary. Utilities costs may involve constructing new utility lines, providing additional lines or increasing sizes due to additional loads imposed by the school, extending existing lines to serve a site, and making connections on site.

### Roadways

An elementary school must have adequate roadways to serve the needs of the school. The right-of-way of existing roads must be wide enough to accommodate road improvements to meet city standards as well as to provide adequate shoulders, curb/gutters, sidewalks, etc. A minimum desired R-O-W is 44'. Roadways must be wide enough for two way traffic plus a parking lane, thus a minimum of 28' of paving; and the width and height clearance of roadways must accommodate school buses.

Roadways and R-O-W's serving the school should be either public-owned, or private-owned that are currently open to the public. Private-owned roads and R-O-W's which are not open to the public would require acquisition.

Good - The site has at least one adequate roadway to meet the ultimate school needs.

Fair - The site has inadequate roadways, but has sufficient R-O-W to accommodate necessary improvements to meet the school needs.

Poor - The site has no roadways and will require the construction of a roadway system; or the existing R-O-W widths are insufficient.

### Water

Access to an adequate County water system is preferable to a private supply considering both safety and economics. The Waianae Water District currently has no excess capacity due to the diversion of water to Waipahu. However, once the new water treatment facility at the Waipahu wells is operational (Fall, 1986), this diverted water will again be available to Ewa/Waianae, first to existing farmers, and then to others on a first-come, first-serve basis. This should be adequate to accommodate the proposed school.

Water of safe quality must be available under sufficient pressure and the general supply must be adequate in amount to provide for fire fighting. County standards require that fire hydrants have a minimum spacing of 250' along a main road adjacent to a school (and in developed areas) for exterior fire protection. On-site requirements are based on the ultimate master plan for each site.

Good - The site has adequate water pressure and capacity available to meet the school needs and has adequate fire hydrants available along one adjacent roadway.

Fair - The site has adequate water pressure and capacity available to meet school needs but has no, or inadequate fire hydrants available.

Poor - The site has inadequate water service and will require the development or extension of a water system to specifically meet the school needs.

#### Wastewater

The State Department of Health strongly recommends that the public wastewater system is utilized for school developments, particularly in the Waianae area. Ground disposal systems (cesspools) are known to have problems in this area due to the dense coral subgrades and clay soils common there. Also, cesspools are not allowed in areas called "No Pass Zones" where they might affect the groundwater quality.

To service an elementary school from the public system, an 8" minimum sewer main is needed. If ground disposal were used, numerous large cesspools would be necessary to handle the large volume. The approximate cost of a sufficient cesspool system would about equal the cost of extending the public system 2000'.

Good - The site has adequate sewer lines available to meet the school needs.

Fair - The site is within 2000' of an adequate sewer line which can be extended to serve the school.

Poor - The site is more than 2000' from an adequate sewer line.

### Drainage

Essential factors in site selection include a low enough water table to protect against interference with sewerage, dampness beneath buildings, and sufficient slope to permit surface drainage of normal rainfall. (Danger of flooding at less than 100 year intervals has been minimized by eliminating 100 year flood plain areas during broadscale analysis.) Drainage systems are often provided for safety and convenience of school users and protection of improvements from water damage, flooding and erosion. If the site does not have adequate surface and subsurface drainage facilities, it will be necessary to install on-site drainage facilities or connect to an off-site drainage system.

Good - The site has adequate drainage facilities available to meet the school needs.

Fair - The site may be connected to off-site drainage facilities.

Poor - The site has no drainage facility and may require the development of a drainage system to specifically meet the school needs.

### Power and Communication

Electricity and telephone service are essential in a school. The distance and ease of extending the services to a particular site can be a factor in site selection. A 12 kv electric distribution line is adequate to service an elementary school.

Good - The site has adequate existing power and communications available to meet the school needs.

Fair - The site may require improvements to existing services.

Poor - The site has insufficient power or communications available and will require extension of off-site services.

### 3. Accessibility

Accessibility to the school for the general public must be evaluated both for functional adequacy as well as safety.



### Pedestrian

Pedestrian access to the school should be readily traversable and should enter the site at several places along the school property boundary and on several sides of the property. Students should not be inclined to take short cuts through private property.

Good - The site will have relatively unrestricted pedestrian access from 2 or more sides.

Fair - The site will have relatively unrestricted pedestrian access from one side.

Poor - The site has restricted pedestrian access.

### Vehicular/School Bus

Adequate ingress and egress for vehicles is important both for long-term and short-term traffic (e.g. faculty traffic vs. student drop-off). To minimize conflict and congestion, the site should have roadways along at least two sides and they should be through-streets, not cul-de-sacs or dead end streets which force traffic to double up. Flag lots severely hamper flexibility in designing on-site traffic patterns (ingress, egress, drop-off and parking).

Good - The site has through-streets along 2 or more sides.

Fair - The site has a through street along only one side; or dead-end streets along 2 or more sides.

Poor - The site is served by one dead-end street only; or the site is a flag lot.

### Public Bus Service

Public bus service can be utilized by students if a major bus line runs through the service area at frequent intervals (every half hour) during school opening and closing hours. Optimum access to the school is provided if the bus line passes by the site, however one-half mile is considered reasonable distance from the site which children can walk to catch a public bus.

Good - The site is served by a major bus line running through the service area.

Fair - A major bus line passes within 1/2 mile from the site.

Poor - No bus service is available; or bus line passes further than 1/2 mile from the site.

#### Traffic Safety

Adequate roadways without excessive and dangerous gradients, curves or intersections are important for traffic safety. Roadways must be capable of handling the heavy traffic at school opening and closing hours and should be through streets, but not highways or major roads passing through the service area.

Good - Access to the site is via a through street (but not a major street or highway) without dangerous conditions, and currently or potentially capable of handling heavy traffic.

Fair - Access to the site is via a major street without dangerous conditions, and currently or potentially capable of handling heavy traffic.

Poor - Access to the site is via a street with dangerous conditions; a dead end street; or a highway.

#### Pedestrian Safety

Pedestrian traffic should ideally be separated from vehicular traffic by providing sidewalks along roads, and over/underpasses across heavy traffic lines. Pedestrian safety is a primary concern and the necessity for extensive improvements (walkways, traffic signals, overpasses) may be a considerable cost factor.

Good - Adequate and safe walkways/shoulders to the site are available.

Fair - Safe walkways/shoulders to the site will be provided along the school access road(s).

Poor - The site may require traffic signals and/or pedestrian overpasses in addition to walkway/shoulder improvements.

#### 4. Environmental Factors

The impact of external factors is important in site selection, particularly if there are negative externalities. Negative externalities may be annoying, disturbing, uncomfortable and unsafe conditions which can hamper school activities. If necessary, mitigation methods must be incorporated into the design and construction of the school. This is often a costly endeavor. The possibility of negative externalities from potential land uses of currently vacant lands must also be considered.

##### Rainfall

Elementary school complexes often consist of several physically separate classroom and support facility buildings. In areas with median annual rainfall greater than 40", covered walkways and playcourts are required by DOE.

Good - The site has a median annual rainfall less than 30".

Fair - The site has a median annual rainfall between 30" and 40".

Poor - The site has a median annual rainfall greater than 40".

##### Highway Noise

Motor vehicle noise from major roads, highways, and truck routes can often be at a level which eliminates or disturbs one's ability to hear normal conversation. Obviously, this is unacceptable in a school classroom. Therefore, mitigation methods such as installing air conditioning for ventilation is required so windows can remain closed.

Generally, noise levels above 50 dB are disturbing to normal conversation (within 32'). Farrington Highway, the busiest road in the service area, has a noise level of around 70-80 dB during peak hours. At a distance of 1000' from the highway, across open land area, the noise level will be reduced to 50 dB.

Good - The site is more than 1,000 feet from major roads, highways, and truck routes.

Fair - The site is within 1000' of major roads, highways, and truck routes, but is shielded by existing buildings.

Poor - The site is within 1000' of a major road, highway, or truck route and is not shielded.

#### Aircraft Noise

Aircraft noise presents the same problems as highway noise. The site's proximity to an airport or air base and to normal aircraft flight patterns is an important consideration in site selection.

According to State Department of Transportation Airport Division's Compatibility Plan, a distance of 12 miles from the ends of an airport runway and 2 miles from the sides of a runway is within Land Use Guidance Zone A - Minimal Exposure. Zone B is 6 miles and 1/4 mile respectively. Zones C and D are closest to the airport.

Good - The site is in Land Use Guidance Zone A.

Fair - The site is in Zone B.

Poor - The site is in Zone C or D.

#### Industrial and Agricultural Nuisances

School sites should be set distinctly apart from industrial and agricultural land uses and their inconveniences, with prevailing winds fully considered. Noise, odors, dust, smoke, flies and other nuisances related to industrial and agricultural activities can cause considerable discomfort and can hamper school activities. Such nuisances can also be periodic and within limits of human toleration.

As with highway and aircraft noise, mitigation methods must be employed to minimize the effects of agricultural and industrial nuisances on the activities of the school.

Good - The site is free from noise, dust, odors, smoke, and other nuisances created by industrial or agricultural activities.

Fair - The noise, dust, odors, smoke, etc. nuisances from industrial or agricultural activities are at worst periodic and well within the limits of human toleration.

Poor - The above mentioned nuisances cause considerable discomfort and hamper school activities.

B. SOCIAL CRITERIA

1. Existing Use/Displacement

In changing the existing use of a site to a school use, there should be minimum disruption to the existing community setting. In particular, the site should be acquired and developed with minimum displacement of any families, businesses or farms. Relocation of existing people and businesses may bring about undesirable impacts on the individuals directly affected as well as the community. Additional time and expense is also involved when relocation is necessary.

Good - The site is vacant and unused and may be acquired without relocating any family, farm, or business.

Fair - The site may be acquired without relocating any farm or business or more than 2 families.

Poor - The site cannot be acquired without the relocation of farms, businesses, or more than 2 families.

2. Agricultural Lands

Productive agricultural lands are a valuable resource in Hawaii and efforts are being taken to preserve them. The University of Hawaii Land Study Bureau has classified agricultural lands by productivity ratings A, B, C, D, E, with A representing the highest class of productivity. Classes A and B have certain legal restrictions as to how they can be used. Urban lands, designated as U, are not rated, but are considered to have low productivity. In selecting a school site, lands with low productivity ratings are desired.

Good - The site is located on land with very poor (E) productivity rating, or land designated Urban.

Fair - The site is located on land with fair (C) to poor (D) productivity rating.

Poor - The site is located on land with very good (A) to good (B) productivity rating.

3. Land Ownership

The land ownership of alternative sites can significantly affect the time frame for land acquisition. "Timing" in site acquisition is of major concern to the Department of Education, as acquisition must occur early enough to allow for construction time to meet DOE's scheduled school opening date.

Land ownership considerations include the type of landowner (government, private business, or individual) and the number of different landowners for a particular alternative site. A State agency may typically acquire State land for a public use within a fairly pre-determined, predictable time frame due to specific and known procedural requirements. Acquisition of private property on the other hand, may be much more complicated. Negotiation and/or condemnation procedures, as well as possible lease and deed restrictions on private land may delay acquisition to the point that it holds up construction. Acquisition of Federal and County owned lands can be complicated and time consuming as well due to the numerous regulations and procedures involved. The more property owners which must be dealt with, the more complicated the acquisition process.

Land ownership may also affect the actual land cost to the State, however for evaluation purposes, all lands are compared based on the assessed value of the land, which is not directly related to land ownership.

Good - The site is entirely owned by the State government.

Fair - The site is owned by one individual or business corporation.

Poor - The site is owned by the Federal or County government, or by more than one individual or business corporation.

4. Proximity to Student Population

Elementary schools should ideally be located near the center of the service area or near the major concentration of dwelling units. An optimum walking distance of 1/8 to 1/2 mile is recommended for elementary school children according to national planning standards. The State of Hawaii Department of Education requires that all children

living more than 1 mile (based on actual walking distance) from their elementary school must have bus service, a significant cost consideration in site selection. Presently, bus service costs the State about \$1.60 per child per day and \$40.00 per day for special education children. The school children pay \$0.10 for each bus ride.

Good - 0-25% of the present student population in the service area qualify for bus service.

Fair - 26-50% of the present student population qualify for bus service.

Poor - Over 50% of the present student population qualify for bus service.

