A STAFF STUDY ON THE
SITE SELECTION AND
ENVIRONMENTAL IMPACT STATEMENT
FOR AN
INTERMEDIATE SCHOOL FOR THE
MAKAWAPO-PUKALANI-KULA AREA
MAUI, HAWAII

PREPARED BY
PLANNING BRANCH

DIVISION OF PUBLIC WORKS
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
SEPTEMBER 1978
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A STAFF STUDY ON THE SITE SELECTION FOR AN INTERMEDIATE SCHOOL FOR THE MAKAWAO-PUKALANI-KULA AREA

CHAPTER 1 INTRODUCTION

PROJECT BACKGROUND

A draft site selection report was prepared in October 1972 which recommended a 9.0-acre intermediate school site be located adjacent to the Eddie Tam Memorial Center in Makawao. The proposed school site was originally planned for 1,000 students in grades 6-8 and was scheduled to open in September 1978. A draft environmental impact statement (EIS) was subsequently prepared for the proposed Eddie Tam school site and circulated for public review in February 1973. However, the draft site selection report and EIS could not be finalized because of concerns raised regarding the impact of the proposed school site on land use policies and agricultural lands.

The study was subsequently suspended in October 1973 pending completion of:

1. The State Land Use Commission's 5-Year Boundary Review which was being conducted, and
2. The Maui County's General Plan Study which was being initiated for the Makawao-Pukalani area.

The site selection study and EIS was reinitiated in August 1975 after the State Land Use Commission completed their 5-Year Boundary Review in January 1975 and Maui County submitted a draft copy of their Makawao-Pukalani-Kula General Plan in August 1975. The Department of Education (DOE) revised the specifications for the proposed school which included:

1. Change in organization from grade levels 6-8 to 7-8.
2. Reduction of design enrollment from 1,000 to 500 students.
3. Delay in scheduled opening date from 1978 to the 1982-85 period. (Subsequently changed by DOE to 1983-85.)

The above changes required a major revision to the 1972 draft site study and EIS. This current site selection and
EIS incorporates all of the changes to date and provides the basis for selection of the proposed intermediate school.

SCOPE OF THE REPORT

This report provides the basis for the selection, analysis, and recommendation of alternative sites for an intermediate school for 500 students in grades 7-8 within the service area established by the DOE.

MAUI HIGH FEEDER COMPLEX

The DOE has prepared and adopted a long-range facilities development plan for Maui High School Complex. The plan includes the schools for the "Up-Country" area of Makawao-Pukalani-Kula. A new K-6 elementary school in Pukalani was opened in September 1976 for approximately 297 students. A new 7-8 intermediate school is also projected for tentative opening between 1983-85. The existing K-8 schools in Makawao and Kula will be reorganized to K-6 after the new intermediate school is provided.

Based on the above plans, the DOE has requested that a site be selected for a new 7-8 intermediate school for the Makawao-Pukalani-Kula area.

The proposed Makawao-Pukalani-Kula Intermediate School will be part of the Maui High Feeder Complex shown in Figures 1 and 2. The elementary schools feeding into this intermediate school will be Makawao, Pukalani and Kula Elementary Schools. Kahului, Haiku and Paia Elementary Schools will continue to feed directly into Maui High School until such time that the 7-8 graders are separated into an intermediate school. The Maui School District anticipates a long-range district-wide plan to delimit the elementary schools to grades K-6 and to provide separate 7-8 grade schools where feasible.

MAKAWAO-PUKALANI INTERMEDIATE

The proposed intermediate school is tentatively scheduled to open between 1983 and 1985 with approximately 350-400 students in grades 7-8. The enrollment is projected to increase to 500 students by 1995. The enrollment projections for the Maui High Complex and the Makawao-Pukalani Schools are provided in Table 1.

An examination of the figures also shows that the Makawao and Kula K-6 enrollment will be greater than the Pukalani enrollment until 1980. However, after 1985, the Pukalani enrollment will exceed the K-6 enrollment of both Makawao and Kula.
EXISTING SCHOOLS
1. Haiku Intermediate/Elementary
2. Kahului Intermediate/Elementary
3. Kula Intermediate/Elementary
4. Makawao Intermediate/Elementary
5. Pala Elementary
6. Puunene Intermediate/Elementary
7. Hana High

PROPOSED SCHOOLS
8. Putalani Elementary
9. Makawao Intermediate
MAUI HIGH
FEEDER COMPLEX

EXISTING
K-8 Haiku
K-8 Kahului
K-8 Kula
K-8 Makawao
K-8 Paia
K-8 Puunene

PROPOSED
K-8 Haiku
K-8 Paia
K-8 Kahului
K-6 Kula
K-6 Makawao
K-6 Pukalani (1976)

Maui High
9-12

Maui High
9-12

Makawao Intermediate
(1983-1995)

FIGURE 2
FEEDER SCHOOLS

STATE OF HAWAII • DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS • PLANNING BRANCH
# TABLE 1

**ENROLLMENT PROJECTIONS**

## MAUI HIGH COMPLEX

<table>
<thead>
<tr>
<th>Year</th>
<th>K-6</th>
<th>7-8</th>
<th>9-12</th>
<th>Total</th>
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<tr>
<td>1975 (Actual)</td>
<td>2128</td>
<td>718</td>
<td>1391</td>
<td>4237</td>
</tr>
<tr>
<td>1980</td>
<td>2393</td>
<td>638</td>
<td>1328</td>
<td>4359</td>
</tr>
<tr>
<td>1985</td>
<td>2600</td>
<td>700</td>
<td>1400</td>
<td>4700</td>
</tr>
<tr>
<td>1990</td>
<td>2850</td>
<td>750</td>
<td>1500</td>
<td>5100</td>
</tr>
<tr>
<td>1995</td>
<td>3090</td>
<td>866</td>
<td>1600</td>
<td>5550</td>
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## MAKAWAO-PUKALANI-KULA

<table>
<thead>
<tr>
<th>Year</th>
<th>Pukalani K-6</th>
<th>Makawao K-6</th>
<th>Kula K-6</th>
<th>Pukalani-Makawao-Kula 7-8</th>
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<tr>
<td>1975 (Actual)</td>
<td>230</td>
<td>375</td>
<td>283</td>
<td>309</td>
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<tr>
<td>1980</td>
<td>333</td>
<td>440</td>
<td>350</td>
<td>305</td>
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<tr>
<td>1985</td>
<td>475</td>
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<td>617</td>
<td>546</td>
<td>424</td>
<td>430</td>
</tr>
<tr>
<td>1995</td>
<td>760</td>
<td>600</td>
<td>460</td>
<td>500</td>
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CHAPTER 2
SELECTION OF ALTERNATIVE SITES

SERVICE AREA

The DOE's service area for the proposed intermediate school is shown in Figure 3. The school will serve the communities of Makawao, Pukalani, Ha'aliimaile, Kula, and scattered rural homes along the highways in the up-country area.

SELECTION CRITERIA

The alternative sites evaluated for this study are shown in Figure 4. The first three alternative sites - A, B, and C, were selected on the basis of clustering the intermediate school with each of the three elementary feeder schools in Makawao, Pukalani, and Kula. The remaining alternative sites were selected on the following additional criteria:

A. Sites must be adjacent to or within the State urban or rural zoned land. Since schools are permitted only within the State Land Use Urban District, this criteria will preclude the need for "spot zoning". The State Land Use Commission is generally against any request for spot zoning.

B. Sites should be located between the Makawao and Pukalani communities. The State Land Use Map shows approximately 500 acres of urban land in Makawao, 1,000 acres in Pukalani and approximately 350 acres in Kula. The DOE has also provided an estimate of the 1995 elementary student population as follows: Makawao-600; Pukalani-760; and Kula-350. Since the Makawao-Pukalani communities will provide 80% of the enrollment within a 3-mile area, the remaining alternative sites should be limited to the Makawao and Pukalani areas.

C. Sites must be below 1,800 ft. elevation. The County Board of Water Supply has no plans to develop adequate water service above this elevation in the Makawao-Pukalani area. Sites above this elevation must therefore develop their own water supply.

D. Sites should be within 0.5 miles of Haleakala Hwy., Makawao Ave., or Baldwin Ave. These roadways are the main thoroughfares through the school service area and provide access to the alternative sites. Most of the urbanized areas falls within 0.5 miles of the above roadways and have adequate access and utilities.

E. Sites which require no displacement of existing homes. Unoccupied sites should be considered over developed sites to minimize disruption of existing families, farms and facilities and to minimize acquisition costs.
FIGURE 3  SCHOOL SERVICE AREA

STATE OF HAWAII  •  DEPT. OF ACCOUNTING & GENERAL SERVICES

DIVISION OF PUBLIC WORKS  •  PLANNING BRANCH

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F. Sites must contain a minimum of 8 acres or 6-1/2 acres for school-park complexes. The acreage requirements for the alternative sites were computed in accordance with current DOE standards.

Alternative Sites D, E, F, G, H, I, and J were selected based on the preceding criteria. These sites along with Alternative Sites A, B, and C are shown in Figure 4 and described briefly in the following discussion.

DESCRIPTION OF ALTERNATIVE SITES

A. Site A

This site is adjacent to Makawao School. The site is shown in Figures 5 and 6 and is identified by TMK: 2-4-05:5 and TMK: 2-4-25:17 and por. 16. These parcels were selected for the intermediate school since they are contiguous to the school and minimize the displacement of existing homes. Expansion of the school mauka and makai of the existing site would require acquisition of an excessive number of existing homes and parcels.

B. Site B

This site is located within the existing 35-acre Pukalani school-park complex. The site is identified by TMK: 2-3-09:portion 26 and 35 as shown in Figures 7 and 8. The 25-acre park area is owned by Maui County and the 10-acre parcel has been committed for dedication to Maui County by the current landowners. The total utilization of the 35-acre site is proposed as follows: 6 acres for Pukalani Elementary, 6-1/2 acres for the intermediate school, and 22-1/2 acres for joint park-school playground facilities.

C. Site C

This site is within the 14.0-acre Kula Elementary School site as shown in Figures 9 and 10. The site is identified by TMK: 2-2-14:2. The siting of an intermediate school at this location will not require the acquisition of additional land. This 14-acre site is adequate in size to accommodate the existing elementary and proposed intermediate schools. The computation to establish the required acreage based on 90% usable area for site with 12-15% ground slope follows:

<table>
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<tr>
<th>Site Description</th>
<th>Acreage</th>
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<tr>
<td>Kula Elementary School (460 enroll.)</td>
<td>5 ac.</td>
</tr>
<tr>
<td>Intermediate School (500 enroll.)</td>
<td>+ 8 ac.</td>
</tr>
<tr>
<td>Total Required (100% usable)</td>
<td>13 ac.</td>
</tr>
<tr>
<td>Unusable Portion</td>
<td>+ 1 ac.</td>
</tr>
<tr>
<td>Total Required (90% usable)</td>
<td>14 ac.</td>
</tr>
<tr>
<td>Existing School</td>
<td>-14 ac.</td>
</tr>
<tr>
<td>Addition Required</td>
<td>0 ac.</td>
</tr>
</tbody>
</table>
FIGURE 7

SITE B

STATE OF HAWAI‘I

DEPT. OF ACCOUNTING & GENERAL SERVICES

DIVISION OF PUBLIC WORKS

PLANNING BRANCH
D. Site D

This site is located in Makawao and is situated adjacent to and makai of the Eddie Tam Memorial Park site as shown in Figures 11 and 12. It is identified by TMK: 2-4-01:por. 2 which is owned by Messrs. Munoz and Tokunaga. The site was used for pineapple cultivation until recently and has been left idle since then. The size of this alternative site has been reduced from 8 to 6-1/2 acres based on the use of adjacent park facilities for school use. This site has received the support of the Makawao community, Maui County, and Maui District DOE.

E. Site E

This site is adjacent to Site D as shown in Figures 11 and 12. The site is comparable to Site D except that the site size has been increased to 8 acres with frontage along Makani Road. This alternative site is provided in the event an agreement to utilize the existing Eddie Tam park facilities is unfeasible and the school is required to develop its own playground.

F. Site F

This site is across Makani Road from Site E as shown in Figures 11 and 12. The property is owned by B. Martin Luna and Robert L. Browning and is identified by TMK: 2-4-01:por. 1. The site was formerly cultivated in pineapple and is currently vacant.

G. Site G

This site is located between Makawao and Pukalani off of Laie Drive which is makai of Makawao Ave. as shown in Figures 12 and 13. It is identified by TMK: 2-4-01:por. 1 and is owned by B. Martin Luna and Robert L. Browning. The site was formerly used as a pineapple field but is now used as a pasture. The site size has been increased to 9 acres to account for less usable portions of the site which slope between 12 and 15%.

H. Site H

This site is located at the intersection of Haleakala Highway and Makawao Avenue in Pukalani as shown in Figures 14 and 15. The proposed realignment of Haleakala Highway will create an approximate 30-acre triangular parcel of pineapple field. The site is identified by TMK: 2-3-07:por. 8 and is owned by Maui Land and Pine Company.
FIGURE 11

SITES D, E AND F

STATE OF HAWAI'I

DEPT. OF ACCOUNTING & GENERAL SERVICES

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FIGURE 14  SITES H AND I

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DIVISION OF PUBLIC WORKS  •  PLANNING BRANCH

-19-
I. Site I

This site is mauka of Pukalani and adjacent to Haleakala Hwy. The site is shown in Figures 14 and 16 and is identified by TMK: 2-3-11:por. 2 which is owned by the Pires family. Approximately 10 acres of the land is being utilized for truck crops and pineapple. The remaining area consists of abandoned pineapple fields and undeveloped land.

J. Site J

This site is located along lower Kula Road makai of the Kula 200 subdivision and below the 1,800-foot elevation as shown in Figures 17 and 18. The site was a former pineapple field, is currently zoned Urban but is vacant. The owners of the site are Messrs. Munoz and Tokunaga for TMK: 2-3-08:por. 5. This site has been increased to 9 acres to provide a minimum of 8 usable acres based on the 12% slope.
CHAPTER 3
DATA FOR ALTERNATIVE SITES

STATE LAND USE

The State Land Use District Map covering the school service area is shown in Figure 4. This figure is comprised of Maui quadrangle maps M-7, 8, 10 and 11. The district symbols used on State Land Use District Maps are as follows:

C - Conservation District
A - Agriculture District
R - Rural District
U - Urban District

LAND CLASSIFICATION

A. Urban Land Classification

The urban land classification for the school service area is shown in Figure 19 - Urban Land Category and Figure 20 - Land Category Table. This data was extracted from the University of Hawaii's Land Study Bureau Circular No. 16 - "Maui Lands Classified by Physical Qualities for Urban Usage", published in June 1970.

B. Agricultural Land Classification

The agricultural land classification for the school service area is shown in Figure 21 - Agricultural Land Classification and Figure 22 - Agricultural Classification Symbols. This data was extracted from the University of Hawaii's Land Study Bureau Bulletin No. 7 - "Detailed Land Classification - Island of Maui" published in May 1967.

COUNTY GENERAL PLAN

Maui County has prepared a general plan for Pukalani and a general plan for the Makawao-Pukalani-Kula area. The Pukalani General Plan is shown in Figure 23 and the Makawao-Pukalani-Kula General Plan is shown in Figure 24.

TRAFFIC

The major roadways passing through the school service area are Halekala Highway, Kula Highway, and Makawao Avenue. A major by-pass route for Halekala Highway through Pukalani is currently being planned by the State Highways Division. Figure 25 provides the projected 1995 traffic volume for the major roadways, including the proposed by-pass for Haleakala Highway.
UTILITIES

A. Water

The existing and proposed water system for the Makawao-Pukalani-Kula area is shown in Figure 26. This figure was extracted from the December 31, 1974 "Makawao-Pukalani-Kula General Plan Report" prepared by Donald Wolbrink & Associates, Inc. for Maui County.

The area has been plagued with water problems because of an unreliable source and inadequate distribution system. Although major water system improvements are proposed by the County, the development of the new intermediate school site must be coordinated to ensure an adequate water supply to the site.

B. Sewer

There is no existing sewerage system in the Makawao-Pukalani-Kula area. A future sewerage system is proposed for the Makawao-Pukalani area. However, this system is not anticipated in the near future based on its high cost and low priority. The Kula area has no sewerage system planned. The Department of Health anticipates no problems from the continued use of cesspools.

C. Electricity and Telephone

Electrical and telephone services are available near all the alternative sites except Alternative Site J. This site will require an extension of the existing system.

RAINFALL

The median annual rainfall for the Makawao-Pukalani-Kula vicinity is shown in Figure 27. This figure was extracted from the December 31, 1974 "Makawao-Pukalani-Kula General Plan Report" prepared by Donald Wolbrink & Associates, Inc. for Maui County. The map shows that the rainfall for the area ranges from 15 inches to 100 inches. The alternative sites which have more than 40 inches of rainfall will qualify for covered walkways and a covered playcourt.
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<thead>
<tr>
<th>LAND CATEGORY CODE</th>
<th>SOIL CHARACTER</th>
<th>SYMBOL</th>
<th>DEPTH TO CONSOLIDATED MATERIAL</th>
<th>SLOPE CATEGORIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Nonconsolidated soil, nonrocky, surface well-drained</td>
<td>Soil Character</td>
<td>1 0 - 5 feet</td>
<td>Smooth</td>
</tr>
<tr>
<td>II</td>
<td>Nonconsolidated soil, rocky, surface well-drained</td>
<td>Depth to</td>
<td>2 6 - 10 feet</td>
<td>0 - 10 per cent</td>
</tr>
<tr>
<td>III</td>
<td>Expanding soil, nonrocky, surface well-drained</td>
<td>Consolidated</td>
<td>3 11 - 15 feet</td>
<td>11 - 20 per cent</td>
</tr>
<tr>
<td>IV</td>
<td>Expanding soil, rocky, surface well-drained</td>
<td>Lava</td>
<td>4 15+ feet</td>
<td>21 - 30 per cent</td>
</tr>
<tr>
<td>V</td>
<td>Harsh soil, rocky, surface poorly-drained</td>
<td>Underlying</td>
<td></td>
<td>30+ per cent</td>
</tr>
<tr>
<td>VI</td>
<td>Coral sand, nonrocky, surface well-drained</td>
<td>Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VII</td>
<td>AE lava, rocky, surface well-drained</td>
<td>Urban Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X</td>
<td>Pahoehoe lava, rocky, surface well-drained</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>Soil behaving like gels (chietropic), nonrocky, high</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>moisture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDERLYING MATERIAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Consolidated Coral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L</td>
<td>Consolidated Lava</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>High Water Table</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Soil Character Code**

<table>
<thead>
<tr>
<th>Description</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>VI</th>
<th>VII</th>
<th>VIII</th>
<th>IX</th>
<th>X</th>
<th>XI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight expansion and</td>
<td>nonexpanding</td>
<td>nonexpanding</td>
<td>expansive</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
</tr>
<tr>
<td>contraction on wetting and</td>
<td>Soil</td>
<td>Monoblock</td>
<td>Rocky</td>
<td>Surficial</td>
<td>Surface</td>
<td>Well-drained</td>
<td>Surface</td>
<td>Well-drained</td>
<td>Surface</td>
<td>Well-drained</td>
<td>Surface</td>
</tr>
<tr>
<td>drying.</td>
<td>nonexpanding</td>
<td>nonexpanding</td>
<td>expansive</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
<td>sandy</td>
</tr>
<tr>
<td>Well-drained surface and</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>subsoil, generally</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>suitable for crops.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good bearing capacity,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suitable for one-to-two</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>story structures with minor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>foundation work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land fill suitable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical cuts usually</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stable.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**General Characteristics**

1. Considerable expansion and contraction on wetting and drying. Cracks as wide as five inches may develop on drying causing shifting and settling. Color on the surface is usually dark gray to black. Sometimes referred to as "cape." Soil puddles easily, hence surface drainage depends almost entirely on slope.
2. Internal permeability slow, canows possible but questionable.
3. Bearing capacity poor. Poorly suited for any structure, although small localized areas possibly have one-story wooden structures.
4. Soils are usually of the expanding type and it drained, will retain these properties. Organic content is usually high and will subside on drying.
5. Adjacent to the ocean, salt in the soil will affect underground utilities.
6. Depth to consolidated material generally 15 feet or more.
7. Surface drainage good, internal permeability good although the ground water may be relatively close to the surface. Depth to ground water will determine the possibility of canows; the greater the depth, the more feasible it is for canows.
8. Bearing capacity poor. Poorly suited for any structure, although small localized areas possibly have one-story wooden structures.
9. Soils are usually of the expanding type and it drained, will retain these properties. Organic content is usually high and will subside on drying.
10. Ground water at or near the surface. Poorly suited for crops. Usually dry to close to sea level, hence land fill and/or forced drainage is probably necessary for any extensive development programs.