5. Visibility/Identity

School sites with building facilities, playgrounds and other recreational open space are a prominent public facility, often the heart of a community and a source of community pride. It is important, therefore, that such sites have a distinct physical and visual identity within their immediate surroundings. This is created by a centrally located site fronting on an easily accessible street, with the access drive and major buildings clearly visible to pedestrian and vehicular traffic alike. If a school (elementary, in particular) is located adjacent to another school or other public facility, it should still front on a roadway and have a separate, clearly visible access drive.

Good - The site is centrally located within the service area and has a street along one or more sides.

Fair - The site is either centrally located or has a street along one or more sides.

Poor - The site is not centrally located and does not have a street along one side.

6. Interference with Institutions

A school site should be located at a sufficient distance from hospitals, rest homes and other institutions that generally require "quiet zones", so that occupants of these facilities will not be disturbed by the noise and activity of large groups of children.

According to DOE, elementary schools should also be physically separated from intermediate and high schools to avoid the daily contact and influence of older students on the younger children.

Good - The site is not adjacent to a hospital, rest home, or secondary school.

Fair - The site is adjacent to a hospital, rest home, or secondary school, but there is an intervening street between the land uses.

Poor - The site is adjacent to a hospital, rest home, or secondary school without an intervening street.

#### 7. Commercial Attractions

Commercial centers near a school may contain businesses that attract students during school hours, such as game rooms, video centers, bowling alleys, pool halls and stores. A school should be at a distance that eliminates or minimizes the distraction of a commercial operation.

Good - The site is more than 1/2 mile from commercial businesses that may attract students during school hours.

Fair - The site is reasonably far (1/4 to 1/2 mile) from distracting commercial businesses.

Poor - The site is within 1/4 mile of distracting commercial businesses.

#### C. COST CRITERIA

A major consideration in any school site selection study is the relative costs associated with land acquisition, on and off-site development and bus subsidy of each alternative site.

##### 1. Land Acquisition Cost

For comparative purposes land acquisition costs for the site are based on the assessed values of both the land and improvements of each site as determined by the City and County of Honolulu Department of Finance, Real Property Assessment Division. Although a site owned by the State of Hawaii would not incur an actual land cost, the assessed value of all sites are compared, regardless of landowner.



An additional acquisition cost is for occupant relocation. By State law, any person displaced by a government agency is eligible for relocation benefits. These include reimbursement for all moving expenses based on actual cost or a fixed payment of \$300. Displaced occupants also qualify for a "replacement housing payment" which is the difference between their present rent and their new rent over a 2 year period, with a \$1500 maximum payment.

2. On Site Development Cost

Specific on-site improvements are inherent in the development of a new elementary school. These improvements include clearing and grading the site, utility and drainage provisions, and development of the school buildings, parking areas and support facilities. The cost involved for some improvements is approximately equal for all sites, such as the cost to construct the school building.

3. Off-Site Development Cost

As with on-site improvements, specific off-site improvements are also required for a new school. These consist of extending and/or upgrading existing utility systems such as water, wastewater, drainage, electricity and telephone service; providing new, or improving existing roadways; and providing adequate walkways to each site.

4. Bus Subsidy Cost

In Hawaii an allowance for bus transportation is provided to students residing more than 1 mile (road distance) from the school. For purposes of this study, the bus subsidy costs are computed based on number of students qualifying for the bus subsidy.

5. Campus Aide Cost

As a result of concerns expressed during the "consultation phase" review period, an allowance for two campus aides is provided to sites which are adjacent to existing intermediate or high schools, to help alleviate potential administrative problems resulting from the close proximity of the schools.

## CHAPTER V. EVALUATION OF ALTERNATIVE SITES

Six alternative sites were selected after having met the minimum criteria of the broadscale analysis in Chapter II. (See Exhibit V-1.) This chapter contains the evaluation of these sites against the physical, social and cost evaluation criteria described in Chapter IV. Physical and social conditions of each site are rated "good", "fair" or "poor" and the ratings for physical and social criteria of all sites are summarized on Exhibit V-20, page 83. Cost estimates for each site are computed based on land acquisition, on and off-site development, bus subsidy and campus aide costs, and are summarized on Exhibit V-22, page 95 for comparison.

### A. PHYSICAL AND SOCIAL CRITERIA

In evaluating each site against the physical and social criteria described in Chapter IV, it was found that for several criteria, all the sites had equal ratings. Therefore, these criteria are described below and are not included in the individual evaluations and ratings for each site as they have no impact on the ultimate rating.

#### Power and Communication

The electric and telephone utility companies will generally provide service to sites free of charge unless a considerable line extension distance is required (e.g.: over a mile) or major improvements to an existing line are needed. All of the six alternative school sites are adjacent to or within 300 feet of existing electric and telephone lines, therefore all sites rate equally for this criteria. (See Exhibits V-14 and V-15.)

#### Rainfall

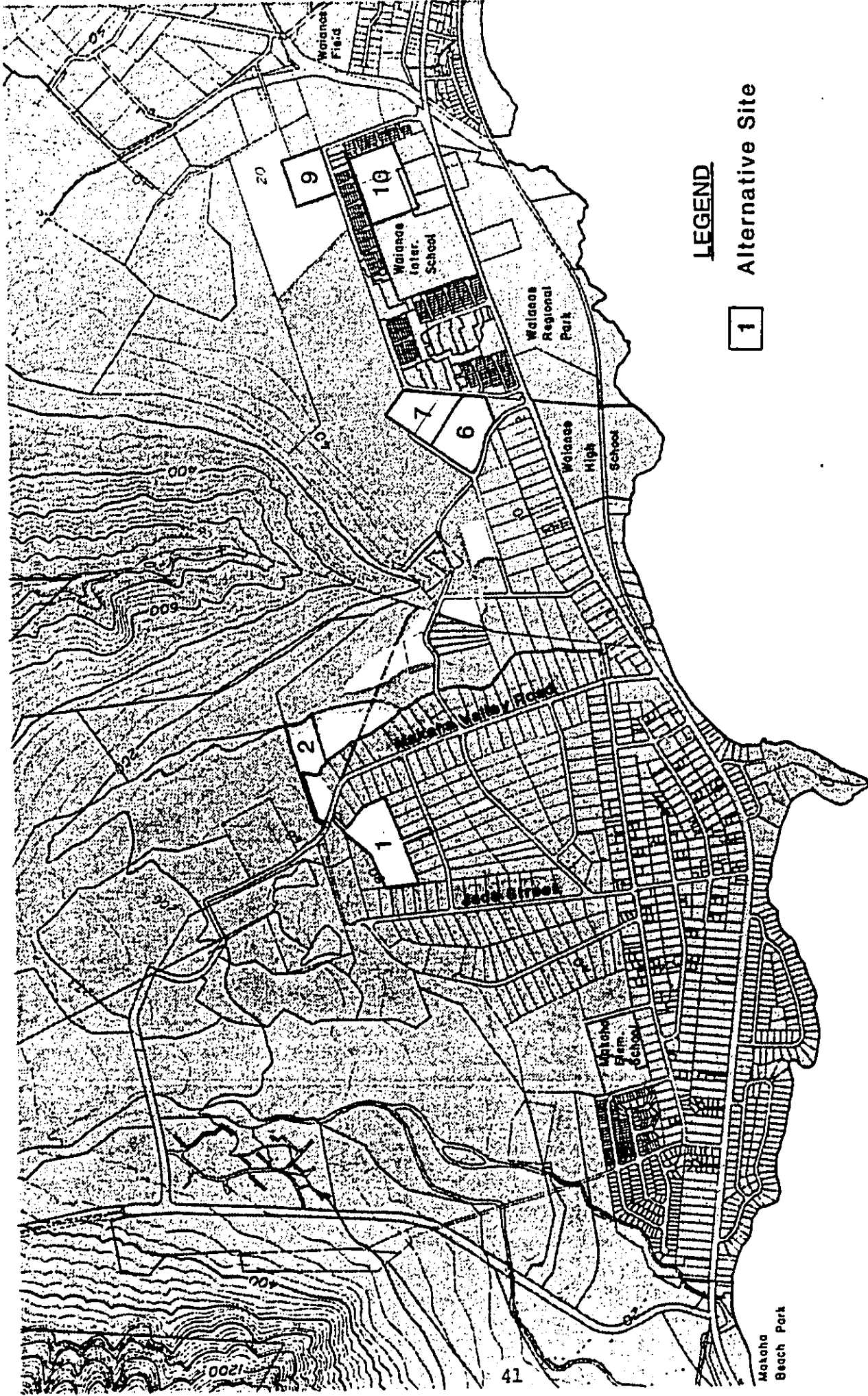
The median annual rainfall of all sites is 20-30 inches, thus covered walkways and playcourts are not required.

#### Aircraft Noise

All six alternative sites are over 18 miles from Honolulu International Airport and Hickam Air Force Base and 12 miles from Barbers Point Naval Air Station, thereby falling in Land Use Guidance Zone A, with minimal aircraft impact.

#### Agricultural Lands

The Land Study Bureau has classified lands of the six alternative sites as urban and/or with productivity rating E, indicating very low agricultural productivity at all sites.



**Exhibit V-1**  
**Alternative Sites**

Commercial Attractions

There are no commercial centers which may attract students during school hours within one half mile from the six alternative school sites. (See Exhibit V-16).

## EVALUATION OF SITE 1

### Size

Site 1, TMK 8-4-23:25, is 10.46 acres, 2-1/2 acres larger than requested size, and is not located next to a park.

Rating: Poor

### Shape

The average length-width ratio is 2.3:1.0.

Rating: Poor

### Slope

The average slope of this site is 3%, sloping downward from the mauka property line toward the makai property line.

Rating: Good

### Soils

The mauka 3/4 of the site have Ewa stony silty clay soils while the makai 1/4 of the site is Waialua silty clay. Both soil types are more than 5' deep, have moderate shrink-swell potential and moderate permeability. The Ewa soil type has a high shear strength while the Waialua soil type has low shear strength.

Rating: Fair

### Aesthetic Value

The elevation of the site and the slight sloping topography allow for spectacular views towards the ocean and the mountains. The mauka edge of the site is adjacent to a beautifully landscaped golf course.

Rating: Good

### Roadway

Noholio Road and Makaha Valley Road serve the site. Noholio Road has a 50' right-of-way but the existing road is 10 feet wide, worn asphaltic concrete (a.c.) paving with no shoulder or walkway. Makaha Valley Road has a 60' R-O-W. The existing road is a.c. paving and is designed to handle 2-way traffic. There is no existing shoulder or walkway along the road.

Rating: Fair

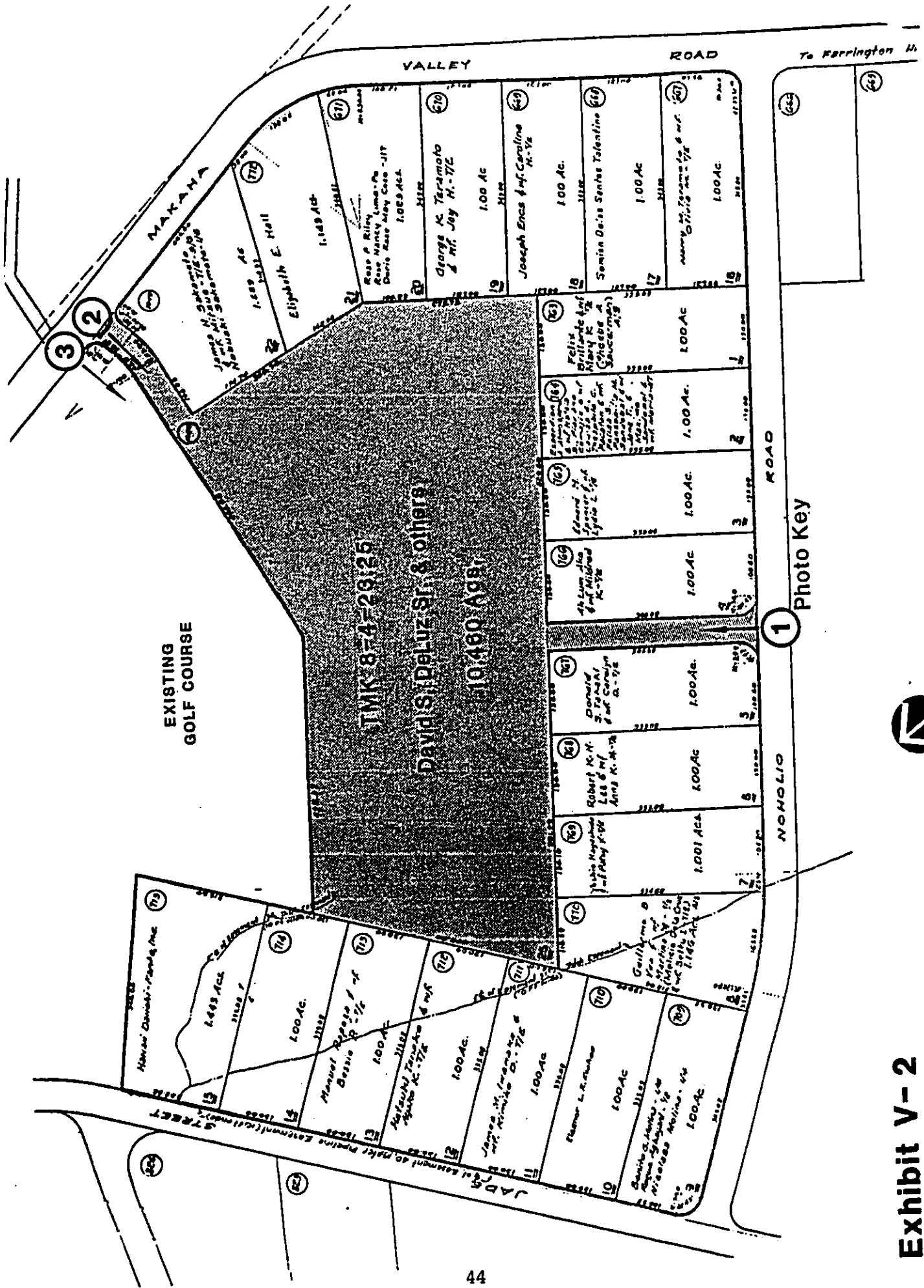


Exhibit V-2  
Alternative Site 1 1"=200'