**Consolidation and Rocking**

1. Consolidated, relatively smooth surface, large pavement-like slab of rock with virtually no soil material.
2. No expansion or contraction on wetting and drying.
3. Well-drained in areas having moderate to low rainfall. Can have shallow standing water in areas of high rainfall because pervious-like surface restricts downward percolation of water. Cracking of surface rock may allow water to drain if subsurface rocks are porous.
4. Excellent bearing characteristics. Generally suitable for multi-story structures with minor foundation work.
5. Land filling suitable with little or no compaction.
7. Subsoil not suitable for multi-story structures with minor foundation work.
8. Lava tubes (subsurface voids) possible but not likely unless the as lava flow is underlain by pahoehoe flow at shallow depths.
9. Ground surface usually complex with abrupt ups and downs.
10. Cliffs can be readily cut and removed to form roads, platforms, etc.
11. The ground surface is usually very rough; construction on wetting and drying.

**Underlying Material Code**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Consolidated Coral</th>
<th>Consolidated Lava</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often vesicular and cavernous, thus allowing internal pore spaces possible.</td>
<td>Often vesicular and cavernous, thus allowing internal pore spaces possible.</td>
<td></td>
</tr>
<tr>
<td>More easily fractured than lava. Usually does not require blasting.</td>
<td>More easily fractured than lava. Usually does not require blasting.</td>
<td></td>
</tr>
<tr>
<td>Thickness depends on the various past stands of the area the coral may overlie unconsolidated (soft) material.</td>
<td>Thickness depends on the various past stands of the area the coral may overlie unconsolidated (soft) material.</td>
<td></td>
</tr>
<tr>
<td>Bearing characteristics good, if thick.</td>
<td>Bearing characteristics good, if thick.</td>
<td></td>
</tr>
</tbody>
</table>

**Underlying Material Code**

<table>
<thead>
<tr>
<th>Material</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coral</td>
<td>Consistent with coral.</td>
</tr>
<tr>
<td>Lava</td>
<td>Consistent with lava.</td>
</tr>
</tbody>
</table>

**Depth Code**

<table>
<thead>
<tr>
<th>Depth</th>
<th>Material (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>Below 1 foot</td>
</tr>
<tr>
<td>3-9</td>
<td>1-9 feet</td>
</tr>
<tr>
<td>10-15</td>
<td>10-15 feet</td>
</tr>
<tr>
<td>Over 15</td>
<td>Over 15 feet</td>
</tr>
</tbody>
</table>

**Imprint of Accounting & General Services**

**Benefit Division of Public Works**

**Planning Branch**

**State of Hawaii**

**Land Category Table**

**Figure 20**

**Designation by a three-symbol code.** The first symbol, a Roman numeral, denotes the soil character; the second symbol, an Arabic number, denotes the type of underlying material; and the third symbol, a capital letter, denotes the type of underlying material.

**Describes a condition where rocks hinder earth movement but do not constitute use of high explosives. It is characterized by the size and relative quantity of rocks, although it is recognized that there is an effect of cutting and filling, as well as bearing characteristics.**
<table>
<thead>
<tr>
<th>Land Type</th>
<th>Overall Rating</th>
<th>Pineapple</th>
<th>Vegetable Sugar</th>
<th>Orchard Grazing Forkage</th>
<th>Timber</th>
<th>Machine Tillability</th>
<th>Stonec</th>
<th>Depth (inches)</th>
<th>Slope (percent)</th>
<th>Texture</th>
<th>Drainage</th>
<th>Mean Annual Rainfall (inches)</th>
<th>Elevation feet</th>
<th>Color</th>
<th>Soil Series</th>
<th>Major Uses</th>
<th>Distinct</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 C</td>
<td></td>
<td>c</td>
<td>a</td>
<td>b</td>
<td>c</td>
<td>Well suited</td>
<td>Nonstone Deep, over 30</td>
<td>0 to 10, predominately 5</td>
<td>Fine</td>
<td>Well-drained</td>
<td>30 to 45</td>
<td>100 to 200</td>
<td>Dark reddish brown, Kahana, Halimaile</td>
<td>Pineapple, sugar cane</td>
<td>Lahaina, Makawao</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 A</td>
<td></td>
<td>c</td>
<td>a</td>
<td>d</td>
<td>b</td>
<td>Poorly suited</td>
<td>Stony Deep, over 30</td>
<td>0 to 20, including underlying terrain, predominately 13</td>
<td>Medium</td>
<td>Well-drained</td>
<td>25 to 30</td>
<td>100 to 150</td>
<td>Dark reddish brown, Kula, Pana, To</td>
<td>Pineapple, sugar cane</td>
<td>Lahaina, Makawao</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 D</td>
<td></td>
<td>d</td>
<td>c</td>
<td>e</td>
<td>b</td>
<td>Well suited</td>
<td>Nonstone Deep, over 30</td>
<td>0 to 10, predominately 5</td>
<td>Fine</td>
<td>Well-drained</td>
<td>50 to 90</td>
<td>300 to 500</td>
<td>Dark reddish brown, Makawao, Honolulu</td>
<td>Pineapple, sugar cane</td>
<td>Lahaina, Makawao</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41 E</td>
<td></td>
<td>c</td>
<td>c</td>
<td>a</td>
<td>d</td>
<td>Moderately suited</td>
<td>Nonstone Deep, over 30</td>
<td>0 to 20, with inclinations of deeper slopes, predominately 12</td>
<td>Fine</td>
<td>Well-drained</td>
<td>50 to 90</td>
<td>300 to 500</td>
<td>Dark reddish brown, Honolulu</td>
<td>Pineapple, sugar cane</td>
<td>Lahaina, Makawao</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Vegetables**
- **Class a:** Tomatoes over 22,000 pounds per acre per crop; Carrots over 11,000 pounds per acre per crop; Irish potatoes over 10,000 pounds per acre per crop.
- **Class b:** Tomatoes 20,000-25,000 pounds per acre per crop; Carrots 9,500-11,000 pounds per acre per crop; Irish potatoes 6,000-10,000 pounds per acre per crop.
- **Class c:** Tomatoes 15,000-20,000 pounds per acre per crop; Carrots 5,000-9,000 pounds per acre per crop; Irish potatoes 4,000-6,000 pounds per acre per crop.
- **Class d:** Tomatoes 10,000-9,000 pounds per acre per crop; Carrots 4,000-5,000 pounds per acre per crop; Irish potatoes 2,000-4,000 pounds per acre per crop; Dry beans less than 10,000 pounds per acre per crop.

**Pineapples**
- **Class a:** 11 tons or more fruit per acre per year; (based on a 4-year crop cycle of plant and ratoon crops)
- **Class b:** 12-14 tons per acre per year
- **Class c:** 10-12 tons per acre per year
- **Class d:** 8-10 tons per acre per year
- **Class e:** Less than 8 tons per acre per year

**Sugar Cane, Irrigated Status**
- **Class a:** 0.5-1.3 tons or more sugar per acre per month
- **Class b:** 0.4-0.5 tons sugar per acre per month
- **Class c:** 0.3-0.4 tons sugar per acre per month
- **Class d:** 0.2-0.3 tons sugar per acre per month
- **Class e:** Less than 0.2 tons per acre per month

**Forage ( Alfalfa)**
- **Class a:** Over 5 tons hay per acre per year
- **Class b:** 4-5 tons hay per acre per year
- **Class c:** 3-4 tons hay per acre per year
- **Class d:** 2-3 tons hay per acre per year
- **Class e:** Less than 2 tons hay per acre per year

**Forestry**
- **Co** Commercial forest lands, land which is producing, or is capable of producing, usable crops of woods for industrial purposes. Industrial products include sawlogs and pulpwood, but not fuelwood.

**NCG** Non-commercial forest lands, land which is incapable of yielding usable crops of industrial wood because of adverse site conditions.

**SOURCE:**
DETAILED LAND CLASSIFICATION
ISLAND OR MAUI
L S.B. BULLETIN NO. 7
MAY 1957

**AGRICULTURAL CLASSIFICATIONS**

**DEPT. OF ACCOUNTING & GENERAL SERVICES**
DIVISION OF PUBLIC WORKS
PLANNING BRANCH
STATE OF HAWAII

![Figure 22](image-url)
PROPOSED GENERAL PLAN MAP
Land Use And Public Facilities

FIGURE 24  MAKAWAO-PUKALANI-KULA GENERAL PLAN
STATE OF HAWAI'I
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECTED BY THE
HIGHWAY PLANNING BRANCH
A DIVISION OF PUBLIC WORKS
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

September 1972
Ref. No. TA 72-23

FIGURE 25 TRAFFIC ASSIGNMENT

STATE OF HAWAI'I
DEPT. OF ACCOUNTING & GENERAL SERVICES
DIVISION OF PUBLIC WORKS
PLANNING BRANCH
MEDIAN ANNUAL RAINFALL

FIGURE 27

RAINFALL

STATE OF HAWAI'I

DEPT. OF ACCOUNTING & GENERAL SERVICES

DIVISION OF PUBLIC WORKS

PLANNING BRANCH

-31-
CHAPTER 4
EVALUATION OF ALTERNATIVE SITES

GENERAL

The alternative sites selected in Chapter 2 were evaluated against the site evaluation criteria contained in Appendix A which consists of: (1) the minimum site criteria, (2) the school site criteria, and (3) community site criteria.

MINIMUM SITE CRITERIA

The evaluation of alternative sites against the minimum site criteria is shown in Table 2. This evaluation shows that all of the sites meet the minimum criteria and are therefore viable sites.

SCHOOL SITE CRITERIA

The alternative sites were evaluated against the school site criteria as shown in Table 3.

COMMUNITY SITE CRITERIA

The alternative sites were evaluated against the community site criteria as shown in Table 4.

TABLE 2
MINIMUM SITE CRITERIA EVALUATION

<table>
<thead>
<tr>
<th>Minimum Criteria</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (Acre)</td>
<td>8</td>
<td>6½/</td>
<td>9½/</td>
<td>6½/</td>
<td>8</td>
<td>8</td>
<td>9½/</td>
<td>8</td>
<td>8</td>
<td>9½/</td>
</tr>
<tr>
<td>Shape (2:5:1)</td>
<td>1.3:1</td>
<td>1.5:1</td>
<td>2.5:1</td>
<td>1.7:1</td>
<td>2.5:1</td>
<td>1:1</td>
<td>1.8:1</td>
<td>1:1</td>
<td>1.4:1</td>
<td>1:1</td>
</tr>
<tr>
<td>Tsunami (Hazard)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Flood (Hazard)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Landslide (Potential)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Traffic (Hazard)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Timing (1983-1985)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Location (Service Area)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Displacement (10 or more)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Preservation (Destruction)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Conservation (Within)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

*/ Reduced to 6½ acres minimum for school-park complex.
*/ Existing Kula School site available for use.
*/ Site increased to accommodate 12% slope.
TABLE 3

SCHOOL SITE CRITERIA EVALUATION

<table>
<thead>
<tr>
<th>SITE CHARACTERISTICS</th>
<th>ROADWAY AND UTILITIES</th>
<th>ACCESSIBILITY</th>
<th>ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Size</strong></td>
<td><strong>B. Roadway</strong></td>
<td><strong>C. Pedestrian</strong></td>
<td><strong>A. Highway Miles</strong></td>
</tr>
<tr>
<td>Site</td>
<td>Site</td>
<td>Site</td>
<td>Site</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
<td>A</td>
<td>A. Highway Miles</td>
</tr>
<tr>
<td>B</td>
<td>B</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>C</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>D</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>E</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>G</td>
<td>G</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>H</td>
<td>H</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>I</td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>J</td>
<td>J</td>
<td></td>
</tr>
</tbody>
</table>

**SITE CHARACTERISTICS**
- **Soil:** Refer to Site Cesspool
- **Former pineapple field:** (Figure J)

**ROADWAY AND UTILITIES**
- **Existing 8-inch:** (Figure B)

**ACCESSIBILITY**
- **Existing 6-inch:** (Figure E)

**ENVIRONMENT**
- **Pineapple field:** (Figure I)

---

**SITE CHARACTERISTICS**
- **Soil:** Refer to Site Cesspool
- **Former pineapple field:** (Figure J)

**ROADWAY AND UTILITIES**
- **Existing 8-inch:** (Figure B)

**ACCESSIBILITY**
- **Existing 6-inch:** (Figure E)

**ENVIRONMENT**
- **Pineapple field:** (Figure I)

---

**SITE CHARACTERISTICS**
- **Soil:** Refer to Site Cesspool
- **Former pineapple field:** (Figure J)

**ROADWAY AND UTILITIES**
- **Existing 8-inch:** (Figure B)

**ACCESSIBILITY**
- **Existing 6-inch:** (Figure E)

**ENVIRONMENT**
- **Pineapple field:** (Figure I)
## TABLE 4

### COMMUNITY SITE CRITERIA EVALUATION

#### A. State Land Use: Refer to Figure 4, Alternative Sites.

<table>
<thead>
<tr>
<th>Site</th>
<th>Designation</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Urban</td>
<td>G</td>
</tr>
<tr>
<td>B</td>
<td>Urban/Rural</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>D</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>E</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>F</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>G</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>H</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>I</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>J</td>
<td>Urban</td>
<td>G</td>
</tr>
</tbody>
</table>

#### B. County General Plan: Refer to Figures 23 and 24.

<table>
<thead>
<tr>
<th>Site</th>
<th>Designation</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Country Town</td>
<td>F</td>
</tr>
<tr>
<td>B</td>
<td>Public Use</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>School</td>
<td>G</td>
</tr>
<tr>
<td>D</td>
<td>School</td>
<td>G</td>
</tr>
<tr>
<td>E</td>
<td>County Town</td>
<td>F</td>
</tr>
<tr>
<td>F</td>
<td>County Town</td>
<td>F</td>
</tr>
<tr>
<td>G</td>
<td>Agriculture</td>
<td>P</td>
</tr>
<tr>
<td>H</td>
<td>Country Town</td>
<td>F</td>
</tr>
<tr>
<td>I</td>
<td>County Town</td>
<td>F</td>
</tr>
<tr>
<td>J</td>
<td>Country Town</td>
<td>F</td>
</tr>
</tbody>
</table>

#### C. County Zoning:

<table>
<thead>
<tr>
<th>Site</th>
<th>Zoning</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>County Interim</td>
<td>F</td>
</tr>
<tr>
<td>B</td>
<td>Residential</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>County Interim</td>
<td>F</td>
</tr>
<tr>
<td>D</td>
<td>County Interim</td>
<td>F</td>
</tr>
<tr>
<td>E</td>
<td>County Interim</td>
<td>F</td>
</tr>
<tr>
<td>F</td>
<td>County Interim</td>
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<tr>
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<td>G</td>
</tr>
<tr>
<td>I</td>
<td>Residential</td>
<td>G</td>
</tr>
</tbody>
</table>

#### D. Existing Use:

<table>
<thead>
<tr>
<th>Site</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Residences</td>
<td>P</td>
</tr>
<tr>
<td>B</td>
<td>Vacant</td>
<td>G</td>
</tr>
<tr>
<td>C</td>
<td>School</td>
<td>G</td>
</tr>
<tr>
<td>D</td>
<td>Vacant</td>
<td>G</td>
</tr>
<tr>
<td>E</td>
<td>Vacant</td>
<td>G</td>
</tr>
<tr>
<td>F</td>
<td>Vacant</td>
<td>G</td>
</tr>
<tr>
<td>G</td>
<td>Agriculture</td>
<td>F</td>
</tr>
<tr>
<td>H</td>
<td>Agriculture</td>
<td>F</td>
</tr>
<tr>
<td>I</td>
<td>Vacant</td>
<td>G</td>
</tr>
</tbody>
</table>

#### E. Traffic: Refer to Figure 25, Traffic Assignment.

<table>
<thead>
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<th>Site</th>
<th>Traffic</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>B</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>C</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>D</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>E</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>F</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>G</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>H</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
<tr>
<td>I</td>
<td>Less than 60%</td>
<td>P</td>
</tr>
</tbody>
</table>

#### F. Land Owners:

<table>
<thead>
<tr>
<th>Site</th>
<th>Owner</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3 - Individuals</td>
<td>G</td>
</tr>
<tr>
<td>B</td>
<td>2 - Individuals</td>
<td>F</td>
</tr>
<tr>
<td>C</td>
<td>2 - Individuals</td>
<td>F</td>
</tr>
<tr>
<td>D</td>
<td>1 - Corporation</td>
<td>F</td>
</tr>
<tr>
<td>E</td>
<td>7 - Individuals</td>
<td>P</td>
</tr>
<tr>
<td>F</td>
<td>2 - individuals</td>
<td>F</td>
</tr>
</tbody>
</table>

#### G. Natural Beauty:

<table>
<thead>
<tr>
<th>Site</th>
<th>Aesthetics</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>B</td>
<td>Little vista</td>
<td>F</td>
</tr>
<tr>
<td>C</td>
<td>Little vista</td>
<td>F</td>
</tr>
<tr>
<td>D</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>E</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>F</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>G</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>H</td>
<td>None</td>
<td>G</td>
</tr>
<tr>
<td>I</td>
<td>None</td>
<td>G</td>
</tr>
</tbody>
</table>

#### H. Location: Within 0.75 Miles

<table>
<thead>
<tr>
<th>Site</th>
<th>Within 0.75 Miles</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>B</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>C</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>D</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>E</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>F</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>G</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>H</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>I</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
<tr>
<td>J</td>
<td>Less than 50%</td>
<td>P</td>
</tr>
</tbody>
</table>

#### B. Interference with Institutions: There are no public or private institutions within 0.5 miles of the alternative sites.

#### C. Agriculture: Refer to Figures 21 and 22 for Agricultural Land Classification Map and Symbols.

<table>
<thead>
<tr>
<th>Site</th>
<th>Classification</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>C49</td>
<td>P</td>
</tr>
<tr>
<td>B</td>
<td>C21</td>
<td>P</td>
</tr>
<tr>
<td>C</td>
<td>D4</td>
<td>P</td>
</tr>
<tr>
<td>D</td>
<td>C09</td>
<td>P</td>
</tr>
<tr>
<td>E</td>
<td>C49</td>
<td>F</td>
</tr>
<tr>
<td>F</td>
<td>C49</td>
<td>F</td>
</tr>
<tr>
<td>G</td>
<td>C50</td>
<td>P</td>
</tr>
<tr>
<td>H</td>
<td>C21</td>
<td>P</td>
</tr>
<tr>
<td>I</td>
<td>C21</td>
<td>P</td>
</tr>
<tr>
<td>J</td>
<td>B37</td>
<td>P</td>
</tr>
</tbody>
</table>
COST CONSIDERATION

A major consideration in any site selection study is the relative costs associated with land acquisition, site development, and bus subsidy of each alternative site. These cost factors are evaluated independently from the school and community site criteria. This is because the school and community criteria include general cost factors. For example, a particular site may have been rated "poor" based on lack of water service. However, the inclusion of a new waterline to the site does not result in a corresponding improvement to the original "poor" site rating.

The estimated costs for the development of each alternative site has been computed in Appendix B and are summarized in Table 5.

<table>
<thead>
<tr>
<th>Site</th>
<th>Land Acq.</th>
<th>On-Site Development</th>
<th>Off-Site Development</th>
<th>Bussing Subsidy</th>
<th>Total Cost ($1,000)</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>305</td>
<td>187.2</td>
<td>710.6</td>
<td>740.4</td>
<td>2023.2</td>
</tr>
<tr>
<td>B</td>
<td>240.5</td>
<td>206.1</td>
<td>479.6</td>
<td>846.9</td>
<td>1323.1</td>
</tr>
<tr>
<td>C</td>
<td>225</td>
<td>354.4</td>
<td>260</td>
<td>1046.5</td>
<td>2085.9</td>
</tr>
<tr>
<td>D</td>
<td>136</td>
<td>195.6</td>
<td>1059.8</td>
<td>791.8</td>
<td>2183.2</td>
</tr>
<tr>
<td>E</td>
<td>166</td>
<td>170.8</td>
<td>1050.1</td>
<td>791.8</td>
<td>1328</td>
</tr>
<tr>
<td>F</td>
<td>166</td>
<td>158.4</td>
<td>811.1</td>
<td>1270.9</td>
<td>2128</td>
</tr>
<tr>
<td>G</td>
<td>186</td>
<td>369</td>
<td>280</td>
<td>911.6</td>
<td>1785.2</td>
</tr>
<tr>
<td>H</td>
<td>171</td>
<td>187.2</td>
<td>495</td>
<td>911.6</td>
<td>1764.8</td>
</tr>
<tr>
<td>I</td>
<td>171</td>
<td>187.2</td>
<td>545</td>
<td>911.6</td>
<td>1814.8</td>
</tr>
<tr>
<td>J</td>
<td>365.5</td>
<td>575.8</td>
<td>739.8</td>
<td>920.2</td>
<td>2601.3</td>
</tr>
</tbody>
</table>

ANALYSIS

The evaluation results and the cost considerations are summarized for all of the alternative sites in Table 6. In terms of School Site Criteria, alternative Site B has the best overall rating and is followed closely by Sites F and H. Alternative Site B also has the best rating in terms of Community Site Criteria followed by Sites J, C, and D.

The Cost Considerations for the alternative sites show that Alternative Site F has the least comparative cost followed closely by Site B and Site E.

Based on the evaluation criteria and the cost considerations, it appears that Sites B and F have the best potential for selection as the school site. However, since the review comments show a Makawao community preference for Site D, it is necessary to include this site with Sites B and F for a closer examination. The following comparison of the differences among Sites B, D, and F is provided in Table 7.
### TABLE 7
COMPARISON OF ORIGINAL RATING DIFFERENCES

<table>
<thead>
<tr>
<th>SCHOOL SITE CRITERIA</th>
<th>B</th>
<th>D</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>G</td>
<td>G</td>
<td>F</td>
</tr>
<tr>
<td>Shape</td>
<td>G</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>Contours</td>
<td>F</td>
<td>G</td>
<td>P</td>
</tr>
<tr>
<td>Roadway</td>
<td>P</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Water</td>
<td>G</td>
<td>F</td>
<td>G</td>
</tr>
<tr>
<td>Drainage</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>F</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Automobile</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Traffic Safety</td>
<td>F</td>
<td>P</td>
<td>F</td>
</tr>
<tr>
<td>Rainfall</td>
<td>G</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Industrial &amp; Agricultural Nuisances</td>
<td>G</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Attractive Nuisances</td>
<td>P</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>G (Good)</strong></td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>F (Fair)</strong></td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td><strong>P (Poor)</strong></td>
<td>2</td>
<td>6</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>COMMUNITY SITE CRITERIA</th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>State Land Use</td>
<td>G</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>County General Plan</td>
<td>G</td>
<td>G</td>
<td>F</td>
</tr>
<tr>
<td>County Zoning</td>
<td>G</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Traffic</td>
<td>G</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Land Owner</td>
<td>G</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Natural Beauty</td>
<td>F</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td><strong>G (Good)</strong></td>
<td>5</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>F (Fair)</strong></td>
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<td>2</td>
<td>3</td>
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<tr>
<td><strong>P (Poor)</strong></td>
<td>0</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

If these three sites were purchased and developed based on the comparative cost items in Appendix B, the differences between the three sites would be reduced to the evaluation items shown in Table 8.
<table>
<thead>
<tr>
<th>SCHOOL SITE CRITERIA</th>
<th>SITE</th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>G</td>
<td>G</td>
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<td></td>
</tr>
<tr>
<td>Shape</td>
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<td>P</td>
</tr>
<tr>
<td>Contours</td>
<td>F</td>
<td>G</td>
<td>F</td>
<td>P</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>F</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Rainfall</td>
<td>G</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Industrial &amp; Agricultural Nuisances</td>
<td>G</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Attractive Nuisances</td>
<td>P</td>
<td>G</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>G (Good)</th>
<th>F (Fair)</th>
<th>P (Poor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>F</td>
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<table>
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<th>SITE</th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>State Land Use</td>
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<td>P</td>
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<tr>
<td>County General Plan</td>
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<td>G</td>
<td>F</td>
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<tr>
<td>County Zoning</td>
<td>G</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Traffic</td>
<td>G</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
<tr>
<td>Land Owner</td>
<td>G</td>
<td>F</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>Natural Beauty</td>
<td>F</td>
<td>G</td>
<td>G</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>G (Good)</th>
<th>F (Fair)</th>
<th>P (Poor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>P</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

The preceding summary shows that Alternative Site B has the best rating in terms of both School Site Criteria and Community Site Criteria. Site B will cost approximately $42,000 more than Site F and $870,000 less than Site D based on the following costs:

<table>
<thead>
<tr>
<th>Site</th>
<th>Cost</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site F</td>
<td>$1,270,900</td>
<td>$42,000</td>
</tr>
<tr>
<td>Site B</td>
<td>$1,313,100</td>
<td></td>
</tr>
<tr>
<td>Site D</td>
<td>$2,183,200</td>
<td>-$870,100</td>
</tr>
</tbody>
</table>
The following summary of pertinent review comments from various governmental agencies, community organizations and individuals is provided:

1. U.S.D.A. Soil Conservation Service - Concerned about use of prime agricultural lands for other than agricultural uses. Recommends that either Sites A, B, or J be selected based on their existing Urban zoning.

2. U.S. Army Corps of Engineers - Pointed out potential overland flood flows through Site E.

3. State Department of Planning and Economic Development - Suggests that community support for Site D be evaluated.

4. State Department of Education - Stated that Maui District favors Site D and requested further study on the improvements required for Site D. Maui County has confirmed the need for roadway improvements to Site D.

5. State Department of Agriculture - Strongly opposes selection of a school site in Agricultural District and recommends Site B be selected because Pukalani can best contain urbanization.

6. State Department of Transportation - Expressed concern on traffic hazards for Sites C and J along Kula Highway. Also pedestrian safety concerns for Sites B, H and I until Haleakala Highway is realigned to bypass Pukalani.

7. University of Hawaii Environmental Center - Raised questions concerning evaluation criteria relevance and suggested that a larger school site which can accommodate a future high school site be considered. Also, provisions for community input should be included in the site selection process.

8. Maui County Mayor Cravalho - Supports Site D based on adjacent recreational facilities.

9. Maui County Planning Department - Supports Site D based on adjacent park and Makawao General Plan.

10. Maui County Parks Department - Supports school-park complex at either Makawao (Site D) or Pukalani (Site B).

11. Maui District School Advisory Council - Supports Site D.


13. Kula School P.T.A. - Some members do not want an intermediate school. The P.T.A. supports a high school
in lieu of an intermediate school and recommends that if an intermediate school is provided, adequate land be acquired for a future high school.

14. Individuals - Nineteen persons indicated their support for Site D based upon the adjacent recreational facilities.
APPENDIX A

SITE EVALUATION CRITERIA

GENERAL

Criteria for this school were established as ideal standards with which to evaluate each of the alternative sites. All prospective school sites, however, should meet certain minimum criteria as established by the Department of Education (DOE) and the Department of Accounting and General Services (DAGS). Sites not meeting the minimum criteria will be eliminated from further consideration unless they are shown on the County General Plan.

Only sites meeting the minimum site criteria and sites designated on the County General Plan will be evaluated against the school and community site criteria and have their comparative cost computed. The school and community site criteria ratings and the comparative cost analysis will form the basis for recommending the alternative school site to be selected.

MINIMUM SITE CRITERIA

A. Size: The site must contain enough usable land to meet the following DOE acreage requirements:

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Enrollment</th>
<th>Playfields</th>
<th>Buildings &amp; Open Space</th>
<th>Parking</th>
<th>Set Backs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elem.</td>
<td>400</td>
<td>3/4</td>
<td>1</td>
<td>1/4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Inter.</td>
<td>400</td>
<td>3/4</td>
<td>1/4</td>
<td>1/4</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>High</td>
<td>750</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Maximum</td>
<td>1000</td>
<td>3/4</td>
<td>2</td>
<td>1</td>
<td>1/4</td>
<td>8</td>
</tr>
<tr>
<td>Elem.</td>
<td>1200</td>
<td>5/6</td>
<td>3/4</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>High</td>
<td>2000</td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>30</td>
</tr>
</tbody>
</table>

Note 1 - Building and open space acreage assumes finger type construction, and one and two-story construction for elementary and intermediate schools, and one to three-story construction for high schools.

Note 2 - Totals assume all acreage is usable with slopes not to exceed 9 percent.

Note 3 - Acreage requirements for enrollment between Minimum and Maximum:

- Elementary - 1 acre per 300* students in excess of 400
- Intermediate - 1 acre per 250* students in excess of 400
- High - 1 acre per 150* students in excess of 750

Note 4 - If a school adjoins a county park, up to 50% of the playfield requirement may be satisfied by joint use agreement permitting DOE priority use of designated park facilities during school hours.

*for fraction thereof

A-1
B. **Shape:** The length to width ratio of the site must not exceed 2.5 to 1. Higher length-width ratios severely restrict the design flexibility of the complex and placement of facilities in their optimum arrangement.

c. **Tsunami:** The site must not be in a tsunami inundation zone as established by the Tsunami Research Center of the Hawaii Institute of Geophysics.

D. **Flood:** The site must not be in a major flood plain exposed to excessive storm water runoff if adequate drainage provisions, i.e. culverts, lined channels, etc., cannot be made at a reasonable cost.

E. **Landslide:** The site must not be located within a known or potential landslide area.

F. **Traffic:** The site must not be located in an area hazardous from the standpoint of pedestrian and traffic safety unless adequate safety provisions can be made.

G. **Timing:** The acquisition of the site must be possible early enough to allow enough construction time to meet DOE's scheduled school opening date.

H. **Location:** The site must be within the ultimate service area.

I. **Displacement:** The site must be obtained without the relocation of ten or more families.

J. **Preservation:** The development must be such that no historic, cultural, or scenic buildings or sites will be destroyed.

K. **Conservation:** The site must not be located in a State Land Use Conservation District.

**SCHOOL SITE CRITERIA**

**A. Site Characteristics**

1. **Size:**
   
   a. Good - The site is the minimum size because an adjacent park will be used to meet the school's playground requirements.
   
   b. Fair - The site is the requested size or larger.
   
   c. Poor - The site is between the minimum and requested size.
2. **Slope:**
   
a. Good - The average slope of the site is between 1 and 3%.

   b. Fair - The average slope of the site is between 4 and 10%.

   c. Poor - The average slope of the site is greater than 10%.

3. **Shape:** The shape should generally be rectangular.
   
a. Good - Length-width ratio 1.0:1.0 to 1.6:1.0.

   b. Fair - Length-width ratio 1.7:1.0 to 2.0:1.0.

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

4. **Foundation:** University of Hawaii Land Study Bureau Urban Land Classification Soil Character Code.
   
a. Good - Soil Character Codes I, II, VIII, and IX.

   b. Fair - Soil Character Codes, III, IV, VI, and VII.

   c. Poor - Soil Character Code V with depth to consolidated material of 15 feet or less.

5. **Soil:**
   
a. Good - The site is composed of non-rocky soil with a depth over 10 feet or coral or rocky soil with a depth over 15 feet.

   b. Fair - The site is composed of non-rocky soil with a 6 to 10-foot depth or coral or rocky soil with a depth of 11 to 15 feet.

   c. Poor - The site is composed of (1) non-rocky soil with a 0 to 5-foot depth or (2) coral or rocky soil with a depth less than 11 feet or (3) marshy soil or (4) lava.

6. **Contours:** Alignment for ventilation and sun glare.
   
a. Good - The alignment of the contours falls within 22.5° of the east-west direction or the slope is 3% or less.
b. Fair - The alignment of the contours falls within 22.5° of the north-south or northwest-southeast direction.

c. Poor - The alignment of the contours falls within 22.5° of the northeast-southwest direction.

7. Aesthetic Value:

a. Good - The site has some natural beauty in the form of trees, plants, brooks, rock formations, etc. which can be preserved and integrated into the school campus. The site is not crossed by overhead utility lines.

b. Fair - The site lacks most of the desirable natural beauty but still has the potential of becoming a beautiful campus through proper landscaping. The site is not crossed by overhead lines.

c. Poor - The site has no natural beauty whatsoever. The site is crossed by overhead lines.

B. Roadway and Utilities

1. Roadway:

a. Good - The site has adequate roadways to meet the ultimate school needs.

b. Fair - The site will have adequate roadways which will be developed or require some widening to serve the interim and ultimate needs of the school.

c. Poor - The site has no adequate roadways and will require the construction of a roadway system to specifically meet the school needs.

2. Water:

a. Good - The site has adequate water pressure and capacity available to meet the ultimate school needs.

b. Fair - The existing water service is insufficient but adequate service is being developed which will meet the interim and ultimate needs of the school.
c. Poor - The site has inadequate water service and will require the development or extension of a water system to specifically meet the school needs.

3. **Sewer:**
   a. Good - The site has adequate sewer lines available to meet the ultimate school needs.
   b. Fair - The site will have adequate sewer service which is being developed to serve the interim and ultimate needs of the school.
   c. Poor - The site has no sewer service and will require the construction of cesspools or a sewage treatment plant to meet the school needs.

4. **Drainage:**
   a. Good - The site has adequate drainage facilities available to meet the ultimate school needs.
   b. Fair - The site will have adequate drainage facilities which are being developed to serve the interim and ultimate needs of the school.
   c. Poor - The site has no drainage facility and may require the development of a drainage system to specifically meet the school needs.

5. **Power and Communications:**
   a. Good - The site has adequate existing power and communications available to meet the ultimate school needs.
   b. Fair - The site will have adequate power and communications which are being developed to serve the interim and ultimate needs of the school.
   c. Poor - The site has insufficient power or communications available and will require improvement on these services to serve the school needs.

C. **Accessibility**

1. **Pedestrian:**
   a. Good - The site has pedestrian access from three sides.
b. Fair - The site has pedestrian access from two sides.

c. Poor - The site has pedestrian access from only one side.

2. Automobile:

a. Good - The site has roadways along one short side and one long side.

b. Fair - The site has roadways along one long side or two short sides.

c. Poor - The site has a roadway only along one short side.

3. Bus Service:

a. Good - The site is served by a major bus line running through the service area.

b. Fair - A major bus line passes within reasonable (0.5 mile) distance of the site.

c. Poor - No bus service is available.

4. Traffic Safety:

a. Access to the site is off a major roadway passing through the service area.

b. Fair - Access to the site is via a through street capable of handling the heavy traffic at school opening and closing hours.

c. Poor - Access to the site is via a dead end roadway.

5. Pedestrian Safety:

a. Good - Adequate and safe walkways/shoulders to the site are available along the school access road.

b. Fair - Safe walkways/shoulders to the site will be provided along the school access road.

c. Poor - The site may require traffic signals and/or pedestrian overpasses in addition to walkway/shoulder improvements.
D. Environment

1. **Highway Noise:**

   Major Highway - A highway with posted speed limits of 35 mph or more.

   Freeway - A controlled access highway with posted speed limits of 45 mph or more.

   Truck Route - A roadway designated as such by the Department of Health.

   The measured distance to be used in the application of the Highway Noise Criteria shall be the distance from the center of the traffic lane closest to the alternative site to the building setback line of the site.

   a. Good - The site is more than 1,500 feet away from major highways, freeways and truck routes.

   b. Fair - The site is 500 feet to 1,500 feet away from major highways, freeways and truck routes to keep the motor vehicular noise level down to a level where normal conversation can be heard.

   c. Poor - The site is within 500 feet of a major highway, freeway or truck route.

2. **Aircraft Noise:**

   a. Good - The site is more than a mile away from the normal aircraft flight patterns into and out of airports and air bases.

   b. Fair - The site is far enough away (0.5 to 1 mile) from the normal flight patterns to keep the noise level down to a level where normal conversation can be heard.

   c. Poor - The site is directly under (0 to 0.5 mile) the approach and takeoff patterns.

3. **Rainfall:**

   a. Good - The site has a median annual rainfall less than 30".

   b. Fair - The site has a median annual rainfall between 30" to 39.9".

A-7
c. Poor - The site has a median annual rainfall greater than 40".

4. **Industrial and Agricultural Nuisances:**
   a. Good - The site is free from noise, dust, odors, smoke, and other nuisances created by industrial or agricultural activities.
   b. Fair - The noise, dust, odors, smoke, etc. nuisances from industrial or agricultural activities are at worst periodic but well within the limits of human toleration.
   c. Poor - The above mentioned nuisances cause considerable discomfort and hamper school activities.

5. **Attractive Nuisances:**
   a. Good - The site is more than a half mile from those commercial enterprises (bowling alleys, pool halls, stores, etc.) that may attract students during school hours.
   b. Fair - The site is reasonably far (0.25 to 0.5 mile) from distracting commercial centers.
   c. Poor - The site is within a quarter mile of undesirable commercial enterprises.