1



2



3

**Exhibit V-3  
Photos of Site 1**

#### Water

Existing 4" water lines along Noholio Road and Makaha Valley Road are inadequate to service the school. To provide adequate fire protection, an 8" water main along Jade Street could be extended along Noholio Road to Makaha Valley Road, and down Makaha Valley Road to Farrington Highway, creating a loop system. Another alternative is to install a 12" line along Makaha Valley Road from Farrington Highway to the site access on Noholio Road. Existing fire hydrants on Jade Street are not within the required 250' of the site via public access so new hydrants must also be provided. The existing water pressure and supply is adequate for this.

Rating: Poor

#### Wastewater

The existing 10" sewer main on Jade Street could be extended 1,000' along Noholio Street to service the site. There is no existing sewer system along Noholio or Makaha Valley Road.

Rating: Fair

#### Drainage

There is no existing drainage facility on or off the site. An on-site drainage system must be developed to handle the additional runoff resulting from site development. This is particularly a factor due to the sloping nature of the site.

Rating: Poor

#### Pedestrian Accessibility

Pedestrians have very restricted access to the site. It is a flag lot with one 40' x 300' access to Noholio and one such access to Makaha Valley Road. The rest of the site is surrounded by privately owned land.

Rating: Poor

#### Vehicular/School Bus Accessibility

The site is a flag lot with restricted access.

Rating: Poor



Public Bus Service

The public bus system has a shuttle that runs on Makaha Valley Road and Farrington Highway from the Makaha Resort to Nanakuli, passing the site at one hour intervals. Students from the Kaena side of Makaha Valley Road would have to catch the major bus line on Farrington and then transfer to the shuttle. The frequency of the shuttle is insufficient, and the major bus line on Farrington Highway is 3/4 mile from the site.

Rating: Poor

Traffic Safety

Access to the site is via Noholio Road and Makaha Valley Road. Both are safe through streets potentially capable of handling heavy traffic.

Rating: Good

Pedestrian Safety

There are no existing walkways to the site, but they would be provided with necessary road improvements.

Rating: Fair

Highway Noise

The site is 4,000' from Farrington Highway.

Rating: Good

Industrial/Agricultural Nuisances

The site is free from any nuisances of agricultural or industrial activities.

Rating: Good

Existing Use/Displacement

The site is vacant and unused.

Rating: Good

Land Ownership

Site 1 is owned in fee by David S. DeLuz Sr. and others. It is currently for sale.

Rating: Poor

Proximity to Student Population

57% of the present students in the service area qualify for bus subsidy.

Rating: Poor

Visibility/Identity

Site 1 is located just 400' from the Jade Street boundary of the service area, and is on the mauka edge of the service area's major population, thus not centrally located. Also, the site has extremely poor visibility from the access roads because it is a flag lot. Three sides of the site are surrounded by one acre agricultural lots which block visibility to the site. On the 4th side is the private golf course.

Rating: Poor

Interference with Institutions

The site is not adjacent to a hospital, rest home, or secondary school. The Leeward Nursing Home is located at 84-390 Jade Street, 1/4 mile from the site.

Rating: Good

## EVALUATION OF SITE 2

### Size

Site 2 consists of 2 parcels; TMK 8-4-20:14 of 4.838 acres, a flag lot with access from Makaha Valley Road; and a 3.16 acre portion of TMK 8-4-20:1, for a total of 8.0 acres.

Rating: Good

### Shape

The site has an average length-width ratio of 1.1:1.0.

Rating: Good

### Slope

The site has a minimum slope of 8% along the west edge although it increases to 20% along the stream on the east edge. The average slope of the site is 13%.

Rating: Poor

### Soils

Ewa stony silty clay soils cover the majority of this site. The soil is over 5' deep, has moderate shrink swell potential and permeability, and high shear strength.

Rating: Fair

### Aesthetic Value

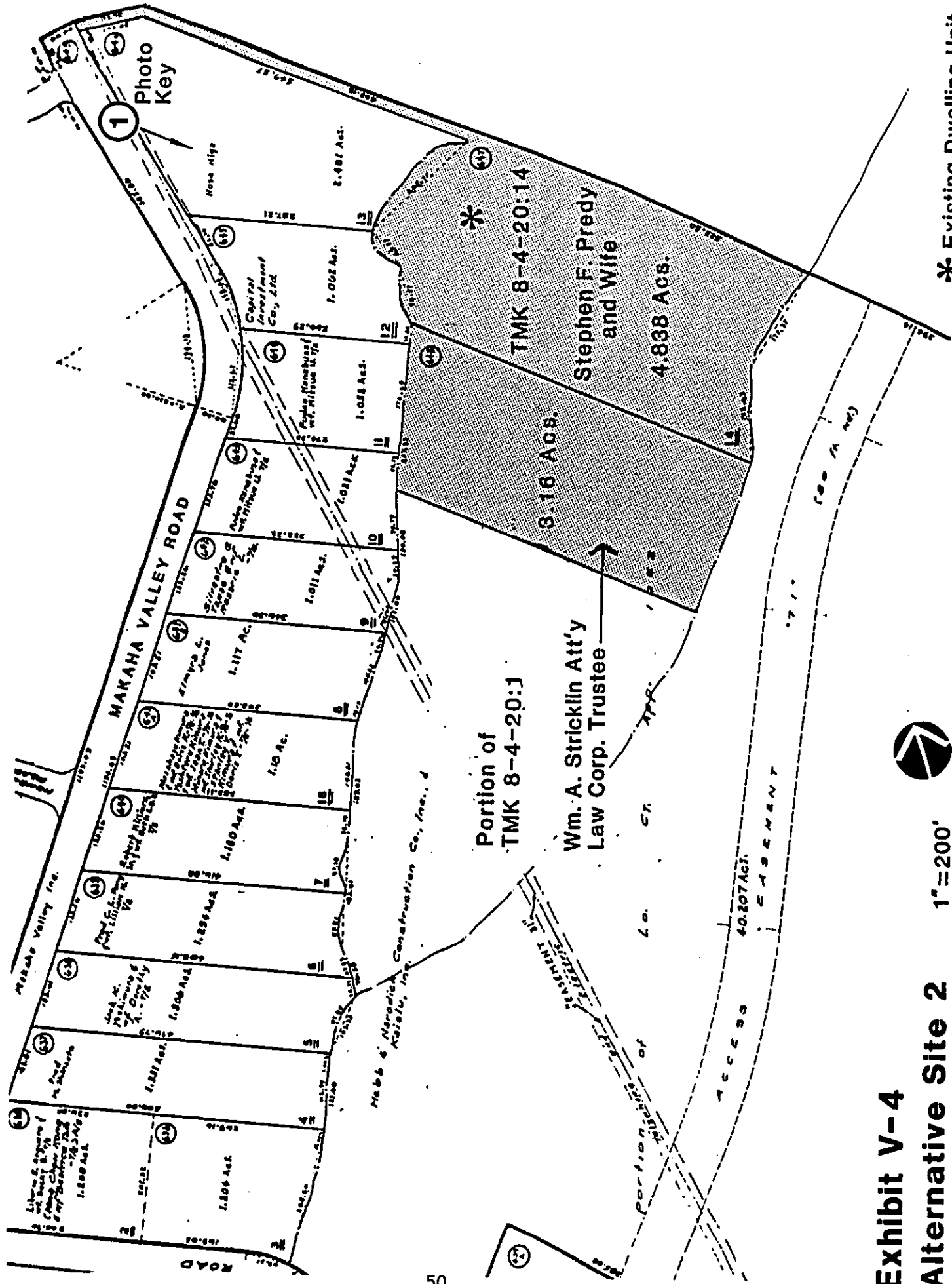
The site, located along a stream at the base of Kamaileunu Ridge, has a beautiful natural setting with expansive views.

Rating: Good

### Roadway

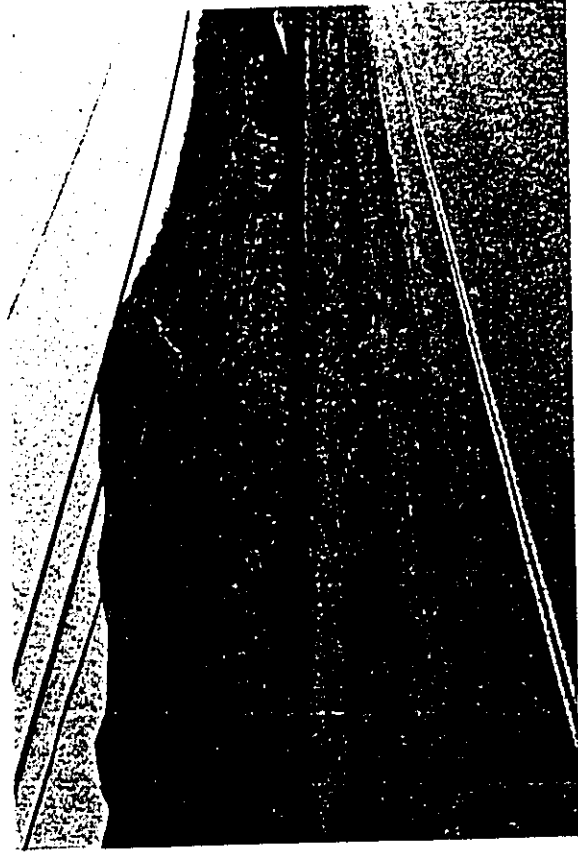
The site is accessible from Makaha Valley Road, a 2-lane a.c. road with 60' R-O-W.

Rating: Fair



**Exhibit V-4**  
**Alternative Site 2**    1"=200'

\* Existing Dwelling Unit



1

**Exhibit V-5  
Photo of Site 2**

### Water

The existing 4" water line along Makaha Valley Road is inadequate to provide fire protection from the single access point on Makaha Valley Road. A new 12" main line must be developed along Makaha Valley Road from Farrington Highway, a distance of 4,300'.

Rating: Poor

### Wastewater

The site is located in the "No Pass Zone" where cesspools are not allowed, so the public wastewater system would have to be utilized. The closest public sewer line which can be tied into is the 10" main on Jade Street, 3,300' from the site access on Makaha Valley Road.

Rating: Poor

### Drainage

The center of the site contains a natural drainage swale for mountain runoff in addition to the stream along the east edge. Adequate drainage for this water would have to be provided as there is no existing on or off site system to utilize.

Rating: Poor

### Pedestrian Accessibility

Site 2 is a flag lot with a 20' x 650' access way to Makaha Valley Road. The remaining land between the road and the site is privately owned.

Rating: Poor

### Vehicular/School Bus Accessibility

The site's 20' wide access is not wide enough for an entry drive to the school. This may require obtaining a R-O-W easement from adjacent landowners or possibly even purchasing additional land.