**COMMUNITY SITE CRITERIA**

**A. Government**

1. **State Land Use District Map:**
   a. Good - The site is within an Urban District.
   b. Fair - The site is within a Rural District.
   c. Poor - The site is in an Agricultural or Conservation District.

2. **County General Plan:**
   a. Good - The site is designated for school or institutional use.
   b. Fair - The site is designated for residential, apartment, or park use.
   c. Poor - The site is designated for commercial, hotel, industrial, agricultural, or open space use.
3. **County Zoning:**
   
a. Good - The site is zoned residential.

b. Fair - The site is zoned agricultural.

c. Poor - The site is zoned hotel, business, industrial, apartment or preservation.

B. **Community Effects**

1. **Displacement:**
   
a. Good - The site may be acquired without relocating any family, farm, or business.

b. Fair - The site may be acquired without relocating any farm or business or more than five families and living units.

c. Poor - The site cannot be acquired without the relocation of farms, businesses, or more than five families.

2. **Interference with Institutions:**
   
a. Good - The site is greater than 0.5 mile from hospitals, rest homes, and any other institution which may be disturbed by large groups of students.

b. Fair - The site is far enough away (0.25 to 0.5 mile) from any hospital, rest home, etc. so that any disturbance to the institution by the activities of the school will be minimal.

c. Poor - The site is adjacent to a hospital, rest home, or similar institution which may be disturbed by the activities of the school.

3. **Agriculture:** University of Hawaii Land Study Bureau Agricultural Land Classification Productivity Rating.
   
a. Good - The site is located on land with very poor (E) productivity rating.

b. Fair - The site is located on land with fair (C) to poor (D) productivity rating.

c. Poor - The site is located on land with very good (A) to good (B) productivity rating.
4. **Existing Use:** In changing the existing use of the site to school use, there should be a minimum amount of disruption to the existing pattern of living of the community.

   a. **Good** - The site is vacant and unused.
   
   b. **Fair** - The site is being used for government agencies or institutions.
   
   c. **Poor** - The site is being used for agriculture, residences or private businesses.

5. **Traffic:**

   a. **Good** - The site is located such that 80% of the morning work-bound traffic from the service area coincides with the school-bound traffic.
   
   b. **Fair** - The site is located such that 70% of the morning work-bound traffic from the service area coincides with the school-bound traffic.
   
   c. **Poor** - The site is located such that less than 60% of the morning work-bound traffic from the service area coincides with the school-bound traffic.

6. **Land Owners:**

   a. **Good** - The site is entirely owned by the Federal, State, or County government.
   
   b. **Fair** - The site is owned by less than three individuals or business corporations.
   
   c. **Poor** - The site is owned by more than two individuals or business corporations.

7. **Natural Beauty:**

   a. **Good** - The site is not an aesthetic asset to the community and will not interfere with scenic vistas when it is developed into a school.
   
   b. **Fair** - The site has little aesthetic value to the community or may partially obstruct scenic vistas when it is developed into a school.
c. Poor - The site is an aesthetic asset to the community or will obstruct scenic vistas when it is developed into a school.

8. Location:
   a. Good - The site is within reasonable walking distance (0.75 mile) of 75% of the students.
   b. Fair - The site is within reasonable walking distance of 50% of the students.
   c. Poor - The site is within reasonable walking distance of less than 50% of the students.

COST CONSIDERATIONS

A major consideration in any site evaluation study is the relative costs associated with the land acquisition, site development, and bus subsidy of each alternative site.

A. Land Acquisition
   The following items are included in the land acquisition costs:

   1. Land Acquisition: The estimated fair market value of the building, land, and easements is used. This is obtained by using the Tax Office appraised value of the building and land together with an analysis of recent sales in the area. Consultant and staff costs are included since they vary with the number of parcels to be acquired.

   Although State land would seemingly have no land acquisition cost per se, there is a cost to the State in terms of the alternative uses to which the land could be used. Therefore, for State land, the estimated fair market value based on the highest and best alternative use of the land according to the County General Plan is used as the land acquisition cost.

   2. Relocation of Displacees: Included in this item are the relocation payments to all tenants, owners, farms, and businesses that are displaced. Consultant and staff costs are included here since they vary with the number of tenants to be relocated.

B. On-Site Development
   The following cost items are included in the on-site development costs:
1. **Grading**: Cost of grading necessary to adapt the existing topographic features for buildings, play areas, and other facilities.

2. **Utilities**: Additional costs of making utility connections, viz. water and sewer, due to adverse conditions.

3. **Drainage**: Cost of constructing major drainage facilities (lined channels, large culverts, etc.) if site is in a flood plain.

4. **Foundation**: Additional foundation cost due to adverse subsurface conditions.

5. **Clearing**: Cost of removing existing structures.

### C. Off-Site Development

The following cost items are included in the off-site development costs:

1. **Utilities**: Cost of providing additional lines or increasing sizes due to additional loads imposed by the school.

2. **Drainage**: Cost of constructing additional drainage facilities to accommodate the proposed runoff pattern of the school.

3. **Access Roads**: Cost of constructing necessary access roadways to the site if none is available.

### D. Bus Subsidy

An allowance for bus transportation is provided to students residing more than one mile (road distance) away from the school. For purposes of this study the costs of the monthly subsidies over a 20-year period are computed and compared for each alternative site.
APPENDIX B
COST COMPUTATIONS

LAND ACQUISITION

The estimated land values for the alternative sites were developed from current sales data from the State Tax Department. The following estimated values are provided:

Makawao - Urban residential $3.00/s.f.
    Urban acreage $45,000/ac.
    Agriculture acreage $20,000/ac.

Pukalani - Urban residential $2.75/s.f.
    Rural residential $1.25/s.f.
    Agricultural acreage $20,000/ac.

Kula - Agriculture acreage $25,000/ac.

A. Land Value

The following land values were computed for each site:

<table>
<thead>
<tr>
<th>Site</th>
<th>Area</th>
<th>Type</th>
<th>Unit Cost</th>
<th>Land Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8 ac.</td>
<td>Urban</td>
<td>$45,000</td>
<td>$360,000</td>
</tr>
<tr>
<td>B</td>
<td>4 ac.</td>
<td>Urban</td>
<td>$40,000</td>
<td>$160,000</td>
</tr>
<tr>
<td></td>
<td>2½ ac.</td>
<td>Rural</td>
<td>$30,000</td>
<td>$75,000</td>
</tr>
<tr>
<td>C</td>
<td>9 ac.</td>
<td>Agriculture</td>
<td>$25,000</td>
<td>$225,000</td>
</tr>
<tr>
<td>D</td>
<td>6½ ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$130,000</td>
</tr>
<tr>
<td>E</td>
<td>8 ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>F</td>
<td>8 ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>G</td>
<td>9 ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$180,000</td>
</tr>
<tr>
<td>H</td>
<td>8 ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>I</td>
<td>8 ac.</td>
<td>Agriculture</td>
<td>$20,000</td>
<td>$160,000</td>
</tr>
<tr>
<td>J</td>
<td>9 ac.</td>
<td>Urban</td>
<td>$40,000</td>
<td>$360,000</td>
</tr>
</tbody>
</table>

B. Acquisition Costs

In addition to the cost of the land, additional acquisition costs will be required as follows:

<table>
<thead>
<tr>
<th>Site</th>
<th>Bldgs a/</th>
<th>Appraisal b/</th>
<th>Titles c/</th>
<th>Reloc. d/</th>
<th>Staff f/</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>None</td>
<td>$3,500</td>
<td>$3,000</td>
<td>$15,000</td>
<td>$3,500</td>
<td>$25,000</td>
</tr>
<tr>
<td>B</td>
<td>None</td>
<td>$2,500</td>
<td>$1,000</td>
<td>0</td>
<td>$2,000</td>
<td>$5,500</td>
</tr>
<tr>
<td>C</td>
<td>None</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

a/ Based on current tax assessment multiplied by 1.43.
b/ $2,000 plus $500 for each lot.
c/ $1,000 per lot.
d/ $5,000 for each family, farm, or business.
f/ $2,000 plus $500 per displacee.
C. Land Acquisition Cost Summary

<table>
<thead>
<tr>
<th>Site</th>
<th>Land Value</th>
<th>Acquisition Cost</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$360,000</td>
<td>$25,000</td>
<td>$385,000</td>
</tr>
<tr>
<td>B</td>
<td>$235,000</td>
<td>$5,500</td>
<td>$240,500</td>
</tr>
<tr>
<td>C</td>
<td>$225,000</td>
<td>0</td>
<td>$225,000</td>
</tr>
<tr>
<td>D</td>
<td>$130,000</td>
<td>$6,000</td>
<td>$136,000</td>
</tr>
<tr>
<td>E</td>
<td>$160,000</td>
<td>$6,000</td>
<td>$166,000</td>
</tr>
<tr>
<td>F</td>
<td>$160,000</td>
<td>$6,000</td>
<td>$166,000</td>
</tr>
<tr>
<td>G</td>
<td>$180,000</td>
<td>$6,000</td>
<td>$186,000</td>
</tr>
<tr>
<td>H</td>
<td>$160,000</td>
<td>$11,000</td>
<td>$171,000</td>
</tr>
<tr>
<td>I</td>
<td>$160,000</td>
<td>$11,000</td>
<td>$171,000</td>
</tr>
<tr>
<td>J</td>
<td>$360,000</td>
<td>$5,500</td>
<td>$365,500</td>
</tr>
</tbody>
</table>

ON-SITE DEVELOPMENT

Each alternative site will have development work items that will cost the same and others that will differ or are unique to individual sites. The cost computations that follows are made only for items that differ in cost or are unique to individual sites. (See Figures on pages B-15 to B-27.)

A. Site A

Grading: 8 acres @ 6% slope = 5,700 cy/ac
Cost = 45,600 cy @ $4/cy $182,400

Utilities:
1. Water - No exceptional on-site cost.
2. Sewer - No exceptional on-site cost.
3. Electrical - No exceptional on-site cost.

Drainage: No exceptional on-site cost.

Foundation: No exceptional on-site cost.

Clearing: Grub 8 acres
Cost = 8 ac @ $600/ac 4,800

Total On-Site Development Cost $187,200 (exclusive of similar cost items)
B. Site B

Grading: 6½ acres @ 8% slope = 7,200 cy/ac
Cost = 46,800 cy @ $4/cy
$187,200

Utilities:
1. Water - Extend water main from Iolani Street to site.
   Cost = 500 lf 8" main @ $30/lf
   15,000

2. Sewer - No exceptional costs anticipated.
3. Electrical - No exceptional costs anticipated.

Drainage: No exceptional on-site cost.

Foundation: No exceptional on-site cost.

Clearing: Grub 6½ acres
Cost = 6½ ac @ $600/ac
3,900

Total On-Site Development Cost (exclusive of similar cost items) $206,100

C. Site C

Grading: 9 acres @ 12% slope = 10,100 cy/ac
Cost = 90,900 cy @ $6/cy
$545,400

Utilities:
1. Water - No exceptional on-site cost.
2. Sewer - No exceptional on-site cost.
3. Electrical - No exceptional on-site cost.

Drainage: No exceptional on-site cost.

Foundation: No exceptional on-site cost.

Clearing: Clear and grub 9 acres
Cost = 9 ac @ $1,000/ac
9,000

Total On-Site Development Cost (exclusive of similar cost items) $554,400

D. Site D

Grading: 6½ acres @ 4% slope = 4,200 cy/ac
Cost = 27,300 cy @ $4/cy
$109,200
Utilities:

1. Water - Extend water main from Makawao Avenue to site.
   Cost = 1,000 lf 8" main @ $30/lf   30,000

2. Sewer - No exceptional on-site cost.

3. Electrical - No exceptional on-site cost.

Drainage:

Site D will require additional on-site drainage improvements over the other sites based on the existing drainage easement through the site. It will be necessary to extend the existing drainage improvement along the northeast boundary from the park site to the makai gully.

Cost = 700 lf 48" CMP @ $75/lf   52,500

Foundation: No exceptional on-site cost.   0

Clearing: Grub 6½ acres
   Cost = 6½ ac x $600/ac   3,900

Total On-Site Development Cost $195,600
(exclusive of similar cost items)

E. Site E

Grading: 8 acres @ 4% slope = 4,200 cy/ac
   Cost = 33,600 cy @ $4/cy   $134,400

Utilities:

1. Water - No exceptional on-site cost.

2. Sewer - No exceptional on-site cost.

3. Electrical - No exceptional on-site cost.

Drainage:

This site is bisected by a swale which drains an area of approximately 135 acres and is vulnerable to overland flood flows. Accordingly, the site will require construction of a diversion ditch and drainage culvert to accommodate potential flood waters through the school site safely.

Cost = Excavate 900 cy @ $6/cy   $ 5,400
   Plus 350 lf 48" CMP @ $75/lf   26,250

31,650
<table>
<thead>
<tr>
<th>Site</th>
<th>Grading</th>
<th>Utilities</th>
<th>Drainage</th>
<th>Foundation</th>
<th>Clearing</th>
<th>Total On-Site Development Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F. Site F</strong></td>
<td>8 acres @ 5% slope = 4,800 cy/ac</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8 ac @ $600/ac</td>
<td>$4,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$170,850 (exclusive of similar cost items)</td>
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<tr>
<td><strong>G. Site G</strong></td>
<td>9 acres @ 12% slope = 10,100 cy/ac</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9 ac @ $600/ac</td>
<td>$5,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$369,000 (exclusive of similar cost items)</td>
</tr>
<tr>
<td><strong>H. Site H</strong></td>
<td>8 acres @ 6% slope = 5,700 cy/ac</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>9 ac @ $600/ac</td>
<td>$4,800</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$182,400 (exclusive of similar cost items)</td>
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</tbody>
</table>
Utilities:
1. Water - No exceptional on-site cost.
2. Sewer - No exceptional on-site cost.
3. Electrical - No exceptional on-site cost.

Drainage: No exceptional on-site cost.

Foundation: No exceptional on-site cost.

Clearing: Grub 8 acres
Cost = 8 ac @ $600/ac

Total On-Site Development Cost $187,200
(exclusive of similar cost items)

I. Site I

Grading: 8 acres @ 6% slope = 5,700 cy/ac
Cost = 45,600 cy @ $4/cy

Utilities:

1. Water - No exceptional on-site cost.
2. Sewer - No exceptional on-site cost.
3. Electrical - No exceptional on-site cost.

Drainage: No exceptional on-site cost.

Foundation: No exceptional on-site cost.

Clearing: Grub 8 acres
Cost = 8 ac @ $600/ac

Total On-Site Development Cost $187,200
(exclusive of similar cost items)

J. Site J

Grading: 9 acres @ 12% slope = 10,100 cy/ac
Cost = 90,900 cy @ $6/cy

Utilities:

1. Water - Extend water line from Kula Highway to site.
   Cost = 500 lf 8" main @ $30/lf
   15,000

2. Sewer - No exceptional on-site cost.

3. Electrical - Extend feeder line from Kula Highway to site.
   Cost = 500 lf @ $20/lf
   10,000
Drainage:  No exceptional on-site cost.  
Foundation: No exceptional on-site cost.  

Clearing:  Grub 9 acres  
Cost = 9 ac @ $600/ac  

Total On-Site Development Cost $575,800 
(exclusive of similar cost items)

OFF-SITE DEVELOPMENT

Each alternative site will have development work items that will cost the same and others that will differ or are unique to individual sites. The cost computations that follows are made only for items that differ in cost or are unique to individual sites.

A. Site A

Water:  Existing 6-inch main along Maha and Ukiu Roads.

Drainage:

This site will require off-site drainage improvements to convey the runoff from the proposed school development. The cost of installing a drain line along Ukiu and Maha Roads and acquiring a drainage easement to a gully is computed as follows:

Drain Line 1,800 lf 24" RCP @ $40/lf  $72,000
Easement 60 ft long by 10 ft wide @ $3/sf  $1,800

Drainage Cost $73,800

Electrical:  Existing electrical service along Ukiu Road.

Access Road:

This site will require widening of Maha and Ukiu Roads from Baldwin Avenue and Makawao Avenue. The existing right-of-way will be increased from 20 ft. to 44 ft. This cost is estimated as follows:

Land Acquisition
24 ft by 3,000 lf = 72,000 sf
72,000 sf @ $3/sf  $216,000

Appraisal, Title, Staff Costs
31 parcels @ $2,000  62,000
Road Construction
3,500 lf @ $92/lf 322,000
Administration, Design, Contingency
30% 96,600
Roadway Cost 762,600
Total Off-Site Cost $1,059,800

E. Site E

Water: Replace existing 6-inch main with 8-inch main from Makawao Avenue to site.

1,100 lf @ $30/lf $33,000

Drainage: Existing gully below site.

Electrical: Existing service on Makani Road.

Access Road:

Widen Makani Road from Makawao Avenue to school site by increasing the right-of-way from 40 ft. to 44 ft.

Land Acquisition
4 ft by 1,400 lf = 5,600 sf
5,600 sf @ $3/sf $16,800

Appraisal, Title, Staff Costs
2 parcels @ $2,000 4,000

Road Construction
1,400 lf @ $80/lf 112,000

Administration, Design, Contingency
30% 33,600
Roadway Cost 166,400
Total Off-Site Cost $199,400

F. Site F

Water: Replace existing 6-inch main with 8-inch main from Makawao Avenue to site.

900 lf @ $30/lf $27,000

Drainage: Existing service on Makani Road.

Electrical: Existing service on Makani Road.
Access Road:
Widen Makani Road from Makawao Avenue to school site by increasing the right-of-way from 40 ft. to 44 ft.

Land Acquisition
4 ft by 900 lf = 3,600 sf
3,600 sf @ $3/sf $ 10,800

Appraisal, Title, Staff Costs
2 parcels @ $2,000 4,000

Road Construction
900 lf @ $80/lf 72,000

Administration, Design, Contingency
30%
Roadway Cost 21,600 108,400
Total Off-Site Cost $135,400

G. Site G

Water: Install new 8-inch main from Makawao Avenue along Laie Drive.
1,200 lf @ $30/lf $ 36,000

Drainage: Use sheet flow to existing gully.

Electrical: Existing service along Laie Drive.

Access Road:
Widen Laie Drive from Makawao Avenue to Makawao Avenue by increasing the right-of-way from 40 ft. to 44 ft.

Land Acquisition
4 ft by 2,000 lf = 8,000 sf
8,000 sf @ $3/sf $ 24,000

Appraisal, Title, Staff Costs
6 parcels @ $2,000 12,000

Road Construction
2,000 lf @ $80/lf 160,000

Administration, Design, Contingency
30%
Roadway Cost 48,000 244,000
Total Off-Site Cost $280,000
H. Site H

Water: New storage and distribution system required.

- Pump, controls, & building: $100,000
- 0.3 mg reservoir: 150,000
- 6,000 lf 12-inch transmission line: 150,000
- 1-acre pump & reservoir site: 20,000

Total Water Cost: $420,000

Drainage: Construct 1,500 lf of 36-inch drain along Makawao Avenue to existing gully.

- 1,500 lf 36-inch RCP @ $50/lf: 75,000

Electrical: Existing service along Makawao Avenue.