Rating: Poor

### Public Bus Service

The public bus system has a shuttle that runs on Makaha Valley Road and Farrington Highway from the Makaha Resort to Nanakuli, passing the site at one hour intervals. Students from the Kaena side of Makaha

Valley Road would have to catch the major bus line on Farrington and then transfer to the shuttle. The frequency of the shuttle is insufficient, and the major bus line on Farrington Highway is 3/4 mile from the site.

Rating: Poor

Traffic Safety

Access is from Makaha Valley Road, a through street which is potentially capable of handling school traffic.

Rating: Good

Pedestrian Safety

Makaha Valley Road does not currently have walkways or shoulders. These would be provided with road improvements.

Rating: Fair

Highway Noise

The site is over 3/4 mile from Farrington Highway.

Rating: Good

Industrial/Agricultural Nuisances

The site is free from any nuisances of agricultural or industrial activities.

Rating: Good

Existing Use/Displacement

The site contains one structure that is uninhabited.

Rating: Good

Land Ownership

The site consists of 2 parcels with different landowners.

Rating: Poor

Proximity to Student Population

76% of the present student population qualifies for bus service.

Rating: Poor

Visibility/Identity

The site is not centrally located within the service area since it is at the mauka edge of the area's concentrated population. Neither is the site visible from Makaha Valley Road due to the long, narrow access way of the flag lot.

Rating: Poor

Interference with Institutions

The site is not adjacent to a hospital, rest home, or secondary school.

Rating: Good



## EVALUATION OF SITE 6

### Size

The site is one parcel, TMK 8-5-2:38, and is 8.623 acres.

Rating: Poor

### Shape

The average length-width ratio is 1.3:1.0.

Rating: Good

### Slope

The site is essentially flat, with an average slope of 1/2%.

Rating: Good

### Soils

Site 6 primarily consists of coral outcrop with a thin layer (usually less than 2' deep) of Mamala stony silty clay loam over it. The soils characteristics include low shrink swell potential, high shear strength, and moderate permeability.

Rating: Fair

### Aesthetic Value

The site is primarily flat and open, with tall grasses and a few large Kiawe trees. There are a few coconut palms near existing residences which could be saved, and the view toward the ridge could be enhanced.

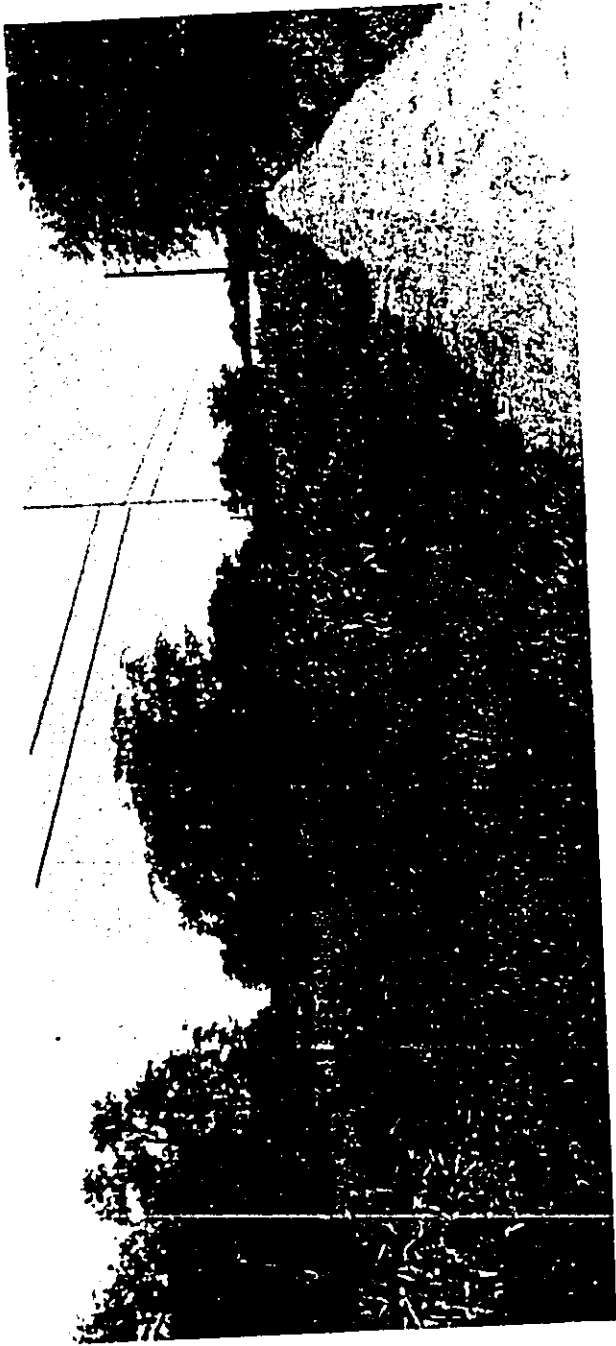
Rating: Fair

### Roadway

Three roads provide potential access to this site. Lower Kaulawaha Road and the Ewa portion of Mahinaau Road have adequate right-of-ways (50' and 44' respectively) but the paved roadway is not currently wide enough. Ala Akau Street is currently adequate to service the school. It handles two way traffic plus a parking lane on the Ewa side. It is constructed of a.c. paving with a concrete roll-curb and gutters, and walkway on one side.

Rating: Good





1



2

**Exhibit V-7**  
**Photos of Site 6**

### Water

The site has adequate water pressure and capacity available from the 12" main along Kaulawaha Road and the 8" main along Ala Akau Street. Connection to the 8" main will require an easement from the Hawaii Housing Authority (HHA) and consent from Uluwehi Homeowners Association. There are 2 existing fire hydrants along Kaulawaha Road and 3 along Ala Akau which can service the site as well. Additional hydrants may be needed along Kaulawaha Road.

Rating: Good

### Wastewater

There is an 8" municipal sewer main along Ala Akau Street which can service the school site. Connection to it will require an easement from the HHA and consent from Uluwehi Homeowners Association.

Rating: Good

### Drainage

Ulu Wehi housing development has a drainage system with an underground 24" line along the site boundary on Ala Akau Street and gutters in the street which intercept current runoff from the site. However, this drainage line has no existing stub-outs which may be tied into from the site. Due to the levelness of the site, drainage facilities may be needed to handle surface drainage.

Rating: Poor

### Pedestrian Accessibility

The site has pedestrian access from three sides.  
Rating: Good

### Vehicular/School Bus Accessibility

The site is accessible from one through street and two dead-end streets.

Rating: Fair

### Public Bus Service

The major busline on Farrington Highway is less than 1/4 mile from the site.

Rating: Fair

### Traffic Safety

Although lower Kaulawaha Road is a through street due to its connection with Mahinaau Road and Maiuu Road, it is not likely that the latter two roads would be improved to adequately handle the school traffic from Site 6. Therefore Kaulawaha Road is not considered as a through street for this criterion. Essentially, access to Site 6 is via dead-end streets.

Rating: Poor

### Pedestrian Safety

There is an existing walkway along Ala Akau across from the school site. However, walkways should be provided along the site side of Ala Akau as well as along Kaulawaha Road and Mahinaau Road.

Rating: Fair

### Highway Noise

The site is less than 1,000' from Farrington Highway and is not shielded by existing buildings.

Rating: Poor

### Industrial/Agricultural Nuisances

The site is free from any nuisances of agricultural or industrial activities.

Rating: Good

### Existing Use/Displacement

The site contains 6 families/residences which would be displaced.

Rating: Poor

### Land Ownership

The parcel is owned by Teuira Tavares.

Rating: Fair

### Proximity to Student Population

33% of the present students qualify for bus service.

Rating: Fair

Visibility/Identity

The site is centrally located and has good visibility from the streets on three sides, plus it is somewhat visible from Farrington Highway.

Rating: Good

Interference with Institutions

The site is not adjacent to a hospital, rest home, or secondary school.

Rating: Good

## EVALUATION OF SITE 7

### Size

The site consists of two parcels: TMK 8-5-2:37 & 39 totalling 7.064 acres.  
Rating: Good

### Shape

The average length-width ratio of the site is 1.0:1.3.  
Rating: Good

### Slope

The average slope of the site is 1/2-1%.  
Rating: Good

### Soils

Site 7 consists primarily of coral outcrop and Mamala stony silty clay loam as described for Site 6.  
Rating: Fair

### Aesthetic Value

This site is very flat and open with tall grasses and a few large Kiawe trees. There is little in the way of natural features except the view to Puu Kamaileunu. The site has the potential of being an attractive campus through landscaping.

Rating: Fair

### Roadway

The Ewa side of the site is accessible from Ala Akau Street, which is currently wide enough to handle school traffic. Its right-of-way is 60'. The mauka side of the site is accessible from Mahinaau Road of which the 44' R-O-W and 10' wide paving extends half the distance of that side. Mahinaau Road would need widening and improvements to meet school needs.

Rating: Good

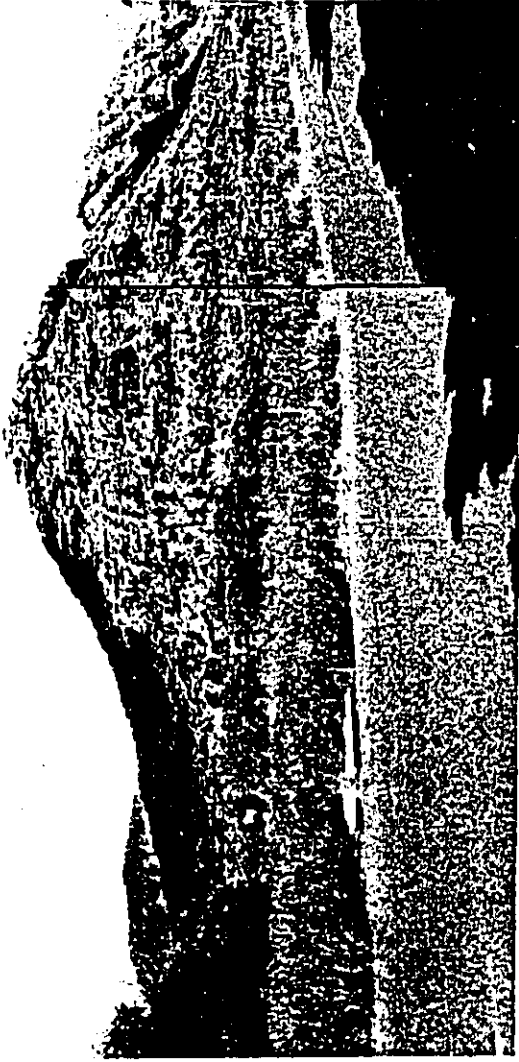
### Water

The site is serviced by an 8" main and fire hydrants along Ala Akau Street. An easement from HHA and consent from Uluwehi Homeowners Association will be required prior to connection to the water main.

Rating: Good







**Exhibit V-9  
Photos of Site 7**

Wastewater

An 8" sewer main along Ala Akau Street is adequate to meet school needs, although connection to it will require an easement from HHA and consent from Uluwehi Homeowners Association.

Rating: Good

Drainage

Ulu Wehi housing development has a drainage system with an underground 24" line along the site boundary on Ala Akau Street and gutters in the street which intercept current runoff from the site. However, this drainage line has no existing stub-outs which may be tied into from the site. Due to the levelness of the site, drainage facilities may be needed to handle surface drainage.

Rating: Poor

Pedestrian Accessibility

The site has access from two opposite sides of the site.

Rating: Good

Vehicular/School Bus Accessibility

The site is accessible by two dead-end streets.

Rating: Fair

Public Bus Service

The site is less than 1/2 mile from the major bus line on Farrington Highway.

Rating: Fair

Traffic Safety

Access to the site is via two dead-end streets.

Rating: Poor

Pedestrian Safety

There is an existing walkway along the residential side of Ala Akau Street extending from Farrington Highway to the site. An additional walkway should be provided on the other side of Ala Akau Street.

Rating: Good

Highway Noise

The site is over 1,000' from Farrington Highway.

Rating: Good

Industrial/Agricultural Nuisances

The site is free from any nuisances of agricultural or industrial activities.

Rating: Good

Existing Use/Displacement

The site is currently being used for residences and minimal grazing. Residents of 4 dwelling units (3 single family and 1 duplex units) must be relocated.

Rating: Poor

Land Ownership

The site has a separate landowners for each of the 2 parcels.

Rating: Poor

Proximity to Student Population

43% of the present students qualify for bus service.

Rating: Fair

Visibility/Identity

The site is fairly centrally located and has good visibility from Ala Akau Street. It is partially visible from Farrington Highway.