Access Road: Existing access from Makawao Avenue and Haleakala Highway.

Total Off-Site Cost: $495,000

I. Site I

Water: Same improvements as Site H.

Total Water Cost: $420,000

Drainage: Construct 2,500 lf of 36-inch drain along Haleakala Highway and Makawao Avenue to existing gully.

- 2,500 lf 36-inch RCP @ $50/lf: 125,000

Electrical: Existing service along Haleakala Highway.

Access Road: Existing access from Haleakala Highway.

Total Off-Site Cost: $545,000

J. Site J

Water: Same improvements as Site H.

Total Water Cost: $420,000

Drainage: Use sheet flow to existing gully.

Electrical: Existing service along Kula Highway.
Access Road: Construct access road from Kula Highway to school site. Provide pedestrian overpass for students across highway.

Land Acquisition - Included with school site.

Road Construction
500 lf @ $92/lf $46,000

Overpass Construction 200,000

Administration, Design, Contingency
30% 73,800 319,800

Roadway Cost 73,800 319,800

Total Off-Site Cost $739,800

BUS SUBSIDY

The bus subsidy costs for the alternative sites were computed based on the enrollment projections by the DOE for the three elementary feeder schools.

A. Enrollment Percentage

<table>
<thead>
<tr>
<th>School</th>
<th>K-6 Enrollment</th>
<th>%</th>
<th>7-8 Enrollment</th>
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<tbody>
<tr>
<td>Makawao</td>
<td>600</td>
<td>35</td>
<td>175</td>
</tr>
<tr>
<td>Pukalani</td>
<td>760</td>
<td>45</td>
<td>225</td>
</tr>
<tr>
<td>Kula</td>
<td>350</td>
<td>20</td>
<td>100</td>
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</table>

Total 1,710 500

The estimated number of students residing within one mile of each alternative site was computed based on the percentage of urban or rural zoned land within a mile of the site as follows:

<table>
<thead>
<tr>
<th>Site</th>
<th>Location</th>
<th>Zoned Acreage</th>
<th>Acreage within 1 mile</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Makawao</td>
<td>540 Urban</td>
<td>473</td>
<td>88</td>
</tr>
<tr>
<td>B</td>
<td>Pukalani</td>
<td>1050 Urban</td>
<td>703</td>
<td>67</td>
</tr>
<tr>
<td>C</td>
<td>Kula</td>
<td>1735 Rural</td>
<td>193</td>
<td>11</td>
</tr>
<tr>
<td>D</td>
<td>Makawao</td>
<td>540 Urban</td>
<td>400</td>
<td>74</td>
</tr>
<tr>
<td>E</td>
<td>Makawao</td>
<td>540 Urban</td>
<td>400</td>
<td>74</td>
</tr>
<tr>
<td>F</td>
<td>Makawao</td>
<td>540 Urban</td>
<td>375</td>
<td>69</td>
</tr>
<tr>
<td>G</td>
<td>Makawao</td>
<td>540 Urban</td>
<td>175</td>
<td>32</td>
</tr>
<tr>
<td>H</td>
<td>Pukalani</td>
<td>1050 Urban</td>
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<tr>
<td>I</td>
<td>Pukalani</td>
<td>1050 Urban</td>
<td>350</td>
<td>33</td>
</tr>
<tr>
<td>J</td>
<td>Pukalani</td>
<td>1050 Urban</td>
<td>325</td>
<td>31</td>
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</table>
### B. Bussing Cost

The bus subsidy costs are computed based on the following:

\[
PW_T = PW_1 + \ldots + PW_{20}
\]

\[
= P(SP6-1)N(PS6-1) + \ldots R(SP6-20)N(PS6-20)
\]

Where:

- **P.W.** = Present worth cost
- **R** = $107/year regular annual bus subsidy per student based on data provided by Central Division, DADS
- **(SPi-n)** = Escalation factor
- **(PSe-n)** = Present worth
  - **N** = Number of students qualifying for subsidy
  - **n** = Number of years
  - **i = 6% interest**
  - **e = 6% escalation**

Since \( i = 6\% \) and \( e = 6\% \), the interest and escalation cancel each other so that the above equation is reduced to the following:

\[
PW = RNn = 107(N)20 = \$2140N
\]

<table>
<thead>
<tr>
<th>Site</th>
<th>Local Students</th>
<th>%</th>
<th>No. Walking</th>
<th>No. Bussed</th>
</tr>
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<tr>
<td>A</td>
<td>175</td>
<td>88</td>
<td>154</td>
<td>346</td>
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<td>B</td>
<td>225</td>
<td>67</td>
<td>151</td>
<td>349</td>
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<tr>
<td>C</td>
<td>100</td>
<td>11</td>
<td>11</td>
<td>489</td>
</tr>
<tr>
<td>D</td>
<td>175</td>
<td>74</td>
<td>130</td>
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<tr>
<td>F</td>
<td>175</td>
<td>69</td>
<td>121</td>
<td>379</td>
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<tr>
<td>G</td>
<td>175</td>
<td>32</td>
<td>56</td>
<td>444</td>
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<td>H</td>
<td>225</td>
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<td>I</td>
<td>225</td>
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<tr>
<td>J</td>
<td>225</td>
<td>31</td>
<td>70</td>
<td>430</td>
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</tbody>
</table>

Since \( i = 6\% \) and \( e = 6\% \), the interest and escalation cancel each other so that the above equation is reduced to the following:

\[
PW = RNn = 107(N)20 = \$2140N
\]
C. Summary of Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
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<td>Land Acquisition</td>
<td>385.0</td>
<td>240.5</td>
<td>225.0</td>
<td>136.0</td>
<td>166.0</td>
<td>166.0</td>
<td>186.0</td>
<td>171.0</td>
<td>171.0</td>
<td>365.5</td>
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<tr>
<td>On-Site Cost</td>
<td>187.2</td>
<td>206.1</td>
<td>554.4</td>
<td>195.6</td>
<td>170.8</td>
<td>158.4</td>
<td>169.0</td>
<td>187.2</td>
<td>187.2</td>
<td>575.8</td>
<td></td>
</tr>
<tr>
<td>Off-Site Cost</td>
<td>710.6</td>
<td>119.6</td>
<td>260.0</td>
<td>1059.8</td>
<td>199.4</td>
<td>135.4</td>
<td>280.0</td>
<td>495.0</td>
<td>545.0</td>
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<tr>
<td>Bussing</td>
<td>740.4</td>
<td>746.9</td>
<td>1046.9</td>
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<td>791.8</td>
<td>811.1</td>
<td>950.2</td>
<td>911.6</td>
<td>911.6</td>
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<tr>
<td>Total Cost</td>
<td>2023.2</td>
<td>1313.1</td>
<td>2085.9</td>
<td>2183.2</td>
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<td>1764.8</td>
<td>1814.8</td>
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</table>
New Access Road 1/2 Mile and Main Road Widening

Cross Section
1/2 Scale

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<tr>
<th>Quantity</th>
<th>CF2001</th>
<th>CF2011</th>
<th>CF2012</th>
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<tr>
<td>Gravel</td>
<td>0.45CY/LE</td>
<td>4.00</td>
<td>700.00</td>
</tr>
<tr>
<td>2&quot; AGG L N C. FEE (6' WIDE)</td>
<td>2.66 CY/LE</td>
<td>10.00</td>
<td>21.00</td>
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<tr>
<td>Core &amp; Cutter</td>
<td>5.00</td>
<td>10.00</td>
<td>14.00</td>
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<tr>
<td>Sidewalk</td>
<td>0.50 CY/LE</td>
<td>5.00</td>
<td>50.00</td>
</tr>
<tr>
<td>34&quot; LEARN</td>
<td>1.00 LE</td>
<td>80.00</td>
<td>80.00</td>
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10/15
### CROSS SECTION

No Scale

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<th>Unit</th>
<th>QTY</th>
<th>Unit Cost</th>
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<tr>
<td></td>
<td>Graveling</td>
<td></td>
<td></td>
<td>4.00</td>
<td>16.00</td>
</tr>
<tr>
<td></td>
<td>2&quot; PVC or 6&quot; EAC (B Width)</td>
<td></td>
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<td>4.00</td>
<td>16.00</td>
</tr>
<tr>
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<td>Gravel Ditch</td>
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<td>1.00</td>
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<td></td>
<td>E PVC 6&quot;</td>
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<td>24&quot; Drain</td>
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<td></td>
<td></td>
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<td></td>
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<td>15.00</td>
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**AVG. $5.25**
12" WATER TO 0.3MG. RESERVOIR AT 1400' ELEV.

PROPOSED HIGHWAY BY-PASS

ROSTER PUMP SITE AND FACILITIES

12" W.
NEW 50' DRAIN

H
12" WATER TO G.3 MG RESERVOIR AT 1900' ELEV.

PROPOSED HIGHWAY BY-PASS

BOOSTER PUMP SITE & FACILITIES

NEW 36' DRAIN

NEW 36' DRAIN
## APPENDIX C
### INTERGOVERNMENTAL CORRESPONDENCE
#### SITE SELECTION PHASE

**DRAFT SITE SELECTION REPORT**

**INDEX OF CORRESPONDENCES**

<table>
<thead>
<tr>
<th>Federal</th>
<th></th>
<th>Response Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Dept. of Agriculture Soil Conservation Service</td>
<td></td>
<td>July 12, 1976</td>
</tr>
<tr>
<td>U.S. Army Corps of Engineers</td>
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<td>July 14, 1976</td>
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<thead>
<tr>
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<td>Dept. of Education</td>
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<td>Dept. of Health</td>
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<td>Dept. of Land and Natural Resources</td>
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<td>Dept. of Planning and Economic Development</td>
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<td>July 7, 1976</td>
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<tr>
<td>Dept. of Transportation</td>
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<tr>
<td>University of Hawaii</td>
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<tr>
<td>Parks Department</td>
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<td>December 21, 1976</td>
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<tr>
<td>Dept. of Public Works</td>
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<tr>
<td>Dept. of Water Supply</td>
<td></td>
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<tr>
<td>Dept. of Economic Development</td>
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<table>
<thead>
<tr>
<th>Other</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Maui District School Advisory Council</td>
<td></td>
<td>July 21, 1976</td>
</tr>
<tr>
<td>Makawao P.T.A.</td>
<td></td>
<td>July 15, 1976</td>
</tr>
<tr>
<td>Kula P.T.A.</td>
<td></td>
<td>No Response</td>
</tr>
<tr>
<td>Pukalani Community Association</td>
<td></td>
<td>No Response</td>
</tr>
<tr>
<td>Hawaiian Telephone Co.</td>
<td></td>
<td>July 9, 1976</td>
</tr>
<tr>
<td>Maui Electric Co., Ltd.</td>
<td></td>
<td>February 2, 1977</td>
</tr>
</tbody>
</table>
J. F. Department of Agriculture
Soil Conservation Service
217 Federal Building
Kailua, Maui, Hawaii

Gentlemen:

Subject: Makawao Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments relating to the soil properties of the alternative sites under consideration for the new school. After receipt of your comments and those from the various government agencies and organizations, we will recommend a specific site and prepare the environmental impact statement.

We would appreciate your response by July 25, 1976. If there are any questions, please have your staff contact Mr. Harold Sonomura of my Planning Branch at 548-5703.

Very truly yours,

RXRAO NISHIOKA
State Public Works Engineer

HS:nk 5-4
Attachment
Mr. Rikio Nishioka  
State Public Works Engineer  
Dept. of Accounting & General Services  
Division of Public Works  
P. O. Box 119  
Honolulu, HI 96810

Dear Mr. Nishioka:

Subject: Makawao Intermediate School  
Draft Site Selection Report

We do not have any comments to submit regarding soil properties for the alternative sites under consideration.

Thank you for the opportunity to review this document.

Sincerely,

Francis C. H. Lum  
State Conservationist
U.S. Army Corps of Engineers
Port Shafter
Building 230
APO 96570

Gentlemen:

Subject: Makino-Pukalani Intermediate School Draft Site Selection Report

Transmitted herewith for your review and comments is a copy of the subject report. We would appreciate your comments on the alternative sites under consideration relative to items within your jurisdiction. After comments are received from the various governmental agencies and community groups, a specific site will be recommended and the environmental impact statement prepared.

We would appreciate your response by July 23, 1976. If there are any questions, please have your staff contact Mr. Harold Sonomura of my Planning Branch staff at 548-5703.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

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

Dear Mr. Nishioka:

We received the Draft Site Selection Report for Makawao-Pukalani Intermediate School on 29 June 1976 and offer the following comments:

a. Site "E" is bisected by a swale which drains an area of approximately 135 acres and is vulnerable to overland flood flows. Drainage improvements may be desired to prevent disruption of school activities at times of rainfall.

b. The remaining sites will require only minor drainage improvements to protect the school facilities from overland flood flows.

Thank you for the opportunity to provide comments on your project. We look forward to reviewing the environmental impact statement when it is prepared.

Sincerely yours,

[Signature]

KISUK CHEUNG  
Chief, Engineering Division
Honorable John Farias  
Chairman  
Department of Agriculture  
State of Hawaii  
Honolulu, Hawaii  

Dear Mr. Farias:

Subject: Makawao Intermediate School  
Draft Site Selection Report  

Transmitted herewith is a copy of the subject report for your review and comments. We would appreciate your input relative to the agricultural potential of the alternative sites under consideration for the proposed school. A specific school site will be recommended and the environmental impact statement prepared after comments and recommendations are received from the various governmental agencies and community organizations.

We would appreciate your response by July 23, 1976. Please have your staff call Mr. Harold Sonomura of my Public Works Division at 540-5703 if there are any questions.

Very truly yours,

HIDEO MURAKAMI  
State Comptroller  

HS: Mr.  
Attachment
Mr. Darrell Oishi
District Superintendent
Hawaii District Office
Department of Education
P. O. Box 1070
Wailuku, Maui, Hawaii 96793

Dear Mr. Oishi:

Subject: Makawao Intermediate School
Revised Draft Site Selection Report
Act 187/73, Item F-1

Transmitted herewith for your review and comments are two (2) copies of the draft site selection report for the subject project. The report has been revised from the original report prepared in October 1972 and incorporates the following changes:

(1) Opening date rescheduled from 1977 to a tentative opening between 1982-1985.

(2) Grade level changed from 5-8 to 7-8.

(3) Design enrollment reduced from 735 students in 1990 to 500 students in 1995.

(4) Adoption of a general plan for the Makawao-Pukalani-Kula area.

(5) Completion of the 5-year boundary review by the State Land Use Commission.

(6) Construction of Pukalani Elementary School.

After comments and recommendations on the draft report are received from various government agencies and community
organizations, we will recommend a specific site and prepare a draft environmental impact statement for that site.

We would appreciate your review and comments by July 23, 1976.

Very truly yours,

TEURINGO TOOKAGA
Chief, Planning Branch
Division of Public Works

HS:mk 5-5
Attachment
cc: Mr. K. Tokushige
MEMO TO: Honorable Hideo Murakami, Comptroller
Department of Accounting and General Services

FROM: Charles G. Clark, Superintendent
Department of Education

SUBJECT: Draft Site Selection Report for an Intermediate School
For the Makawao-Pukalani-Kula Area

We have reviewed the subject draft and submit the following comments:

DISTRICT POSITION

The Maui School District has, for some years, favored the Eddie Tam Site (Site "D"). The District continues to prefer the educational advantages of Site D.

EVALUATION OF SITE D

We note that Table 6 (Summary of Alternative Sites) does not appear to particularly favor Site D. The more significant disadvantages are the need for a new road, comparatively high off-site development costs, and limited auto and pedestrian access. On the other hand, the site is physically attractive, would require minimum grading, and would permit the school to use the facilities of the Eddie Tam Memorial Complex.

The draft study also indicates that Site D would be relatively expensive to develop [approximately $577,000 more than Site B (Pukalani) for on- and off-site development]. The major requirement is the need to construct an extension of Ukiu Road and to widen both Ukiu Road and Maha Road.

It appears that the most significant question with regard to Site D is the potential off-site development costs. We request further investigation to determine if it may be feasible to reduce the estimated cost by improving only one road.
ENROLLMENT PROJECTIONS

Updated enrollment projections are attached (Enclosure 1). There are no significant changes. Substitute for Table 1, page 4.

FEEDER COMPLEX

An updated feeder chart is also attached (Enclosure 2). There is no significant change. The opening date for Makawao is proposed between 1983 and 1985 based on current enrollment projections. Substitute for page 3.

ACREAGE REQUIREMENT

Acreage requirements for all evaluated sites should be updated to reflect revised acreage criteria for new schools (Enclosure 3).

RECOMMENDATIONS

Prior to preparing your final evaluation:

1) Verify that Maui County will require that both Ukiu Road and Maha Road be widened if Site D is selected.

2) Recompute acreage requirements and costs based on Enclosure 3.

Enclosures
### MAUI HIGH COMPLEX
#### ENROLLMENT PROJECTIONS
##### 1975-1995

<table>
<thead>
<tr>
<th>YEAR</th>
<th>K-6</th>
<th>7-8</th>
<th>9-12</th>
<th>TOTAL</th>
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<tr>
<td>1975 (Actual)</td>
<td>2128</td>
<td>718</td>
<td>1391</td>
<td>4237</td>
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<td>1980</td>
<td>2393</td>
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<td>1985</td>
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<tr>
<td>1995</td>
<td>3090</td>
<td>860</td>
<td>1600</td>
<td>5550</td>
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#### MAKAHAO-PUKALANI-KULA

<table>
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<tr>
<th>YEAR</th>
<th>Pukalani K-6</th>
<th>Makawao K-6</th>
<th>Pukalani-Makawao-Kula 7-8</th>
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<tr>
<td>1975 (Actual)</td>
<td>230</td>
<td>375</td>
<td>309</td>
</tr>
<tr>
<td>1980</td>
<td>333</td>
<td>440</td>
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<td>475</td>
<td>493</td>
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<td>1990</td>
<td>617</td>
<td>546</td>
<td>430</td>
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<tr>
<td>1995</td>
<td>760</td>
<td>600</td>
<td>500</td>
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</tbody>
</table>

Enclosure 1

C-11
EXISTING

K-8 Haiku
K-8 Kahului
K-8 Kula
K-8 Makawao
K-8 Paia
K-8 Puunene

PROPOSED

K-8 Haiku
K-8 Paia
K-8 Kahului

K-6 Kula
K-6 Makawao
K-6 Pukalani (1976)

Maui High
9-12

Makawao Intermediate
1983-1985

Enclosure 2
## Acreage Requirements for New Schools

<table>
<thead>
<tr>
<th>Type</th>
<th>Enrollment</th>
<th>Playfields</th>
<th>Buildings &amp; Open Space</th>
<th>Parking</th>
<th>Set Backs</th>
<th>Total</th>
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<tr>
<td><strong>MINIMUM</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem.</td>
<td>400</td>
<td>2 1/2</td>
<td>1</td>
<td>1/2</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Inter.</td>
<td>400</td>
<td>3 1/2</td>
<td>1 1/2</td>
<td>1/2</td>
<td>1 1/2</td>
<td>7</td>
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<tr>
<td>High</td>
<td>750</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td><strong>MAXIMUM</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elem.</td>
<td>1000</td>
<td>3 1/2</td>
<td>2</td>
<td>1</td>
<td>1 1/2</td>
<td>8</td>
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<tr>
<td>Inter.</td>
<td>1200</td>
<td>5 1/2</td>
<td>3 1/2</td>
<td>1</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>High</td>
<td>2000</td>
<td>12</td>
<td>9</td>
<td>5</td>
<td>4</td>
<td>30</td>
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</table>

Note 1 - Building and open space acreage assumes finger type construction, and one and two-story construction for elementary and intermediate schools, and one to three-story construction for high schools.