Rating: Good

Interference with Institutions

The site is not adjacent to a hospital, rest home, or secondary school.

Rating: Good

## EVALUATION OF SITE 9

### Size

The site is an 8.0 acre portion of TMK 8-5-3:30 and is not adjacent to a park.

Rating: Good

### Shape

The length-width ratio is 1.0:1.0.

Rating: Good

### Slope

The site has an average slope of 1%.

Rating: Good

### Soils

The site consists of coral outcrop and Mamala soil as described for Site 6.

Rating: Fair

### Aesthetic Value

The site is nearly level, covered fairly densely with Kiawe and Haole Koa. There is little in the way of natural aesthetic features, however proper landscaping can make this site an attractive campus.

Rating: Fair

### Roadway

Ala Hema Street provides access to the site. The street has a right-of-way of 60' which has been adequately developed including a 32' a.c. roadway, concrete curb with gutters, and a walkway along the residential side.

Rating: Good

### Water

The existing 8" water main and fire hydrants along Ala Hema Street are adequate to meet the school needs.

Rating: Good





1

**Exhibit V-11**  
**Photos of Site 9**

Wastewater

An existing 8" sewer line along Ala Hema Street can provide adequate service to the school, although connection to it will require an easement from HHA.

Rating: Good

Drainage

While there is no existing drainage facility on the site, there is a stub-out to the site from the existing 8' x 5' concrete box drain beneath Ala Hema Street.

Rating: Fair

Pedestrian Accessibility

The site has unrestricted access from Ala Hema Street.

Rating: Fair

Vehicular/School Bus Accessibility

Ala Hema Street is a cul-de-sac and is the only road serving the site.

Rating: Poor

Public Bus Service

The site is less than 1/2 mile from the major bus line on Farrington Highway.

Rating: Fair

Traffic Safety

Access to the site is via a dead-end street only.

Rating: Poor

Pedestrian Safety

There is an existing walkway along the residential side of Ala Hema from Farrington Highway to just across the street from the site. The walkway is separated from vehicular traffic by a narrow planting strip. An additional walkway may be added on the Ewa side of Ala Hema.

Rating: Good

Highway Noise

The site is just over 1,000' from Farrington Highway and is shielded by existing houses.

Rating: Good

Industrial/Agricultural Nuisances

The site is adjacent to, and downwind from, an existing poultry farm from which odors are periodic.

Rating: Poor

Existing Use/Displacement

Site 9 is vacant and unused.

Rating: Good

Land Ownership

The site is owned by World Union Industrial Corporation, Ltd.

Rating: Fair

Proximity to Student Population

60% of the present students in the service area qualify for bus service.

Rating: Poor

Visibility/Identity

The site is at the far Ewa side of the service area, not centrally located, and has a street (Ala Akau) along one side.

Rating: Fair

Interference with Institutions

The site is not adjacent to a hospital, rest home, or secondary school.

Rating: Good



## EVALUATION OF SITE 10

### Size

The site is located on the vacant land adjacent to the existing Waianae Intermediate School, portion of TMK 8-5-28:42, including Governor's Executive Order (G.E.O.) 2399 and portion of G.E.O. 2229. The site is 9.75 acres. The existing access road to Waianae Intermediate is also considered part of Site 10.

Rating: Poor

### Shape

The length-width ratio is 1.0:1.4.

Rating: Good

### Slope

The site is nearly flat, with an average slope of 0-1/2%.

Rating: Good

### Soils

The soils are coral outcrop and Mamala stony silty clay loam described for Site 6.

Rating: Fair

### Aesthetic Value

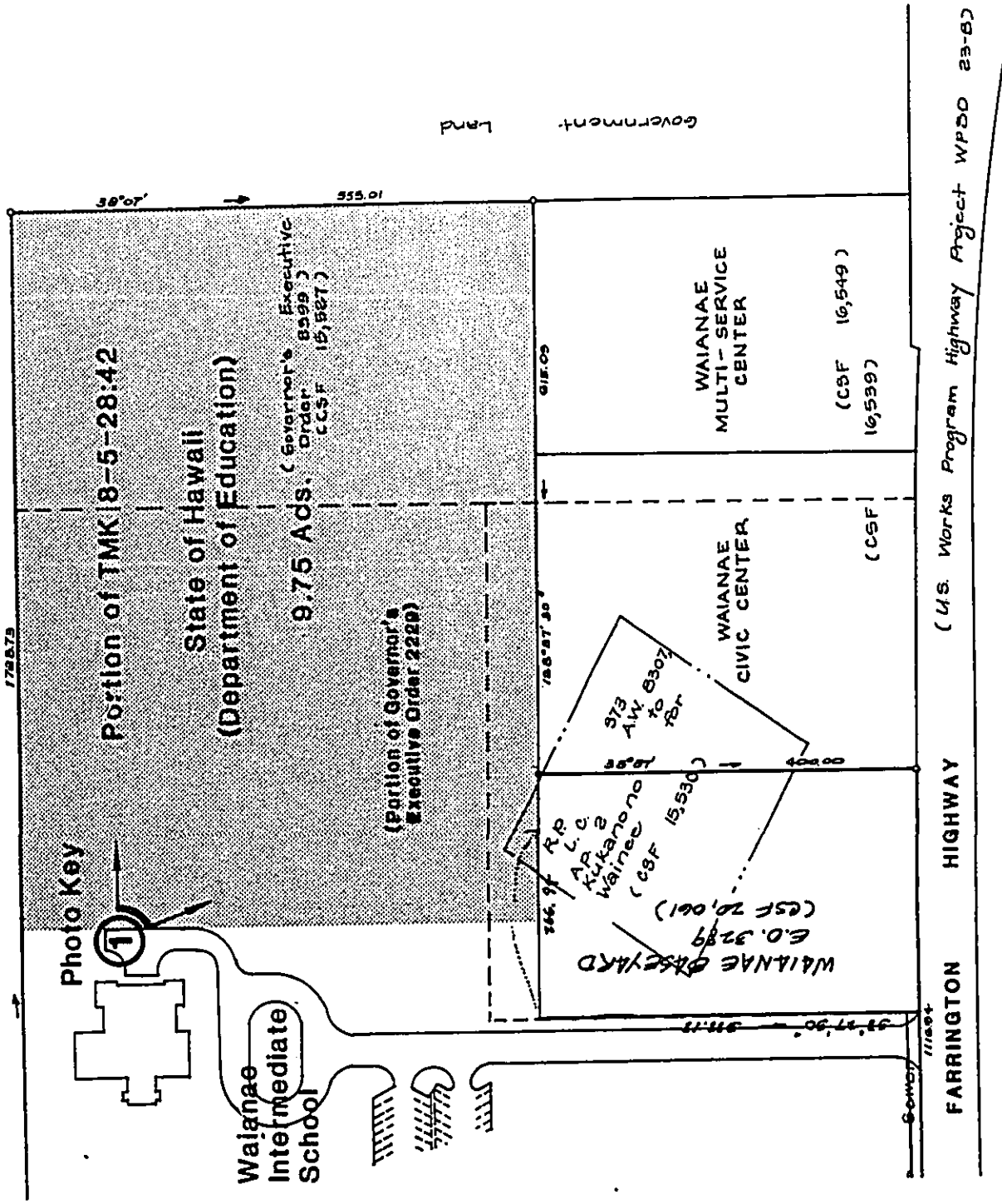
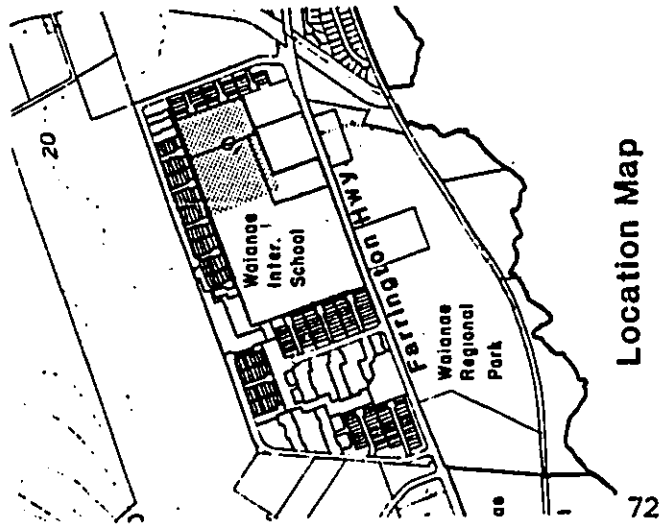
The site is primarily flat and open with low grasses. The Ewa and makai edges are more densely vegetated with Kiawe and Haole Koa. There are no special natural features on the site, although proper landscaping could create an attractive campus.

Rating: Fair

### Roadway

Access to the site will be from Farrington Highway which is the major road through the service area. The existing road has a left-hand turn lane and a traffic signal at the entry drive to Waianae Intermediate School. This is adequate to serve the site.

Rating: Good



1" = 169'

**Exhibit V-12**  
**Alternative Site 10**



1

**Exhibit V-13  
Photos of Site 10**

#### Water

Existing 4" lines along each of the "driveways" off Ala Hema Street currently end at the site boundary, but are inadequate for the schools needs. Water service to the site must come from the existing 12" and 20" mains along Farrington Highway. Existing fire hydrants along Farrington Highway are not within the required 250' of the site.

Rating: Fair

#### Wastewater

An extension from the 42" sewer main along Farrington Highway can provide adequate service to the school.

Rating: Fair

#### Drainage

An existing off-site drainage system along the mauka side of the site intercepts runoff from the housing development and transports it to Kaupuni Stream. If the school development increases runoff, or if the slope is insufficient to handle surface drainage, on-site drainage facilities will be necessary to handle it.

Rating: Poor

#### Pedestrian Accessibility

The site has relatively restricted access since there is no roadway adjacent to the site and all pedestrians must access via the intermediate school entry drive. In this sense, the site is similar to a flag lot.

Rating: Poor

#### Vehicular/School Bus Accessibility

As mentioned above, the site is similar to a flat lot since it has a very limited point of access.

Rating: Poor

#### Public Bus Service

The major bus line on Farrington Highway serves the site.

Rating: Good

Traffic Safety

Access to the site is via a major street, Farrington Highway, that is currently capable of handling heavy traffic due to the existing left hand turn lane and traffic signal.

Rating: Fair

Pedestrian Safety

There is an existing walkway along the mauka side of Farrington Highway which meets a walkway along the Kaena side of the intermediate school entry drive. A walkway along the elementary school side of the entry drive will also be needed.

Rating: Good

Highway Noise

The site is only 500' from Farrington Highway.

Rating: Poor

Industrial/Agricultural Nuisances

The site is 500' downwind from a chicken farm which may present periodic odors. Due to the distance from the farm and the existing houses between the site and the farm, any odors which may reach the site will be tolerable.

Rating: Fair

Existing Use/Displacement

The site is currently vacant and unused.

Rating: Good

Land Ownership

The site is owned by the State of Hawaii (Department of Education).

Rating: Good

Proximity to Student Population

50% of the present students in the service area qualify for bus service.

Rating: Poor

Visibility/Identity

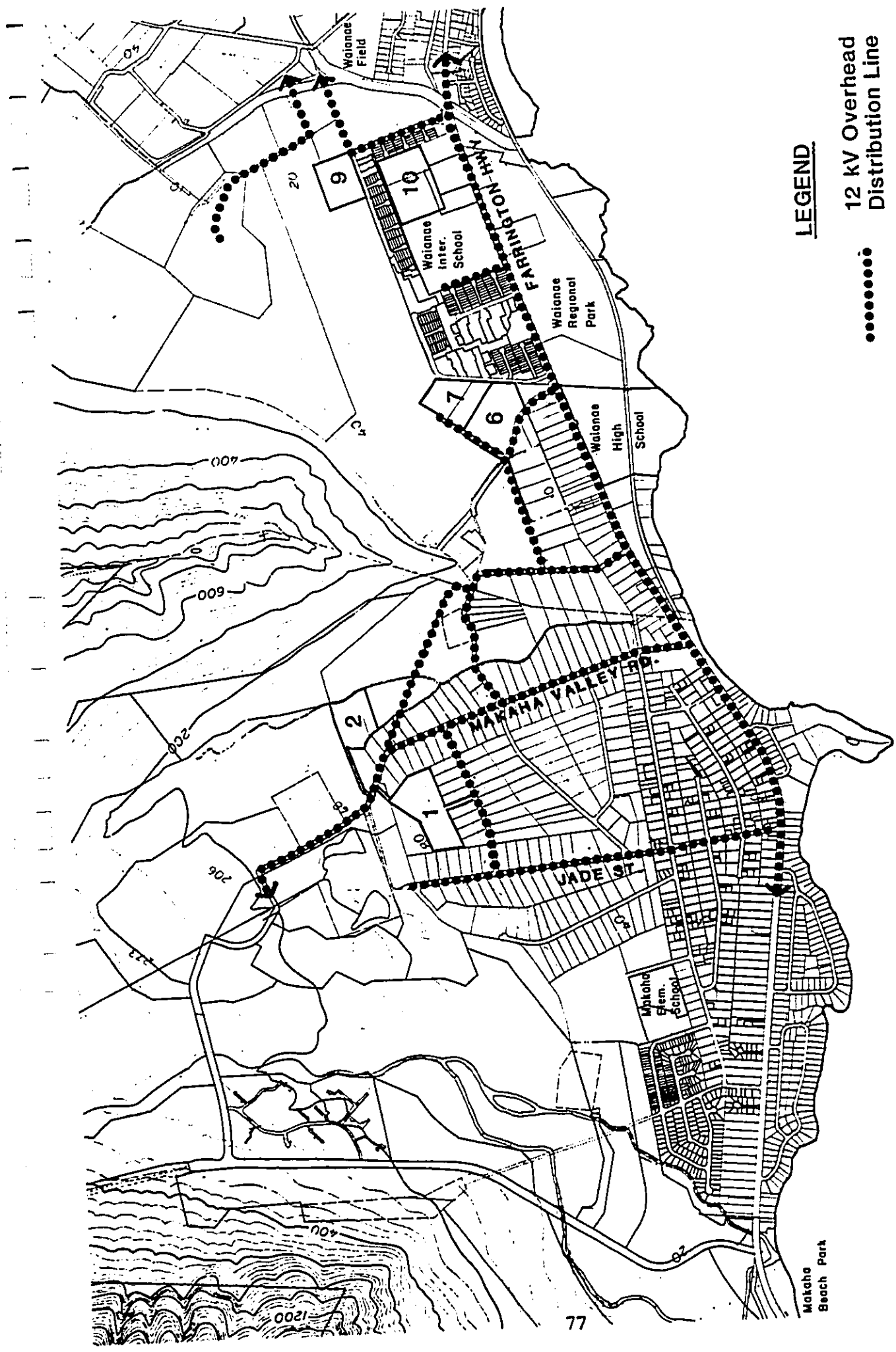
The site is not centrally located within the service area, and does not have adequate visibility. The site does not contain a separate access drive and must share the driveway to the existing Waianae Intermediate School. The proposed school's identity will be tied to the existing intermediate school.

Rating: Poor

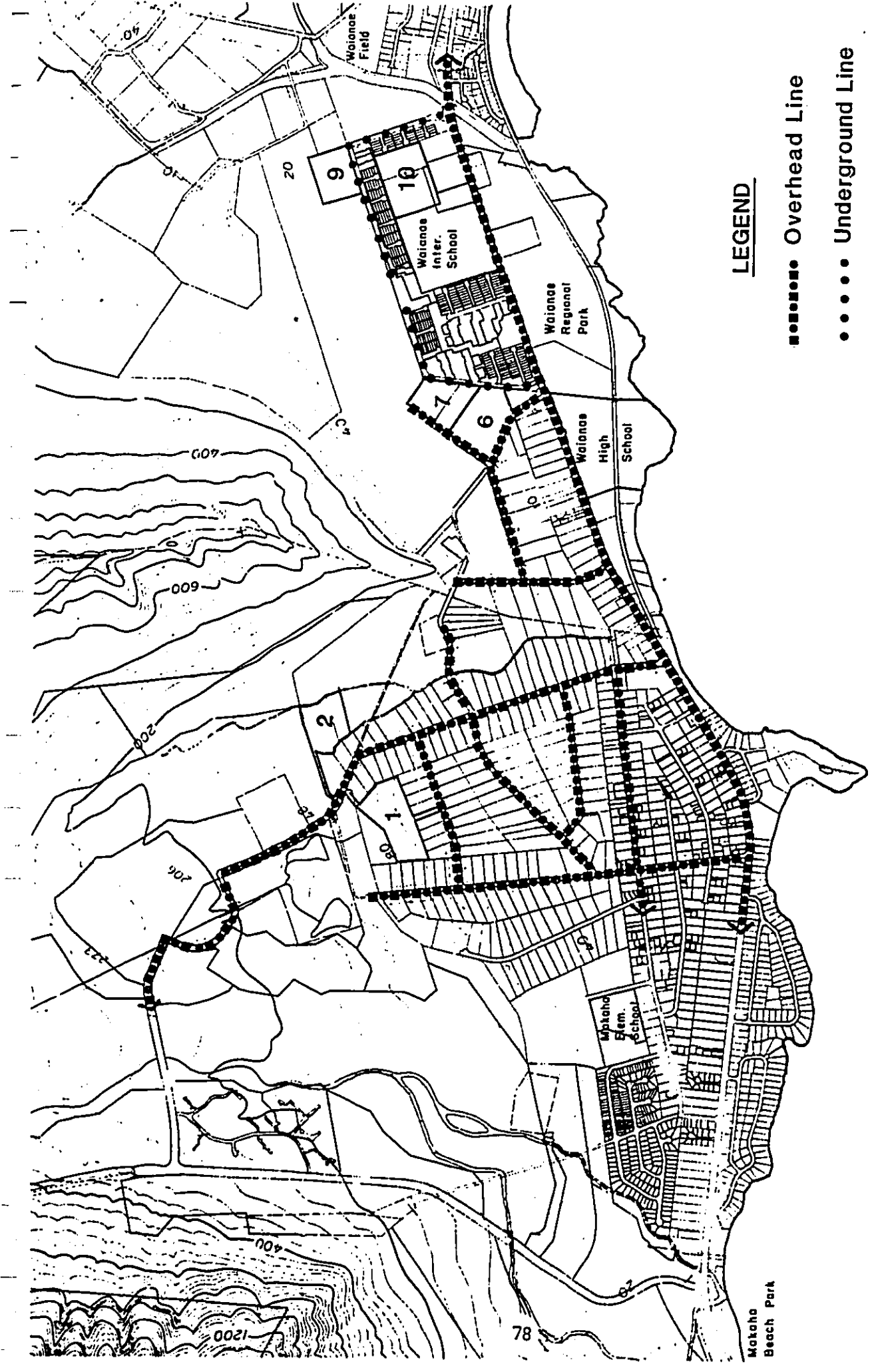
Interference with Institutions

There is no hospital or rest home near the site, however the site is adjacent to Waianae Intermediate School without an intervening street.