Note 2 - Totals assume all acreage is usable with slopes not to exceed 9 percent.

Note 3 - Acreage requirements for enrollment between Minimum and Maximum:
- Elementary - 1 acre per 200* students in excess of 400
- Intermediate - 1 acre per 160* students in excess of 400
- High - 1 acre per 125* students in excess of 750

Note 4 - If a school adjoins a county park, up to 50% of the playfield requirement may be satisfied by joint use agreement permitting COE priority use of designated park facilities during school hours.

*(or fraction thereof)

**APPROVED**

Superintendent

Date 7/1/76

Enclosure 3 C-13
Honorable Charles Clark  
Superintendent  
Department of Education  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Clark:

Subject: Draft Site Selection Report  
Makawao-Pukalani-Kula Intermediate School

Thank you for your July 27, 1976 comments on the subject document. We have the following responses to your concerns:

1. **District Position**

   Maui District's preference for Site D will be considered in the final evaluation and recommendation of the school site.

2. **Site D Evaluation**

   The extent of off-site roadway improvements required by the County to adequately serve the school has been referred to the County. The off-site roadway cost will be adjusted if the County determines that only one roadway has to be improved.

3. **Enrollment Projections**

   The updated enrollment projections will be incorporated into the report.

4. **Feeder Complex**

   The updated feeder chart and new opening date will be incorporated into the report.

5. **Acreage Requirement**

   The revised DOE acreage criteria will be used to determine the site size. Based on the design
enrollment of 500 students, a minimum of 8 acres will be used except that this minimum will be 6.5 acres for sites adjacent to a County park. The draft report will be revised to reflect these changes.

6. Recommendations

Maui County's requirement on the need to improve both Maha and Ukiu Roads if Site A or Site D is selected will be verified as requested and the acreage requirements and corresponding cost estimates will be revised prior to preparing a final recommendation.

Very truly yours,

HIDEO MURAKAMI
State Comptroller
Dr. James S. Kumagai
Deputy Director for
Environmental Health
Environmental Protection and
Health Services Division
Department of Health
State of Hawaii
Honolulu, Hawaii

Dear Dr. Kumagai:

Subject: Makawao Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments. We would appreciate your input relative to the proposed use of swimming pools at each of the alternative sites evaluated in the study. A specific site will be recommended and the environmental impact statement prepared after comments and recommendations from various governmental agencies and community groups are received.

We would appreciate your review and comments by July 23, 1976. Please have your staff call Mr. Harold Sonomura of my Planning Branch at 540-5703 if there are any questions.

Very truly yours,

RIKIO NISHIYAMA
State Public Works Engineer

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

Dear Mr. Nishioka:  

We acknowledge receipt of your letter regarding the Hakawao Intermediate School Draft Site Selection Report.  

The proposed alternative sites proposed for this project are all in unsewered areas. The use of cesspools have been accepted for such areas on the condition that the general requirements as set forth in Public Health Regulations, Chapter 38, Sewage Treatment and Disposal Systems, Sections 4A, 5A, and 6A are met. A copy of Chapter 38 is attached herewith for your perusal.  

If further information is needed please contact Mr. Brian Choy at Phone No. 548-6411.  

Very truly yours,  

[Signature]  

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

cc: Maui DHO
Honorable Christopher Cobb
Chairman
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Cobb:

Subject: Makawao Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments. A specific school site will be recommended and the environmental impact statement prepared after comments and recommendations on the draft report are received from the various governmental agencies and community organizations.

We would appreciate your response by July 23, 1976. Please have your staff call Mr. Harold Sonomura of my Public Works Division at 548-5703 if there are any questions.

Very truly yours,

HIDEO HURAKAMI
State Comptroller

HS:dr
Attachment
Honorably Hideo Murakami  
Department of Accounting  
and General Services  
P. O. Box 119  
Honolulu, Hawaii 96810  

Dear Sir:

Thank you for sending us a copy of the site selection report for Makawao Intermediate School.

Please notify our Land Management Division when final selection has been made, and you are prepared to proceed with acquisition.

Very truly yours,

[Signature]
CHRISTOPHER COBB  
Chairman of the Board

cc: Land Management
Honorable Hideto Kono  
Director  
Department of Planning and Economic Development  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Kono:

Subject: Makawao Intermediate School  
Draft Site Selection Report

Please find attached herewith a copy of the subject report for your review and comments.

A specific site will be recommended for the school and the environmental impact statement prepared after comments on the draft report are received from the various governmental agencies and community groups.

We would appreciate your response by July 22, 1976. Please have your staff call Mr. Harold Sonomura of my Public Works Division at 548-5703 if there are any questions.

Very truly yours,

HIDEO MIYAKAWA  
State Comptroller

HS:dr  
Attachment
July 7, 1976

MEMORANDUM

TO: The Honorable Hideo Murakami, State Comptroller
Department of Accounting and General Services

FROM: Hideto Kono, Director

SUBJECT: Draft Site Selection Report for Makawao Intermediate School, Maui

Thank you for your Letter No. (P)1681.6 dated June 29, 1976, transmitting a copy of the subject report.

We have reviewed the report and have no comments at this time.
Mr. Tetsuo Harano
Chief, Highways Division
Department of Transportation
State of Hawaii
Honolulu, Hawaii

Dear Mr. Harano:

Subject: Makawao Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments. We would appreciate input relative to your department's proposal for the realignment of Malaekahala Highway and other projects in the area which may affect our alternative sites. A specific school site will be recommended and the environmental impact statement prepared after comments and recommendations are received from the various governmental agencies and community organizations.

We would appreciate your response by July 23, 1976. Please have your staff call Mr. Harold Sonomura of my Planning Branch at 548-5703 if there are any questions.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

HS:jnt
Attachment
Mr. Rikio Nishioka  
Public Works Engineer  
Department of Accounting and  
General Services  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Makawao Intermediate School  
Site Selection  
Reference: Your letter P(1685-6), dated June 25, 1976

Thank you for affording us the opportunity to review the proposed school sites in relation to our highway concerns. None of the alternative sites would be affected by our proposed bypass realignment of Haleakala Highway. We are not contemplating any other improvements in the project area at this time.

We trust that this information answers your request. Please feel free to contact us if you need further information.

Very truly yours,

[Signature]

Chief  
Highways Division

C-23
Dear Dr. Cox:

Subject: Makawao Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments.

A specific site will be recommended for the school and the environmental impact statement prepared after comments on the draft report are received from the various governmental agencies and community groups.

We would appreciate your response by July 23, 1976. Please have your staff call Dr. Harold Sonomura of my Planning Branch at 548-5703 if there are any questions.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

MS:jnt
Attachment
Dear Mr. Nishioka,

Re: Makawao Intermediate School
Draft Site Selection Report.

In response to your request of June 25, 1976 (letter no. (P) 1682.6) for a review of the above cited report, we have solicited the assistance of the following members of the University community: Richard Mayer, Maui Community College, Robert Kerr, Environmental Studies Program, Clifford Smith, Botany Dept., and Jacquelin Miller of the Environmental Center.

In general our reviewers have found the report to be quite complete within the areas addressed, however some additional points should be considered.

Since public schools serve the community in a variety of ways other than their primary function as a daytime educational facility (for example, a meeting place for community organizations; meeting place for groups such as Girl Scouts and Boy Scouts; a recreational facility for sports activities such as Little League Baseball; etc.), we would recommend that such factors be considered under Community Site Criteria. Such factors may enhance the desirability of selecting a site from sites D-J since no school structure presently exists on or as near these sites as is the case for sites A, B, and C.

Is there some type of evaluation criteria relevance factor established to aid in the site selection decision? If such evaluation criteria have not been formally established the site selection should be delayed until adequate evaluating criteria are formulated. All of the criteria established in the report are important for a school site selection but some may be more significant than others. For example, as the report now stands, the aesthetics site characteristic is as important an evaluative criteria as safety (School Site Criteria #3 - Accessibility, Pg. 46) when in fact, safety considerations may be far more significant. Also, there is no indication of how cost considerations will relate in significance to the other criteria.

A factor which seems to have been overlooked in the report is the probabili-
ility that a new high school will almost certainly be needed in this area before 1990. The continued bussing of almost 1,000 students or more by 1990 to Maui H.S. does not seem reasonable as a long term solution. We would suggest that the future High School needs for this area be considered in evaluating intermediate school sites. Perhaps larger sites 35 acres or more, which could serve both Intermediate and High School Complexes may be more appropriate. For example the combination of sites "D" and "E" plus the adjacent existing sports complex would appear to rate highly as a future school site.

Reference is made to the general plans for Pukalani and Makawao. Have these been officially passed by the County Council and accepted by the Mayor?

From the standpoint of evaluating the potential impact on the flora of the area we have noted that all the proposed sites are within highly disturbed areas, hence it would be most unlikely that any rare or endangered plants occur in the areas described.

Perhaps the most serious deficiency which we perceive in this report lies in the apparent omission in the site selection criteria for any input from the community to be served by the new school. For example, such alternatives as the combination of either K-6 and grades 7 & 8 or grades 7 & 8 and 9-12 may or may not be acceptable to the community they are to serve. Bussing of students to certain sites may be less acceptable to the communities involved. Provision should surely be made to solicit, evaluate, and incorporate the communities' wishes into the site selection processes.

We appreciate the opportunity to have reviewed this report and hope you will find our comments useful in arriving at a decision for the proposed school site.

Yours truly,

[Signature]
Doak C. Cox, Director

NOTE: See Review Comments and Responses in Appendix II.
Mr. Toshio Ishikawa  
Director  
Planning Department  
County of Maui  
200 S. High Street  
Wailuku, Maui, Hawaii 95793  

Dear Mr. Ishikawa:  

Subject: Makawao-Pukalani Intermediate School  
Draft Site Selection Report  

Transmitted herewith for your review and comments in a draft copy of the subject report. We would appreciate your comments and recommendations on the alternative sites evaluated in the study. Please note that after comments from the various Federal, State and County agencies and community groups are received, a specific school site will be recommended and the environmental impact statement prepared for the site.  

We would appreciate your response by July 23, 1976. Please have your staff contact Mr. Harold Sonomura of my Planning Branch staff at 540-5703 if there are any questions.  

Very truly yours,  

RIKIO NISHIOKA  
State Public Works Engineer  

MS:dr  
Attachment  

C-27
Mr. Rikio Nishioka  
Public Works Engineer  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu, Hawaii 96810  

Dear Mr. Nishioka:  

Re: Makawao-Pukalani Intermediate School Site Selection Report  

Our office has reviewed the above report relative to the various sites considered in conjunction with the Makawao-Pukalani Intermediate School. We are quite distressed that the site selection report has not concentrated upon the proposed school site adjacent to the Eddie Tam Memorial Gym at Makawao.  

As you may recall, our office and the consultant for the Makawao-Pukalani-Kula General Plan Study did indicate that the future intermediate school facility should be located at the Eddie Tam Memorial Gym area. As such, the said General Plan does indicate the location of such a school facility. In this respect we feel that any other site would not be appropriate and that amendment to the General Plan would be necessary.  

As you know, the County of Maui does have various public facilities at the Eddie Tam Memorial Gym Complex including the Gymnasium, ball fields, and tennis courts. Rightfully so, it would seem appropriate that any other new public facility should also be located nearby.  

We hope that final evaluation and recommendation would strongly provide for the Eddie Tam Memorial Gym site to be selected for the Makawao-Pukalani Intermediate School.  

Yours very truly,  

TOSH ISHIKAWA  
Planning Director  

C-28
Mr. Toshio Ishikawa
Director
Planning Department
County of Maui
200 S. High Street
Wailuku, Maui, Hawaii 96793

Dear Mr. Ishikawa:

Subject: Draft Site Selection Report for Makawao-Pukalani Intermediate School

Thank you for your July 7, 1976 comments on the subject document. The following responses are made to your concerns:

1. Concentration on Eddie Tam Site - The draft site selection study which evaluates alternative sites was prepared as objectively as possible to meet the requirements of the Environmental Impact Statement Regulations and to ensure that the final selection is based on the specific merits of each site.

2. General Plan - The following statement was extracted from page 115 of the Makawao-Pukalani-Kula General Plan report:

"The General Plan should concentrate on overall policy for the area, limiting itself to issues affecting the development of the entire area and should avoid excessive detail. As a plan dealing with general planning policies that relate to the whole County, it should concentrate more on the written statement of the policy than the precise mapping of the policy. The mapping should indicate the general regions where certain types of land activities are to take place. The policies should state what is intended for those regions. Then zoning and capital programs should be administered in line with those policies as the demand is created."

C-29
Page 40 of the same report states: "The County Interim Zoning applies to all those sections of Maui County for which a comprehensive zoning map has not yet been adopted and which are designated 'urban' by the State including those areas in Makawao and Kula. The interim zoning requires 'no land or building shall be used and no building shall be erected or structurally altered or maintained except for one or more of the following uses': -- elementary schools, intermediate schools, high schools, -- .

Page 85 of the same report states: "Makawao Intermediate will be developed sometime in the 1980's when there are approximately 400 students in the seventh and eighth grades in the Pukalani/Makawao area according to the Department of Education. The main site considered for the new school is just below the Mayor Tam Memorial Park. The Makawao PTA has supported this 9.0-acre site."

Based on the above statements, it does not appear that a General Plan amendment is required if the site selected is in one of the "Country Town" areas indicated in the General Plan. We would appreciate a ruling from the County Attorney's Office on this matter. The appropriateness of the school site selected should be determined by the site selection and environmental impact statement process and not only by its designation on the General Plan.

3. **Eddie Tam Complex** - The County Department of Parks and Recreation has indicated that a school-park complex at Makawao or Pukalani would be acceptable. The school-park complexes are rated higher than a regular school as noted in the site selection report and environmental impact statement because they facilitate sharing of facilities and less government expenditures.

4. **Recommendation for Eddie Tam Site** - Your recommendation for Site D adjacent to Eddie Tam Center will be considered in the final evaluation and recommendation of the proposed school site.
Additional comments provided for your information are:

(1) The minimum acreage standard for the proposed school has been reduced by the Department of Education to 6½ acres for Sites B and D (school-park sites) and to 8 acres for the other alternative sites (school only).

(2) Our current procedure is to combine the draft site study and draft environmental impact statement in one document to permit a more comprehensive review and also to expedite the preparation, review, and completion of the project. Therefore, our response to your July 7, 1976 comments on the draft site selection report was withheld until the draft environmental impact statement was also prepared and circulated for review.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

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

Dear Mr. Nishioka:

Re: Draft Site Selection Report for Makawao-Pukalani Intermediate School

This will acknowledge receipt of your letter dated April 1, 1977, responding to our letter of July 7, 1976 on the above matter.

Please be advised that we concur with the concerns expressed in Mayor Cravalho's communication to Mr. Hideo Murakami, State Comptroller, dated February 14, 1977.

Should you have any questions, please contact my office.

Yours very truly,

TOSH ISHIKAWA  
Planning Director

NOTE: Refer to Appendix II for Mayor Cravalho's letter of February 14, 1977.
MRS. ALI LEPITAN

DIRECTOR

DEPT. DEPARTMENT

COUNTY OF HAWAI'I

O'AHU HIGH SCHOOL

MAIL: HONOLULU, HAWAII 96793

SUN, JULY 25, 1976

SUBJECT: MAKAWAO-PUKALANI INTERMEDIATE SCHOOL

DRAFT SITE SELECTION REPORT

Enclosed herewith is a draft copy of the subject report for your review and comments relative to the alternative sites being considered for the school and their effect on existing parks at Makawao and Pukalani. A specific school site will be recommended and the environmental impact statements prepared after comments from the various governmental agencies and community groups are received.

We would appreciate your response by July 23, 1976. Please have your staff contact Mr. Harold Shenura of my Planning Branch staff at 545-5703 if there are any questions.

Very truly yours,

RICKO NISHIKAWA

STATE PUBLIC WORKS ENGINEER

SUB: Draft Attachment

CC: Mr. Tomio Ishikawa (letter only)

C-33
Subject: Makaha-Palolo Intermediate School
Draft Site Selection Report

This is to follow up on our June 23, 1976 letter transmitting a copy of the subject report for your review and comments. We are proceeding with the Environmental Impact Statement for the project and would appreciate your comments on the following specific items contained in the draft report:

1. The acceptability of a joint school-park complex with the 13-acre DiLiaa Teen Center facilities (Alternative Site B) where the proposed school would have priority use of park facilities during school hours.

2. The acceptability of a joint school-park complex with the Kapiolani Park facilities (Alternative Site E) where the proposed school would have priority use of park facilities during school hours. Approximately nine (9) acres of the existing 35-acre complex will be required for the proposed intermediate school.

3. The possibility of the County developing a school-park complex at one of the other alternative sites (A, C, D, F, G, H, I, and J) evaluated in the study.

Mrs. Jan Depitan
Director
Parks Department
County of Hawaii
200 M. High Street
Honolulu, Oahu, Hawaii 96723

Dear Mrs. Depitan:

C-34
Your comments on the report by December 3, 1976 will be greatly appreciated. Please have your staff contact Mr. Harold Sonomura of my Planning Branch staff at 548-5703 if there are any questions.

Very truly yours,

RIKIO NISHIoka
State Public Works Engineer

cc: Mayor Cravalho
December 21, 1976

Mr. Harold Sonomura
Planning Branch
Department of Accounting
and General Services
State of Hawaii
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Sonomura:

Subject: Makawao-Pukalani Intermediate School Draft Site Selection Report

Generally, joint use arrangements for school-park complexes at Pukalani or Makawao would be acceptable. The agreement should be understood to include:

a. Priority use of the park by the school during school hours
b. Use of school facilities by parks programs
c. Use of facilities to be scheduled between the parties

The school-park complex on the other alternative sites are not being considered by this department at the present time.

We would like to participate in any further developments on the joint use agreement.

Very truly yours,

JAN DAPITAN, Director

cc: Planning Dept.
Mr. Louis Hao  
Director  
Department of Parks and Recreation  
County of Maui  
Wailuku, Maui, Hawaii 96793

Dear Mr. Hao:

Subject: Draft Site Selection Report  
Makawao-Pukalani Intermediate School

Thank you for your December 21, 1976 comments on the subject report. We will proceed with our site evaluation on the basis that a school-park complex would be acceptable at Pukalani (Site B) or Makawao (Site D).

Please be assured that we will contact your office on the development of a joint-use agreement with the DOE if one of the two sites is selected for the proposed school.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

HS: nk 4-4
Dear Sir or Madam,

We are aware that you have been associated with the General Electric Corporation for some time now. We hope you will continue to be as satisfied with our service as you have been in the past.

This letter is to inform you of the new terms and conditions under which we will be supplying our products to you from now on. The new terms will come into effect from the 1st of January 1979.