Rating: Poor

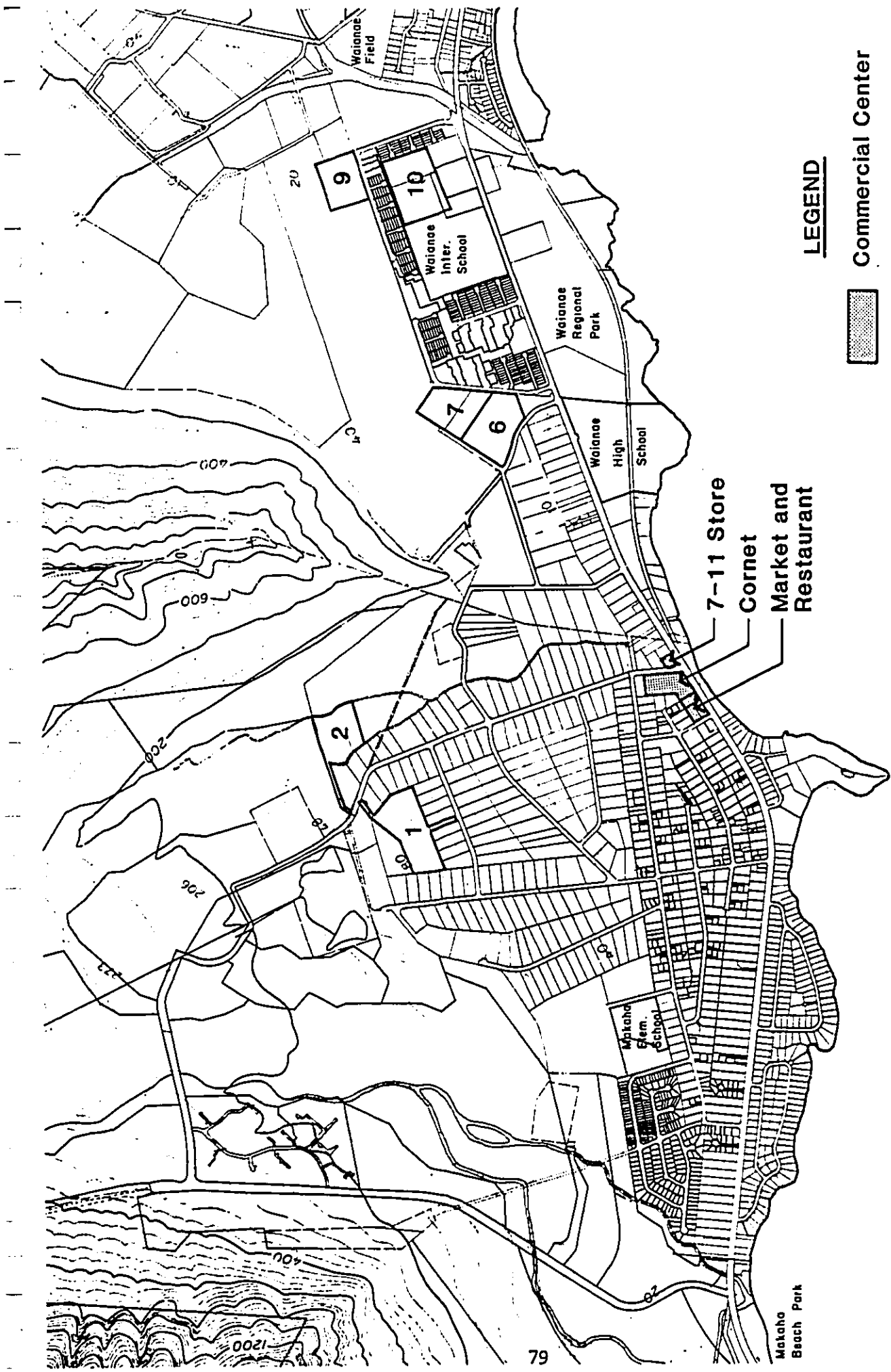


**Exhibit V-14**  
**Existing Electric Distribution Lines**



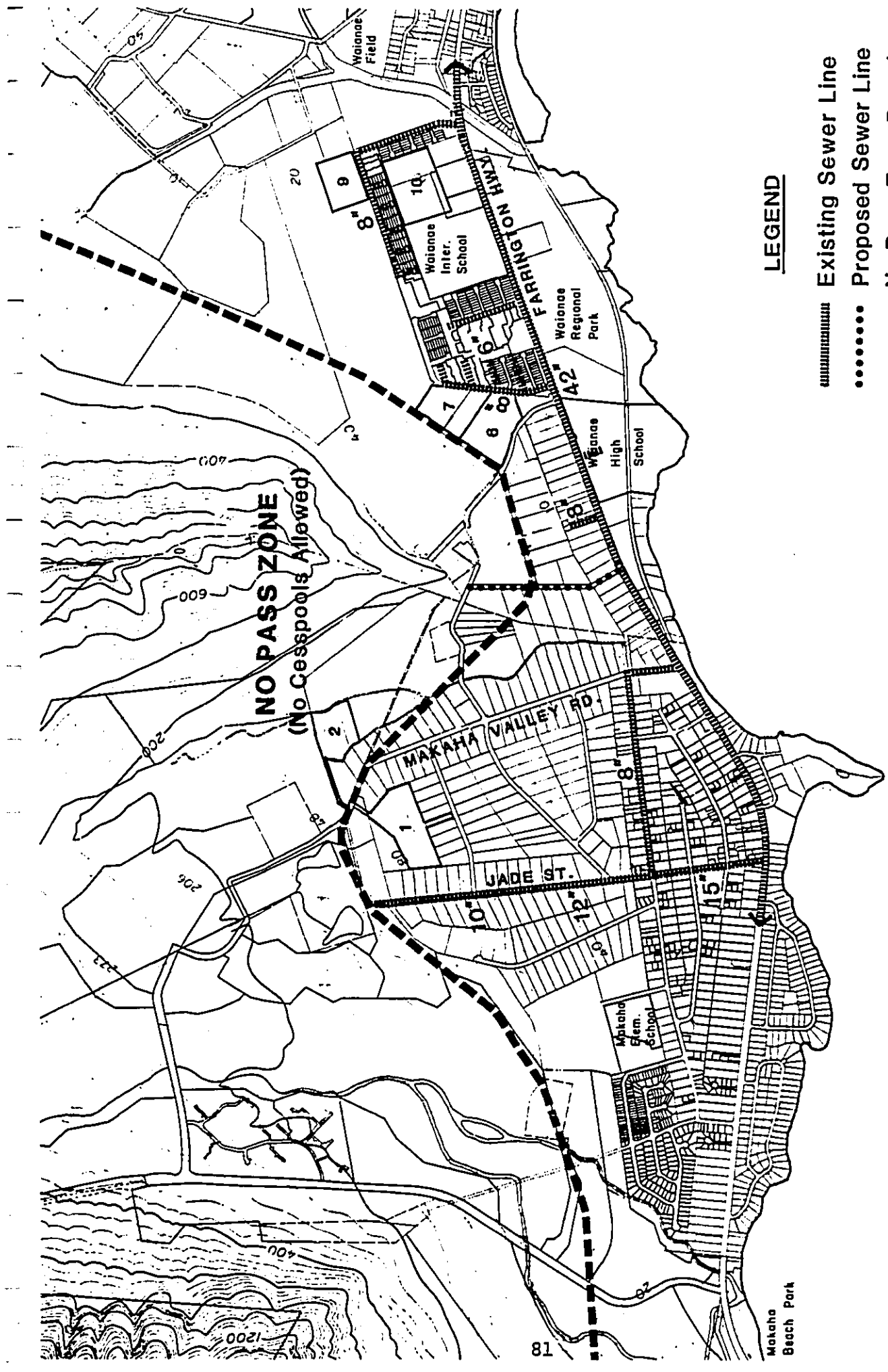
**Exhibit V-15**  
**Existing Telephone Lines**





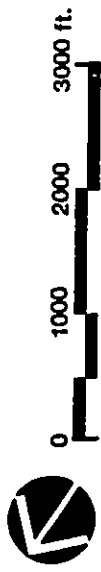
**Exhibit V-16**  
**Commercial Centers**



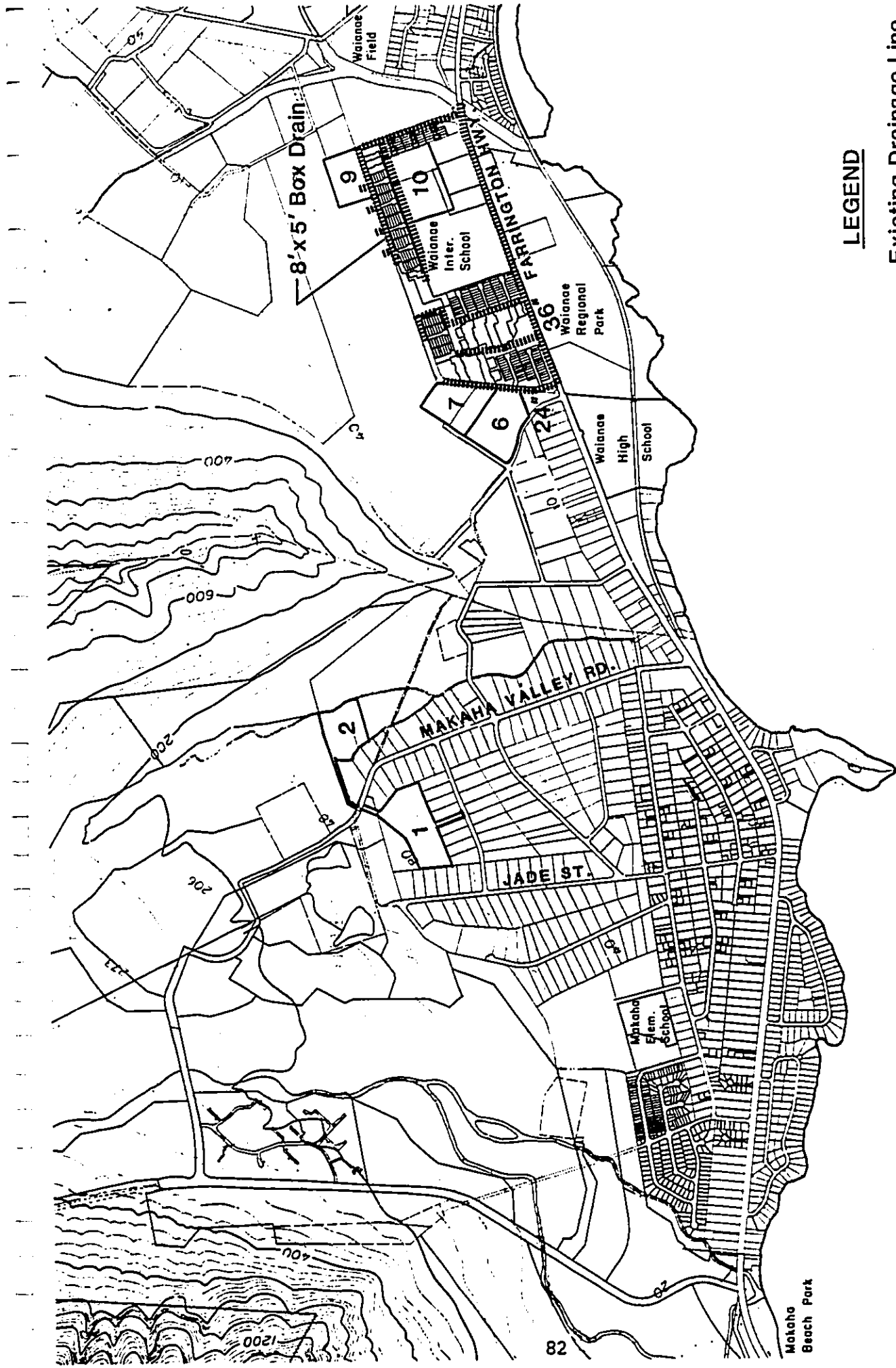


**LEGEND**

- Existing Sewer Line
- ..... Proposed Sewer Line
- No Pass Zone Boundary
- 8" Line Size



**Exhibit V-18  
Existing Public Wastewater System**



**LEGEND**

Existing Drainage Line



**Exhibit V-19  
Existing Drainage Facilities**

EXHIBIT V-20

PHYSICAL AND SOCIAL CRITERIA  
EVALUATION TABLE

CRITERIA	ALTERNATIVE SITES					
	1	2	6	7	9	10
<b><u>Physical Characteristics</u></b>						
Size	-	+	-	+	+	-
Shape	-	+	+	+	+	+
Slope	+	-	+	+	+	+
Soils	o	o	o	o	o	o
Aesthetics	+	+	+	+	+	+
Roadway	o	o	+	+	+	o
Water	-	-	+	+	+	o
Wastewater	o	-	-	-	o	-
Drainage	-	-	+	+	o	-
Pedestrian Accessibility	-	-	o	o	-	-
Vehicle Accessibility	-	-	o	o	o	+
Bus Service	-	-	o	o	o	+
Traffic Safety	+	+	-	-	-	o
Pedestrian Safety	o	o	o	+	+	+
Highway Noise	+	+	-	+	+	-
Industrial/Agricultural Nuisances	+	+	+	+	-	o
	<hr/>					
TOTAL + (Good)	5	6	7	10	8	5
TOTAL o (Fair)	4	3	5	4	5	6
TOTAL - (Poor)	7	7	4	2	3	5
<b><u>Social Characteristics</u></b>						
Existing Use/Displacement	+	+	-	-	+	+
Landownership	-	-	o	-	o	+
Proximity to Students	-	-	o	o	-	-
Visibility/Identity	-	-	+	+	o	-
Interference with Institutions	+	+	+	+	+	-
	<hr/>					
TOTAL + (Good)	2	2	2	2	2	2
TOTAL o (Fair)	0	0	2	1	2	0
TOTAL - (Poor)	3	3	1	2	1	3

B. COST CRITERIA

The comparative costs for each site based on land acquisition, on and off-site development, bus subsidy, and campus aides are described below and summarized on Exhibit V-22.

1. LAND ACQUISITION COST

Land acquisition costs include the land and improvement value of each site plus the cost to relocate any occupants. For comparative purposes, the 1985 assessed land value of each parcel was divided by the acreage of the parcel to arrive at a unit cost per acre. If an alternative school site consists of more than one parcel, the average cost per acre of all parcels is used. The calculated cost per acre for each alternative site is then multiplied by the acreage of each respective site resulting in the land cost of the site. The total 1985 assessed value for all improvements on each alternative site is used (without mathematical adjustment) as the improvement cost for each site.

The occupant relocation cost of each site is estimated by multiplying the number of occupants times \$1,800, including a fixed payment for moving expenses (\$300) and replacement housing payment (\$1,500).

The actual acquisition cost will be determined by negotiations based on appraisal reports by land appraisers or it will be determined by the courts in condemnation proceedings if agreement on the price cannot be reached.

Site 1

Land Cost	10.460 ac. x \$34,988.72	=	\$365,982.00
Improvements			-0-
Relocation			-0-
			<hr/>
			\$365,982.00

Site 2

Land Cost	8 ac. x \$29,401.56	=	\$235,212.48
Improvements	1 house	=	6,344.00
Relocation			-0-
			<hr/>
			\$241,556.48

Site 6

Land Cost	8.623 ac. x \$25,273.57 =	\$217,934.00
Improvements	5 houses, 1 car port=	123,061.00
Relocation	5 occupants x \$1,800=	<u>9,000.00</u>
		\$349,995.00

Site 7

Land Cost	7.064 ac. x \$32,023.60 =	\$226,214.71
Improvements	1 Duplex, 3 houses, 3 garages =	25,967.00
Relocation	5 occupants x \$1,800=	<u>9,000.00</u>
		\$261,181.71

Site 9

Land Cost	8 ac. x \$23,507.00 =	\$188,056.00
Improvements		-0-
Relocation		<u>-0-</u>
		\$188,056.00

Site 10

Land Cost	9.75 ac. x \$26,688.80 =	\$260,215.80
Improvements		-0-
Relocation		<u>-0-</u>
		\$260,215.80

2. ON-SITE DEVELOPMENT COST

School Facilities

The construction cost of the school buildings, parking areas and support facilities for each site is estimated to be approximately equal. Since the purpose of this section is for cost comparison among the various alternative sites, cost computations for factors which are approximately equal for all sites are not included in the cost evaluations below.

### Clearing

The cost for clearing and grubbing each site may vary depending on the type and density of vegetation and the number of buildings on the site. A major cost factor of clearing in the Waianae area is the location of a disposal site. The Nanakuli landfill will be closing in mid 1986, leaving the Makakilo landfill, with a \$200 per truck dumping fee, as the closest.

An approximate cost for clearing, grubbing, hauling and disposing a densely vegetated site (primarily Haole Koa and Kiawe) is \$4,000/acre<sup>5</sup>; \$2,500/acre for sites covered primarily with low grasses, shrubs, and some small trees. Each dwelling unit and related structures such as garages or sheds cost \$4,000 to demolish and dispose of.

#### Site 1

Clear trees            10.46 ac. x \$4,000 = \$41,840

#### Site 2

Clear trees            8 ac. x \$4,000 = \$32,000  
Demolish building    1 x \$4,000 = 4,000  
\$36,000

#### Site 6

Grub brush            8.623 ac. x \$2,500 = \$21,558  
Demolish buildings    5 x \$4,000 = 20,000  
\$41,558

#### Site 7

Grub brush            7.064 ac. x \$2,500 = \$17,660  
Demolish buildings    4 x \$4,000 = 16,000  
\$33,660

#### Site 9

Grub brush            8 ac. x \$2,500 = \$20,000

#### Site 10

Grub brush            9.75 ac. @ \$2,500 = \$24,375

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<sup>5</sup>Costs are based on estimates by private wrecking contractors, January, 1986.



### Rough Grading

The amount of rough grading work required for each alternative school site varies depending upon the slope. For comparison purposes, only site 2, with an average slope of 13%, will require considerable rough grading. A cost of \$3,000 per acre for 8 acres totals \$24,000 in rough grading cost for site 2. Importing top soil and fine grading for all 6 sites will be relatively equal.

### Water and Wastewater

On-site development costs will be nearly the same for most sites since they will be utilizing the public water and wastewater systems versus drilling a new well or constructing cesspools. However, providing on-site water and wastewater service for sites 1 and 2 will be more costly because they are both flag lots requiring additional on-site piping to reach the central, developable area of each lot. For Sites 6, 7, 9 and 10, the central, developable area is directly accessible from an adjacent off-site roadway.

#### Water

Site 1: 8" line from Noholio Road to end of flag access.

$$350 \text{ l.f.} \times \$84 = \$29,400$$

Site 2: 12" line from Makaha Valley Road to end of flag access.

$$650 \text{ l.f.} \times \$126 = \$81,900$$

#### Wastewater

Site 1: 8" line from Noholio Road to end of flag access.

$$350 \text{ l.f.} \times \$70 = \$24,500$$

Site 2: 8" line from Makaha Valley Road to end of flag access.

$$650 \text{ l.f.} \times \$70 = \$45,500$$

Drainage

On-site drainage improvements required for each site will be comparable in terms of cost. This is based on the relatively low and equal amount of rainfall to all sites and the similar permeability characteristics of the sites' soils. Even Site 9, which has adequate downstream drainage along Ala Akau and Ala Hema Streets, may require on-site drainage facilities due to the levelness of the sites.

3. OFF-SITE DEVELOPMENT COST

Water

Sites 6, 7, and 9 have adequate existing water mains adjacent to each site which can meet the ultimate water requirements for the school development. No off-site water system costs are allocated to these sites. The remaining alternative sites will require the following water system improvements:

Site 1: Extend 8" water line from Jade Street along Noholio Road to Makaha Valley Road.  
1900 l.f. x \$80 = \$152,000

Develop an 8" water line along Makaha Valley Road from Farrington Highway to an interconnection at Noholio Road.  
3100 l.f. x \$80 = 248,000

Total \$400,000

Site 2: Develop a 12" line along Makaha Valley Road to the site access from the existing 18" or 24" main along Farrington Highway.  
4300 l.f. x \$120 = \$516,000

Site 10: Install a new 8" line to the site from the existing 12" or 20" main along Farrington Highway.  
590 l.f. x \$80 = \$47,200

### Wastewater

Sites 6, 7, and 9 have adequate existing sewer lines adjacent to each site which can service the school development. No off-site wastewater costs are allocated to these sites. The remaining sites will require the following wastewater system improvements:

Site 1: Install 8" line along Noholio Street to the site access from the existing 10" main on Jade Street.

$$1000 \text{ l.f.} \times \$70 = \$70,000$$

Site 2: Install an 8" line along Noholio and Makaha Valley Road to the site access from the existing 10" main on Jade Street.

$$3300 \text{ l.f.} \times \$70 = \$231,000$$

Site 10: Install a new 8" line from the existing 42" main along Farrington Highway to the site.

$$590 \text{ l.f.} \times \$70 = \$41,300$$

### Drainage

No off-site drainage requirements are anticipated for any of the alternative sites.

### Electric and Telephone Service

No cost is anticipated to supply each alternative site with electric and telephone service.

### Access Roads (Exhibit V-21)

Alternative Sites 7, 9, and 10 are accessible from existing 32' wide roads with and curb and gutter which are adequate to service the school. The existing roads servicing the remaining sites require improvements including road widening to 32' minimum in 50' R-O-W's and 28' minimum in 44' R-O-W's, curb and gutter, and concrete sidewalks.

Site 1: Improve Makaha Valley Road or Jade Street from Farrington Highway to Noholio Road, and improve Noholio Road (50' R-O-W).

$$5000 \text{ l.f.} \times \$890 = \$4,450,000$$



(Bus subsidy cost for special education students is not included in this estimate because the distribution of these students is unpredictable at this time.)

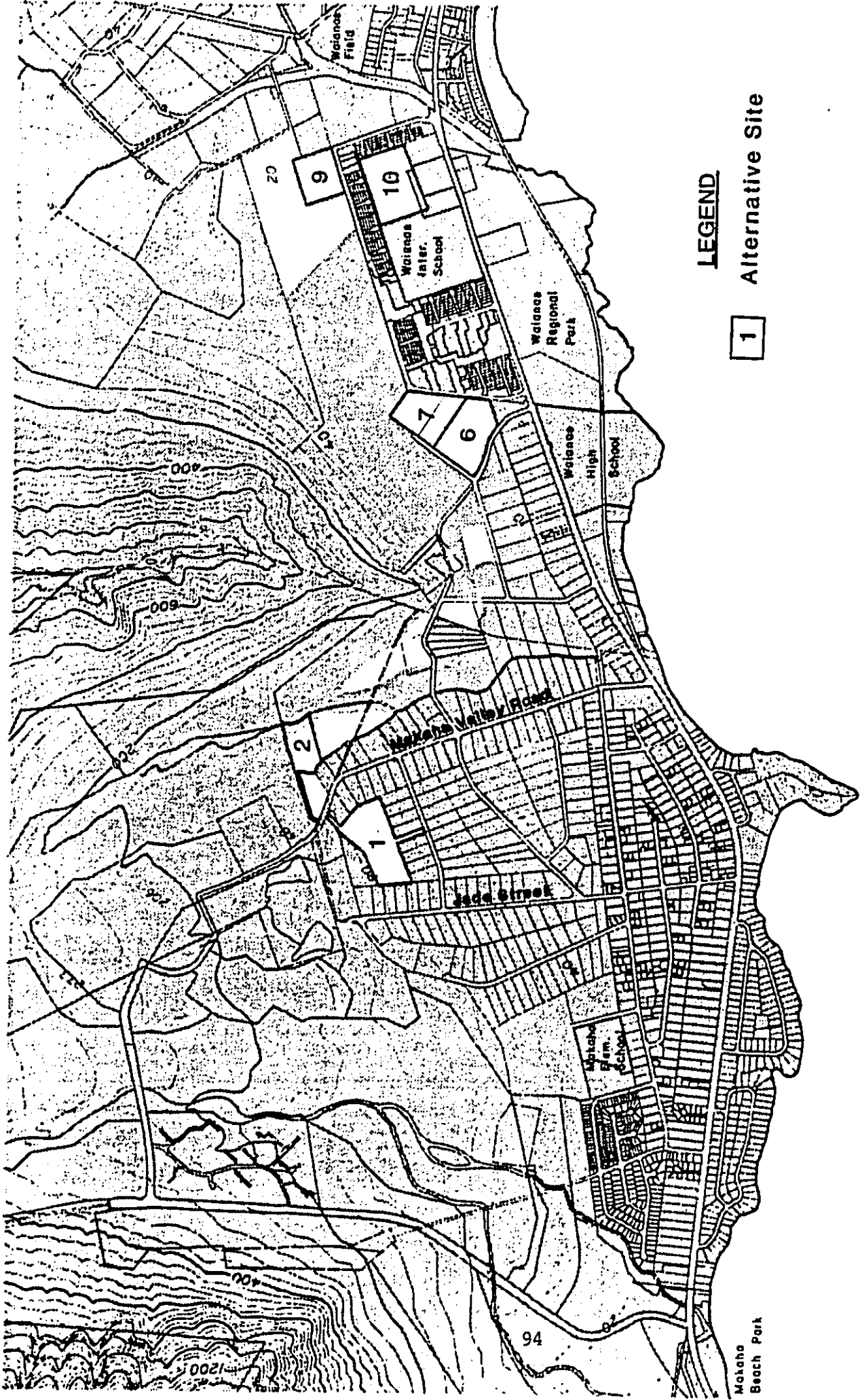
The total bus subsidy cost for each alternative site over the 10 year period is computed as follows:

Site	1989-1994		1994-1999		Total Bus Subsidy Over 10 Years
	No. Students x Cost/Student = Cost		No. Students x Cost/Student = Cost		
1	1767 x \$387 = \$683,829	+	2280 x \$493 = \$1,124,040		\$1,807,869
2	2356 x \$387 = \$911,772	+	3040 x \$493 = \$1,498,720		\$2,410,492
6	1023 x \$387 = \$395,901	+	1320 x \$493 = \$650,760		\$1,046,661
7	1333 x \$387 = \$515,871	+	1720 x \$493 = \$847,960		\$1,363,831
9	1860 x \$387 = \$719,820	+	2400 x \$493 = \$1,183,200		\$1,903,020
10	1581 x \$387 = \$611,847	+	2040 x \$493 = \$1,005,720		\$1,617,567

#### 5. CAMPUS AIDE COST

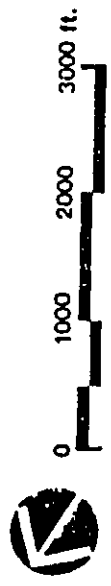
An allowance for two campus aides is provided to alternative Site 10 to help alleviate potential administrative problems which may result from the close proximity of the site to the existing Waianae Intermediate School. The annual cost for 2 aides in 1986 dollars is 12,000 each, or \$24,000. Computing this cost for a 10-year period beginning 1989, and assuming a 5% per year pay increase, the total campus aide cost for Site 10 is \$349,461.

The following table summarizes all the cost considerations for each site in addition to a summary of the physical and social site evaluation criteria ratings.



**LEGEND**

- 1 Alternative Site



**Alternative Sites**



EXHIBIT V-22  
PHYSICAL, SOCIAL AND COST CRITERIA  
SUMMARY EVALUATION

<u>EVALUATION CRITERIA</u>	<u>SITE 1</u>	<u>SITE 2</u>	<u>SITE 6</u>	<u>SITE 7</u>	<u>SITE 9</u>	<u>SITE 10</u>
<b>A. <u>PHYSICAL AND SOCIAL CRITERIA</u></b>						
<b>PHYSICAL CRITERIA</b>						
Total + (Good)	5	6	7	10	8	6
o (Fair)	4	3	5	4	5	5
- (Poor)	7	7	4	2	3	5
<b>SOCIAL CRITERIA</b>						
Total + (Good)	2	2	2	2	2	2
o (Fair)	0	0	2	1	2	0
- (Poor)	3	3	1	2	1	3
<b>B. <u>COST CRITERIA</u></b>						
<b>LAND ACQUISITION</b>						
Land	\$ 365,982	\$ 235,212	\$ 217,934	\$ 226,215	\$ 188,056	\$ 260,216
Improvements	-0-	6,344	123,061	25,967	-0-	-0-
Relocation	-0-	-0-	9,000	9,000	-0-	-0-
<b>SUBTOTAL</b>	<b>\$ 365,982</b>	<b>\$ 241,556</b>	<b>\$ 349,995</b>	<b>\$ 261,182</b>	<b>\$ 188,056</b>	<b>\$ 260,216</b>
<b>ON-SITE DEVELOPMENT</b>						
Clearing	\$ 41,840	\$ 36,000	\$ 41,558	\$ 33,660	\$ 20,000	\$ 24,375
Grading	-0-	24,000	-0-	-0-	-0-	-0-
Water	29,400	81,900	-0-	-0-	-0-	-0-
Wastewater	24,500	45,500	-0-	-0-	-0-	-0-
<b>SUBTOTAL</b>	<b>\$ 95,740</b>	<b>\$ 187,400</b>	<b>\$ 41,558</b>	<b>\$ 33,660</b>	<b>\$ 20,000</b>	<b>\$ 24,375</b>
<b>OFF-SITE DEVELOPMENT</b>						
Water	\$ 400,000	\$ 516,000	\$ -0-	\$ -0-	\$ -0-	\$ 47,200
Wastewater	70,000	231,000	-0-	-0-	-0-	41,300
Roads	4,450,000	3,916,000	979,000	-0-	-0-	-0-
Walkway	-0-	-0-	-0-	27,000	36,000	18,600
<b>SUBTOTAL</b>	<b>\$4,920,000</b>	<b>\$4,663,000</b>	<b>\$ 979,000</b>	<b>\$ 27,000</b>	<b>\$ 36,000</b>	<b>\$ 107,100</b>
<b>BUS SUBSIDY</b>	<b>\$1,807,869</b>	<b>\$2,410,492</b>	<b>\$1,046,661</b>	<b>\$1,363,831</b>	<b>\$1,903,020</b>	<b>\$1,617,567</b>
<b>CAMPUS AIDE</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>-0-</b>	<b>\$ 349,461</b>
<b>TOTAL COST</b>	<b>\$7,189,591</b>	<b>\$7,502,448</b>	<b>\$2,417,214</b>	<b>\$1,685,673</b>	<b>\$2,147,076</b>	<b>\$2,358,719</b>