Attached to this letter is a copy of the new terms and conditions. Please review them carefully and let us know if you have any questions or concerns.

Attachments:

1. New Terms and Conditions

Sincerely yours,

[Signature]

[Company Name]
Mr. Wayne Uemae
Director
Department of Public Works
County of Maui
260 S. High St.
Wailuku, Maui, Hawaii 96793

Nov. 9, 1976

Dear Mr. Uemae:

Subject: Kakawao-Pukalani Intermediate School
Draft Site Selection Report

This is to follow up on our June 25, 1976 letter transmitting a copy of the project report for your review and comments. We are preparing with the Environmental Impact Statement for the project and would appreciate your comments relative to the following specific items within your jurisdiction:

1. The scope of the proposed roadway and drainage improvements for each alternative site as detailed in the cost computations (Appendix D) of the report.

2. The need to widen both Uhiu and Kaha Roads for the development of Alternative Sites A or D in Kakawao.

3. Development plans by the County or others which may affect the alternative sites being evaluated for the school scheduled to open sometime between 1983-85.

Your response to our inquiry by December 3, 1976 will be appreciated. Please have your staff contact Mr. Harold Sonomura of my Planning Branch staff at 943-5703 if there are any questions.

Very truly yours,

RIKIO HISHIYAMA
State Public Works Engineer

cc: Mayor Cravalho

(514)
Mr. Wayne Uemae
Director
Department of Public Works
County of Maui
Wailuku, Maui, Hawaii

Dear Mr. Uemae:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

This is to follow-up on our June 25, 1976, November 19, 1976 and January 28, 1977 requests for your review and comments on the subject project. Your comments on the proposed on and off-site improvements for the development of each alternative site evaluated in the report are desired before a specific school site is recommended.

We would especially appreciate your response on the need to improve Maha and/or Ukiu Roads from their existing 20-foot right-of-way to a minimum 44-foot right-of-way roadway if Site A or D is selected as shown on Exhibit "A".

We also request your comments on the proposed alternate access road to Site D from Makani Road as shown on Exhibit "B". Please note that the acreage required for the school has been reduced by the Department of Education to 6½ acres for Sites B and D and to 8 acres for the other alternative sites.

Your review and comments on any other proposed improvements at the alternative sites as they relate to your jurisdiction are also requested. We believe that a thorough review of the

NOTE: DAGS January 28, 1977 letter is included in Appendix II.
proposed off-site improvements at this time will minimize access and drainage concerns similar to those raised during the design of the New Kihei School.

Your early response to our concerns will be appreciated. If there are any questions, please have your staff contact Mr. Harold Sonomura of my Planning Branch staff at 548-5703.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

HS:iy
Mr. Shigeto Murayama

Director

Department of Water Supply

County of Maui

200 "A" Street

Maui, Maui, Hawaii 96703

Dear Mr. Murayama:

Subject: Makawao-Pukalani Intermediate School

Draft Site Selection Report

Transmitted herewith is a draft copy of the subject report for your review and comments relative to the existing and proposed water supply system improvements for each alternative site under consideration. A specific school site will be recommended and the environmental impact statement prepared after comments are received from the various governmental agencies and community groups.

We would appreciate your response by July 22, 1976. Please have your staff contact Mr. Harold Sonchana of my Planning Branch staff at 548-5763 if there are any questions.

Very truly yours,

RYKIO WASHIOKA

State Public Works Engineer

Mr. Murayama

Attachment

cc: Mr. Toshio Ishikawa (Letter only)
Mr. Shigeto Murayama
Director
Department of Water Supply
County of Maui
200 S. Kihei Road
Wailuku, Maui, Hawaii 96793

Subject: Makawao-Fukalani Intermediate School Draft Site Selection Report

This is to follow-up on our June 25, 1976 letter transmitting a copy of the subject report for your review and comments. We are proceeding with the Environmental Impact Statement for this project and would appreciate your review and comments on the proposed scope of improvements to the water system for the development of each alternative site. We would also like to know of your department's plans for improvements to the up-country water system which may affect the alternative sites by the scheduled 1983-85 school opening date.

We would appreciate your response by December 3, 1976. Please have your staff contact Mr. Harold Sonomura of my Planning Branch at 548-3703 if there are any questions.

Very truly yours,

RIKIO HISHIOMA
State Public Works Engineer

Enc

cc: Mayor Cravalho (letter only)
Mr. Rick Yasui  
Director  
Department of Economic  
Development  
County of Maui  
160 S. High Street  
Wailuku, Maui, Hawaii 96793

Dear Mr. Yasui:

Subject: Makawao-Pukalani Intermediate School  
Draft Site Selection Report

Transmitted herewith for your review and comments is a draft copy of the subject report. We would appreciate your comments and recommendations on the alternative sites evaluated in the study. Please note that after comments from the various Federal, State and County agencies and community groups are received, a specific school site will be recommended and the environmental impact statement prepared for the site.

We would appreciate your response by July 23, 1976. Please have your staff contact Mr. Harold Schomura of my Planning Branch staff at 548-5703 if there are any questions.

Very truly yours,

RIKIO HISHICHI
State Public Works Engineer

MS:Gl  
Attachment

Jun 25 1976
Mr. Rick Yasui  
Director  
Department of Economic Development  
County of Maui  
203 S. High Street  
Wailuku, Maui, Hawaii  

Dear Mr. Yasui:  

Subject: Kalawao-Sukalani Intermediate School  
Draft Site Selection Report  

This is to follow up on our June 25, 1976 letter to you requesting comments on the subject project. We are proceeding with the environmental impact statement for the project and would appreciate your comments on the report by November 3, 1976. Please have your staff contact Mr. Harold Conner of my Planning Branch at 543-3703 if there are any questions.  

Very truly yours,  

RIKIO MIYASHINA  
State Public Works Engineer  

Ms:iy  
Attachment  
cc: Mayor Cravalho (letter only)
Maui District School
Advisory Council
P. O. Box 1070
Wailuku, Maui, Hawaii 96793

Gentlemen:

Subject: Makawao-Pukalani Intermediate School
Draft Site Selection Report

Enclosed herewith for your review and comments is a copy of the subject report. We are presently soliciting comments from the various governmental agencies and community groups on the draft report. After these comments are received, a specific site will be recommended and the environmental impact statement prepared.

We would appreciate your response by July 25, 1975. If there are any questions, please contact Mr. Harold Sonomura of my Planning Branch staff at 548-6703 or refer your questions through Mr. Harrell Oishi, Maui District Superintendent, DG3.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

cc: Mr. D. Oishi (letter only)

C-48
Mr. Rikio Mishiooka  
State Public Works Engineer  
Department of Accounting & General Services  
Division of Public Works  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Mishiooka:

Subject: Makawao-Pukalani Intermediate School  
Draft Site Selection Report


At this meeting, I first realized, I was the only SAC member that had the opportunity to preview your draft report prior to the meeting. Both of the council members present at the meeting did not receive the report and said it was difficult to make any decision not knowing what the report contained. Furthermore, two other SAC members were absent. They should participate in the final decision on the site selection were the desire of SAC members present.

Although realizing the importance of your request for a response by July 23rd, it was felt we should defer this matter till our August regular meeting so the council members will have had the opportunity to preview your draft report by the next meeting to recommend a site.

I would like to note: As I recall prior to your new draft report, this council at the January 19, 1976 meeting at Kula Elementary School, after hearing the rationale for a proposed intermediate school presented by the Maui District staff, action was taken to recommend to our Maui District Superintendent that the State acquire the land adjacent to the Mayor Eddie Tam Iskawao Recreation Center for the proposed Makawao-Pukalani Intermediate School site. This site is Site "D" in your new draft report. Whether this council will be consistent on the site selection will tell at our August meeting.

Yours very truly,

Yukio Katsunoto  
Chairman

cc: Mr. D. Oishi  
SAC members  
Student Rep.
Mr. Rikio Nishioka  
State Public Works Engineer  
Department of Accounting & General Services  
Division of Public Works  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Makawao-Pukalani Intermediate School Draft Site Selection Report

This is a follow up report on the Makawao Intermediate school site study report which I had responded earlier to you in my letter of July 21, 1976.

Due to cancellation of our regular Maui District School Advisory Council monthly meetings since July 12, this report on the above subject from the Maui SAC has delayed till now.

On September 20, 1976 we were able to meet, and the subject of the school site selection report were discussed, with the following action taken by the council:

"To reaffirm the action taken at the January 19, 1976 SAC meeting that we recommend the State acquire the land adjacent to the Mayor Eddie Tam Memorial Recreation Center for the proposed Makawao Intermediate School Site, this is identical to Site "D" in the new site selection study report."

For the record I am making this report to you, although it is quite belated, the desire and action taken by the Maui SAC regarding your Makawao Intermediate school site selection draft report. We are recommending that Site "D" in your report be selected.

Yours very truly,

Yukio Matsumoto  
Chairman

cc: SAC members  
Mr. D.Oishi
Mr. Yukio Matsumoto  
Chairman  
Maui District School  
Advisory Council  
P. O. Box 1070  
Wailuku, Maui, Hawaii 96793

Dear Mr. Matsumoto:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your letters of July 21, 1976 and September 26, 1976 on the subject report. The Maui School Advisory Council's recommendation that Site D be selected for the proposed intermediate school will be considered in the final evaluation and recommendation of the school site. The following comments are provided for your information:

1. The acreage for the proposed school site has been reduced by the Department of Education to 6-1/2 acres for Sites B and D (school-park sites) and to 8 acres for the other alternative sites (school only).

2. Our current procedure is to combine the draft site selection and draft environmental impact statement in one document to permit a more comprehensive review and also to expedite the preparation, review, and completion of the project. Our response to your comments on the draft site selection report was therefore withheld until the draft environmental impact statement was also prepared and circulated for review.

3. After the environmental impact statement is completed and a site is selected, the next three critical steps in development of the school are:
a. Assignment of a high Capital Improvement Program priority by Maui District for the land acquisition.

b. Assignment of this project within the Department of Education's Expenditure Plan.

c. Appropriation of land acquisition funds.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer
Mukauo P.T.A.
c/o Mukauo School
P. O. Box 408
Mukauo, Maui, Hawaii 96768

Gentlemen:

Subject: Mukauo-Pukalani Intermediate School Draft Site Selection Report

Transmitted herewith for your review and comments is a copy of the subject report. We are presently soliciting comments from the various governmental agencies and community groups on the draft report. After these comments are received, a specific site will be recommended and the environmental impact statement prepared.

We would appreciate your response by July 23, 1976. If there are any questions, please contact Mr. Harold Sencura of my Planning Branch staff at 548-5703 or refer your questions through Mr. Durrell Oishi, Maui District Superintendent, DOE.

Very truly yours,

RIKIO NISHIoka
State Public Works Engineer

RG:dr
Attachment
cc: Mr. D. Oishi (letter only)
Dear Mr. Nishio:

In regard to your letter of June 25, 1976, concerning the Makawao-Pukalani Inter-mediate School Draft Site selection report, Makawao P.T.A. is decided in favor of the Eddie Tam Site. We feel that the adjacent athletic facilities at Eddie Tam Park make it a natural selection.

Yours truly,

Janice Kinoshita
Makawao P.T.A. Pres.
Ms. Janis Kinoshita  
President  
Makawao School PTA  
P. O. Box 398  
Makawao, Maui, Hawaii 96768  

Dear Ms. Kinoshita:

Subject: Draft Site Selection Report  
Makawao-Pukalani Intermediate School  

Thank you for your letter of July 15, 1976 on the subject report. The PTA’s support for Alternative Site D will be considered in the final evaluation and recommendation of the proposed intermediate school site. The following comments are provided for your information:

1. The acreage for the proposed school site has been reduced by the Department of Education to 6-1/2 acres for Sites B and D (school-park sites) and to 8 acres for the other alternative sites (school only).

2. Our current procedure is to combine the draft site selection and draft environmental impact statement in one document to permit a more comprehensive review and also to expedite the preparation, review, and completion of the project. Our response to your comments on the draft site selection report was therefore withheld until the draft environmental impact statement was also prepared and circulated for review.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer
Full School P.T.A.
q/s Kula Elementary School
P. O. Box 77
Kula, Maui, Hawaii 96720

Gentlemen:

Subject: Nakawao-Pukalani Intermediate School
Draft Site Selection Report

Transmitted herewith for your review and comments is a
copy of the subject report. We are presently soliciting com-
nents from the various governmental agencies and community
groups on the draft report. After these comments are received,
a specific site will be recommended and the environmental impact
statement prepared.

We would appreciate your response by July 23, 1976. If there
are any questions, please contact Mr. Haruo Sakanoue of my Plan-
ing Branch staff at 533-5703 or refer your questions through
Mr. Kuruhi Oishi, Maui District Superintendent, DOE.

Very truly yours,

RIKIO KITAI
State Public Works Engineer

HS: Mr
Attachment
cc: Mr. D. Oishi (letter only)

C-56
Makaha Community Association
P. O. Box 106
Makaha, Oahu, Hawaii 96786

Gentlemen,

Subject: Makaha-Pukalani Intermediate School
Draft Site Selection Report

Transmitted herewith for your review and comments is a
copy of the subject report. We are presently soliciting com-
ments from the various governmental agencies and community
groups on the draft report. After these comments are received,
a specific site will be recommended and the environmental impact
statement prepared.

We would appreciate your response by July 23, 1976. If there
are any questions, please contact Mr. Harold Somauna of my Plan-
ing Branch staff at 548-5703 or refer your questions through
Mr. Darrell Oishi, Maui District Superintendent, DOE.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

19-0r
Attachment
cc: Mr. C. Oishi (letter only)
Hawaiian Telephone Company  
P.O. Box 2200  
Honolulu, Hawaii  96805  

Attention: Mr. Richard Mau  

Gentlemen:  

Subject: Masuno-Pukulani Intermediate School  
Draft Site Selection Report  

Transmitted herewith is a copy of the subject report for your review and comments regarding utility services to each of the alternative sites under consideration for the proposed school. A specific site will be recommended and the environmental impact statement prepared after comments from the various governmental agencies and community groups are received.  

We would appreciate your response by July 23, 1978. If you have any questions, please contact Mr. Harold Sonomura of my Planning Branch staff at 546-5703.  

Very truly yours,  

RIPIO NISHIOKA  
State Public Works Engineer  

P.S.: Mr.  
Attachment.
Mr. Rikio Nishioka  
STATE OF HAWAII  
Dept. of Accounting & General Services  
Division of Public Works  
P.O. Box 119  
Honolulu, HI 96810

SUBJECT: Makawao - Pukalani Intermediate School  
Draft Site Selection Report.

Dear Sir:

In response to your letter No. (P) 1708.6 dated July 25, 1976, we see no objections or have any comments concerning the site location for the above subject.

[Signature]

for: L. WADA  
Engineering & Construction Manager - Maui  

JP/do
Hawaiian Electric Company, Inc.
210 Ka Moana Avenue
Kahului, Maui, Hawaii 96732

Gentlemen:

Subject: Makawao-Molii Intermediate School
Draft Site Selection Report

Transmitted herewith is a copy of the subject report for your review and comments regarding utility services in each of the alternative sites under consideration for the proposed school. A specific site will be recommended and the environmental impact statement prepared after comments from the various governmental agencies and community groups are received.

We would appreciate your response by July 23, 1973. If you have any questions, please contact Mr. Harold Soneva, of my Planning Branch staff at 518-5703.

Very truly yours,

RIKIO NISHIMURA
State Public Works Engineer

Ms/Dr.
Accompanant
February 2, 1977

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
State of Hawaii
Box 119
Honolulu, Hawaii 96810

Attention: Mr. Hideo Murakami, State Comptroller

Subject: Makawao-Pukalani Intermediate School Site Selection Study

We have reviewed subject study dated December 1976. As far as Maui Electric's facilities are concerned it appears only site "J" will require a line extension to provide electric service.

T. M. SATO
Manager, Engineering

PNO/bb
Mr. T. M. Sato  
Manager, Engineering  
Maui Electric Company, Ltd.  
210 Kamehameha Avenue  
Kahului, Maui, Hawaii 96732

Dear Mr. Sato:

Subject: Draft Site Selection Study and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 2, 1977 response on the subject document. We will revise our report to indicate that only Site "J" will require an extension of electrical service. The proposed extension of electrical service to Alternative Sites "D" and "D" will be deleted.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer
APPENDIX D
ENVIRONMENTAL IMPACT STATEMENT

SUMMARY

The Makawao-Pukalani-Kula Intermediate School project consists of the selection of the most suitable site within the "Up-Country" Maui area for a new school. The school is tentatively planned to encompass about 6.5 to 9 acres of land and will provide classrooms, support facilities, and playground areas for a design enrollment of 500, grades 7-8 students. The EIS discusses the environmental effects of the ten (10) alternative sites which were considered in the Site Selection Report.

The school development will serve the projected population growth in Up-Country Maui caused by new housing developments. The proposed school may encourage additional residential developments by providing adequate public educational facilities conveniently located in the Up-Country Maui area. The new school is not expected to affect the existing Makawao, Pukalani, and Kula Elementary Schools which will continue to serve the K-6 students from the respective communities.

The environmental effects of the proposed school development are not considered to be major and will be minimized by enforcement of adequate pollution control measures. The alternative sites will be reviewed by affected government agencies, individuals and community groups to resolve any environmental concerns before a specific school site is recommended.
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<td>1970 Up-Country Age Characteristics</td>
<td>D-7</td>
</tr>
<tr>
<td>2</td>
<td>Class of Worker 1960 and 1970</td>
<td>D-9</td>
</tr>
<tr>
<td>3</td>
<td>Type of Family Income 1969</td>
<td>D-9</td>
</tr>
<tr>
<td>4</td>
<td>Conformance with Land Use Controls</td>
<td>D-10</td>
</tr>
<tr>
<td>5</td>
<td>Estimated Acreage of State Land Use Districts June 1974</td>
<td>D-11</td>
</tr>
</tbody>
</table>
DESCRIPTION OF PROJECT AND SITE SELECTION PROCEDURE

This project consists of selecting a 6.5 to 9-acre site for the proposed Makawao-Pukalani-Kula Intermediate School on the Island of Maui. The project location and service area for the school are shown on Exhibits A and B, respectively. The service area was established by the Department of Education to delineate the geographic boundaries for students who will be attending the new school and to define the limits within which the school site must be located. The details of the project scope, need, student enrollment, and location are contained in Chapter 1 of the Site Selection Report to which this EIS is appended.

Chapters 2 and 3 of the Site Selection Report describe the methods used in selecting the ten (10) alternative sites shown in Exhibit C and also provide specific details on each site. Each of the ten (10) alternative sites were then evaluated against the evaluation criteria contained in Appendix A and the results tabulated and summarized in Chapter 4 of the report. The comparative cost data for developing each alternative site for a school was also computed in Chapter 4.

The Draft Site Selection Report and EIS were circulated to various governmental agencies, community organizations, and concerned individuals to solicit their comments during the EIS consultation phase. The Draft Site Selection Report and EIS was then revised to incorporate the review comments and to resolve the environmental, social, and technical concerns raised. The Site Selection Report and EIS circulated by the Environmental Quality Commission for public review in accordance with established procedures.

The Site Selection Report and EIS will be finalized after the public review process is completed and will be submitted to the Governor for his approval of the recommended school site. The land acquisition, planning, and construction phases will commence in sequence after receipt of the Governor's concurrence.

DESCRIPTION OF ENVIRONMENTAL SETTING

The school service boundary shown on Exhibit B encompasses the area from Kokomo on the north to Ulupalakua on the south and the area above the 800-foot elevation on the western slope of Haleakala mountain. This service area consists predominantly of agricultural zoned lands which are used for pineapple cultivation, truck farming, and grazing. The
major roadways which traverse the service area are Haleakala Highway, Makawao Avenue, and Lower and Upper Kula Roads. There are scattered residential developments along these major roadways. However, the bulk of the Up-Country population is concentrated in the three main communities of Makawao, Pukalani, and Kula.

The Up-Country area has been gradually changing over the past 15 years from a rural ranching and farming community to one where an increasing number of residential subdivisions are being developed. A combination of the decline in sugar and pineapple employment and an increase in employment by the visitor and related industries on Maui island has brought about a shift in population away from traditional plantation camps to new urban and suburban communities. This changing nature of the Maui economy is indicated by the 30.1% and 30.2% decrease in employment in sugar and pineapple, respectively, between 1965 and 1972 as contrasted with an estimated 126.5% increase in retail employees in the same period. 1/

The age characteristics data for the communities of Makawao, Pukalani, and Kula in Table 1 shows that:

1. Kula has a larger proportion of residents, 65 years and over than Makawao or Pukalani.

2. Pukalani has the highest proportion of residents under 18 years and the lowest proportion of residents over 65 years.

| TABLE 1 |
| 1970 UP-COUNTRY AGE CHARACTERISTICS a/ |
| Makawao Village | Pukalani Village | Kula Division |
| Total | % Total | Total | % Total | Total | % Total |
| Under 18 yrs. | 360 | 33.8 | 631 | 38.7 | 668 | 31.5 |
| 65 yrs. & Over | 125 | 11.7 | 117 | 7.2 | 323 | 15.2 |


The above statistics also support the DOE's enrollment projections which anticipates future student growth to be from the younger Pukalani community. In terms of occupation and income levels, the statistics in Tables 2 and 3 show:

1. The shift in occupations has been away from agriculture

1/ Makawao-Pukalani-Kula General Plan, County of Maui.
and towards service and professional/technical categories, particularly in the Makawao Division.

2. Farming remained the predominant occupation in the Kula Division. However, a shift toward professional and service categories is noted.

3. Makawao and Kula residents derived their income primarily from wages and salaries.

4. Kula had a higher mean income level than Makawao-Pukalani.

5. Both Makawao and Kula had a high percentage of people receiving Social Security which indicates a corresponding high number of retirees.

The Up-Country area has a sweeping view of Central Maui and the West Maui mountains as well as a large portion of the islands north and south coastline. The rainfall in Pukalani and Kula is fairly light, ranging between 20 to 40 inches annually. The amount of rainfall increases northeastward towards Makawao and Kokomo to approximately 50 and 100 inches annually as shown on the rainfall map (Figure 27) of the Site Selection Report. The climate is mild and is characterized by warm days and cool nights which are conducive for both farming and residential purposes. The Kula area is well known statewide for its production of quality vegetables such as onion and cabbage as well as for its cut flowers. 2/

The Makawao-Pukalani-Kula General Plan which was recently completed and adopted by Maui County has recognized the development trend of the Up-Country area and sets forth land use policies for the preservation of the "country atmosphere". The plan calls for major new population growth to be centralized in the "Country Towns" of Makawao, Pukalani, and Kula in lieu of the current random development pattern throughout the area.

In addition, Maui County has recognized the importance of preserving agricultural lands in the Up-Country area. The General Plan therefore designates a large, select area in Kula for prime diversified agriculture. Plans for the Kula Agricultural Park have already been initiated by Maui County.

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

The existing and proposed State and County land use plans provide for residential growth in the Up-Country Maui area.

### TABLE 2
CLASS OF WORKER 1960 and 1970

<table>
<thead>
<tr>
<th></th>
<th>Makawao Division</th>
<th>Kula Division</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1960%</td>
<td>1970%</td>
</tr>
<tr>
<td>Private Wage &amp; Salary</td>
<td>85.1</td>
<td>72.9</td>
</tr>
<tr>
<td>Government</td>
<td>8.3</td>
<td>23.0</td>
</tr>
<tr>
<td>Self-Employed</td>
<td>5.7</td>
<td>3.5</td>
</tr>
<tr>
<td>Unpaid</td>
<td>0.9</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*b/ Includes Paia.

### TABLE 3
TYPE OF FAMILY INCOME 1969

<table>
<thead>
<tr>
<th></th>
<th>Makawao-Pukalani</th>
<th>Kula</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Total</td>
<td>Mean Income</td>
</tr>
<tr>
<td>Wage or Salary</td>
<td>91.2</td>
<td>$9,386</td>
</tr>
<tr>
<td>Non-Farm Self-Employed</td>
<td>4.8</td>
<td>$7,440</td>
</tr>
<tr>
<td>Farm Self-Employed</td>
<td>3.3</td>
<td>$1,911</td>
</tr>
<tr>
<td>Social Security</td>
<td>21.9</td>
<td>$1,528</td>
</tr>
<tr>
<td>Public Assistance or Welfare</td>
<td>2.6</td>
<td>$554</td>
</tr>
<tr>
<td>Other</td>
<td>55.7</td>
<td>$954</td>
</tr>
</tbody>
</table>

*b/ Includes Paia. 
*c/ Percentages do not add to 100% due to more than one income source per family.
Accordingly, the need for the new school is projected based upon the potential for additional housing units within the school service area.

The shift in the island's economy from an agricultural base towards visitor oriented industries and services has created a corresponding change in employment patterns. The phasing out of the plantation villages and camps has caused workers to migrate to new residential subdivisions and to commute to their employment centers. This trend, together with the increase in the island population, provides for future growth of the Up-Country area. The Up-Country area is highly desirable as a residential area because of its mild climate and rural or country atmosphere.

The alternative sites being considered for the new school were carefully evaluated with respect to the existing land use plans to maximize their compatibility with the environment. For example, all of the sites were selected within or adjacent to urban-zoned lands to avoid the creation of non-contiguous spot zoning conditions. The alternative sites were then individually evaluated against the State Land Use, County General Plan, and County Zoning criteria in the Site Selection Report. The results of this evaluation have shown that not all of the sites were suitable for school development without amendments or variances from the existing land use controls in effect. The alternative sites and their conformance or non-conformance with the existing land use controls were extracted from the Site Selection Report and listed in Table 4.

<table>
<thead>
<tr>
<th>Site</th>
<th>SLU</th>
<th>General Plan</th>
<th>Zoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Conforms</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>B</td>
<td>Conforms</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>C</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>D</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>E</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>F</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>G</td>
<td>Non-Conformance</td>
<td>Non-Conformance</td>
<td>Conforms</td>
</tr>
<tr>
<td>H</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>I</td>
<td>Non-Conformance</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
<tr>
<td>J</td>
<td>Conforms</td>
<td>Conforms</td>
<td>Conforms</td>
</tr>
</tbody>
</table>

Based on Table 4, only Alternative Sites A, B, and J will not require amendments to the State Land Use District Boundary if they are developed for the new school. Alternative Site G is not located within the "Country Town" limits of either Makawao, Pukalani or Kula and will therefore require a General Plan change by the County.
The alternative Sites C, D, E, F, G, H, and I are within the State Land Use Agriculture District. Since these sites will require an amendment to the land use district boundary, the State could deny any reclassification action and retain the lands in the agriculture district. In terms of agricultural productivity, all of the foregoing sites except Site C are rated 'C' which indicates average agricultural productivity. Site C is rated as having a 'D' or below average productivity.

The impact of developing one of the alternative sites will be minimal, since the school will remove only 9 acres of agricultural land. The development of the school, however, may result in secondary impacts on agricultural lands by encouraging additional housing developments in the surrounding area. It should be noted that Sites A and B are within the urban district and will not have a significant impact on agriculture.

The estimated acreages for urban, rural and agricultural State Land Use Districts for the school service area are provided in Table 5. It can be seen from the data that:

1. Pukalani has the largest potential for urban development.

2. Kula has the largest acreage within the rural and agricultural district of the three communities.

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Agricultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makawao-Kokomo</td>
<td>540</td>
<td>70</td>
<td>5,700</td>
</tr>
<tr>
<td>Pukalani</td>
<td>1,050</td>
<td>307</td>
<td>740</td>
</tr>
<tr>
<td>Kula</td>
<td>345</td>
<td>1,735</td>
<td>29,500</td>
</tr>
</tbody>
</table>

a/ Source: County of Maui, 1972 Land Use Inventory.

Accordingly, the significance of the land use controls for the Up-Country area will be an important consideration in the final selection of the proposed school site.

PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

A. Technical

The scope of the project consists of acquiring approximately 6.5-9 acres of land and constructing and operat-
ing an intermediate school on the site. For the projected design enrollment of 500 students, the Makawao-Pukalani Intermediate School will require the following facilities in accordance with the DOE's 1974 "Educational Specifications, Policies, and Design Standards for the Public Schools of Hawaii":

<table>
<thead>
<tr>
<th>Facility</th>
<th>Square Feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>3,800 s.f.</td>
</tr>
<tr>
<td>Library</td>
<td>6,500 s.f.</td>
</tr>
<tr>
<td>Kitchen</td>
<td>2,180 s.f.</td>
</tr>
<tr>
<td>Multi-Purpose Dining</td>
<td>3,713 s.f.</td>
</tr>
<tr>
<td>P.E. Locker/Shower</td>
<td>4,720 s.f.</td>
</tr>
<tr>
<td>Classrooms</td>
<td>(12) 960 s.f. Regular</td>
</tr>
<tr>
<td></td>
<td>(1) 960 s.f. Special Education</td>
</tr>
<tr>
<td></td>
<td>(1) 1,920 s.f. Art</td>
</tr>
<tr>
<td></td>
<td>(1) 2,850 s.f. Music</td>
</tr>
<tr>
<td></td>
<td>(2) 1,600 s.f. Science</td>
</tr>
<tr>
<td></td>
<td>(1) 1,800 s.f. Homemaking</td>
</tr>
<tr>
<td></td>
<td>(1) 3,200 s.f. General Shop</td>
</tr>
<tr>
<td></td>
<td>(1) 1,530 s.f. Typing</td>
</tr>
<tr>
<td>Parking</td>
<td>20 Stalls (County Ordinance)</td>
</tr>
<tr>
<td>Playground, Paved Courts &amp; Apparatus</td>
<td>165,050 s.f.</td>
</tr>
</tbody>
</table>

Construction of the school will alter the conditions of the selected site through: (1) clearing and grading, (2) installing the necessary access roads and utilities such as water, sewer, drainage, and electrical systems, and (3) constructing the school buildings and play facilities. This proposed construction may have some positive and negative secondary effects on the properties adjacent to the school site. These effects are as follows:

1. The school will generate additional vehicular and pedestrian traffic. However, the extension or widening of existing roads should correspondingly improve access to adjacent properties.

2. Extension of utilities to the school site may increase the development potential of some abutting properties which can also be serviced by the same utility improvements.

3. Establishment and operation of the school may be acceptable to nearby stores and residents with school-age children. Conversely, some nearby businesses and residents may object to a school on the grounds that the school children may disturb the residents or restrict certain types of business activities near the school.

4. The school development may raise the surrounding property values or may restrict the future development potential of adjacent properties.
B. Economic

The school development may have some impact on the growth of the Up-Country area by providing additional public service capability. The existing Makawao and Kula Elementary Schools serving this area will be reorganized from grades K-8 to grades K-6. The proposed school will consolidate the intermediate students from this area in a new school and allow for future enrollment increases in Makawao and Kula Elementary Schools.

The comparative development costs for the alternative sites were computed in Appendix B of the Site Selection Report. The comparative costs for land acquisition, on-site and off-site developments, and bussing subsidy ranged from a low of approximately $1.3 million to a high of approximately $2.6 million. An additional $4 to $5 million dollars would be required for construction of the school buildings and play facilities at each alternative site. The total estimated expenditure of $5.3 to $7.3 million dollars for development of the new school will provide employment initially during the construction phases and provide subsequent employment for administration, faculty, service, and maintenance personnel to operate the school.

Acquisition of about 6.5-9 acres for the school site will remove land from the tax base. However, the benefits of the new school may result in increased property values nearby which may off-set the loss of tax revenue from the school site. Development of the 6.5-9 acres would also remove land from grazing or other agricultural activity. This is expected to have some economic effect since the land is rated as having good to fair agricultural productivity by the University of Hawaii.

Of the ten alternative sites considered in the report, only Sites H and I are currently used for agricultural production. Site H is planted with pineapple and Site I is partially planted with truck crops. If the school is developed at either Site H or I, approximately 9 acres of agricultural land will be permanently removed from long-term production. The selection of one of the other alternative sites should have little or no impact on agriculture because these sites, although zoned for agriculture, are no longer in production.

The development of a school at Sites C, D, E, F, and G will remove lands which have agricultural potential. However, a school development at either Sites A, B, or J will involve only urban zoned lands. The removal of 9 acres of agricultural land will have some impact on
the long-term productivity of agriculture, especially if the school development promotes additional housing developments which encroach into agricultural lands.

It is anticipated that the State would provide the funding for the school. However, some of the capital costs may be shared by the County and/or private land developers who would also benefit from the improvements.

C. Social

The proposed intermediate school will provide additional benefits to the Up-Country community by providing a convenient location to receive an education. The school's classrooms, multi-purpose room, and play facilities will also be available for use by the community during non-school hours. The proposed school should enhance the lifestyle of the Up-Country area and contribute social benefits to the surrounding community in terms of providing adult classes, musical programs, joint school-county cultural enhancement programs, etc.

The school will be planned to minimize hazardous traffic conditions by providing adequate school bus and vehicular loading zones and turn-around areas. Sidewalks, crosswalks, and traffic control measures will be incorporated in the school development for pedestrian and vehicular safety.

The alternative school sites do not require the displacement of business establishments. Only Alternative Site A will require the displacement of residential dwelling units if it is selected for the school site. Residents who are displaced by the project will qualify for relocation assistance and payments to minimize the hardship of moving. A conceptual relocation plan which identifies the relocation assistance available will be prepared if this site is selected.

Other social effects which may result from the school development have been evaluated with respect to each alternative site and have been incorporated in the Site Selection Report under "Community Site Criteria". Since the need for the school is established by the development of the community, the social benefits to be gained should outweigh any adverse social effects.

D. Environmental

1. Flora

Most of the alternative sites are abandoned pineapple fields with scrub growth. The types and
degree of existing flora of the alternative sites are generally similar except for Site C, which has scrub growth over rocky, shallow soil. The overgrowth consists of cactus, haole koa, silk oak, eucalyptus, guinea grass and other grasses and weeds. Based on the comparable flora of the surrounding areas, it is unlikely that any rare or valuable plants will be destroyed by the school development. The loss of vegetation by the clearing and grading of the site should be offset by the grassing and landscaping of the school campus. Existing trees which are desirable will be incorporated in the landscape plans where possible or transplanted.

2. Fauna

The fauna of the area consists of introduced species which are common throughout the Hawaiian islands. These consist of rats, mice, mongoose and stray cats. Some common birds such as mynah, dove and sparrow also inhabitate the area. Development of the school site will remove about 6.5-9 acres of feeding and breeding grounds for rats and mongoose. However, this impact should be negligible. The loss of any trees for nesting and feeding of the birds will have a temporary adverse effect until the school landscaping is planted and matured.

3. Aesthetic

The terrain of the alternative sites evaluated for the proposed school are typical for the slopes of Haleakala. The sites do not contain significant natural landmarks which would be affected by the school development. The design of the school buildings will be coordinated with the character of the surrounding community to provide an aesthetically pleasing campus. The buildings will probably consist of single-story administration, library and cafetorium buildings and one or two-story classroom buildings. Based on the above, no adverse effects are anticipated on the scenic vistas or natural beauty of the alternative project locations.

4. Water Quality

The school development should not adversely affect the water quality of the coastal waters based on the following:

a. The alternative sites are located between 1,300 to 2,800 feet above sea level.

D-15
b. The alternative site selected will have a sewage disposal system which meets the Department of Health's regulations for sewage treatment and disposal systems.

c. The alternative sites are located more than five miles from the Wailoa and Waikamoi Ditches which supply the Makawao-Pukalani-Kula area.

5. Air Quality

The school development is not expected to have a significant effect on the air quality of the district. There will be some dust and noise pollution during the construction phases. However, these nuisances will be temporary and strictly controlled to comply with the requirements of Chapter 43 - Air Pollution Control, Public Health Regulations, State Department of Health. The prevailing winds in the Up-Country area are from the northeast direction in Makawao and Pukalani. In contrast, the wind in the Kula vicinity is characterized by a gentle southerly sea breeze which is caused by the large Haleakula mountain mass which blocks the prevailing northeast trades.

6. Solid Waste

Solid waste generated during the site preparation and construction phase of the project will be removed and disposed of in compliance with Chapter 46 - Solid Waste Management Control, Public Health Regulations, State Department of Health and County rules and regulations. Solid wastes generated during the maintenance and operation of the school will be properly stored in trash bins and removed regularly for disposal at an approved site.

7. Noise Pollution

Development and operation of the school is not expected to create excessive noise pollution. Construction noise will be unavoidable. However, it will be controlled by the Department of Health regulations and will be temporary and intermittent. Other noise sources include students, cafeteria operations, and grounds maintenance. These periodic disturbances should be minor and within the limits of human tolerance.

8. Drainage

The alternative school sites are outside of poten-
tial flood prone areas where drainage improvements cannot be made at reasonable cost. Since the sites are located in a relatively low rainfall (30" to 40" median annual) area with well-drained soils, the on-site drainage runoff from the school facilities can be disposed of by natural percolation and by the use of dry wells. Alternative Site E will require some off-site drainage improvements to channelize potential overland flooding mauka of Makawao Avenue to prevent flooding of the site.

The school construction activity may create some potential soil erosion concerns, however, the soil survey interpretations for all sites show that the soils are well drained. This fact, plus the low median annual rainfall of 30 to 40 inches reduces the possibility of adverse soil erosion during construction periods. The DAGS standard specifications for environmental protection which is included in Appendix I will be strictly enforced during construction to mitigate soil erosion.

9. Traffic

The school development will inevitably increase the vehicular traffic on the access roads surrounding each alternative site. For this reason, the accessibility of each site was carefully evaluated in terms of pedestrian, vehicular, bussing, safety, and traffic. The access roads will be improved if necessary to provide adequate capacity for the school traffic. School bussing service can be expanded to minimize safety concerns for students walking to school. The realignment of Haleakala Highway through Pukalani is scheduled for construction after 1982-83 and should improve access to Sites B, H, and I. However, Sites C and J are off of Kula Highway and it is anticipated that the construction of a school at these sites will increase traffic hazards. The on-site school development will also provide sufficient parking, loading and turn-around 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.

The proposed intermediate school will generate additional traffic. However, no serious traffic congestion is anticipated because most of the students will be bussed to school. The estimated percentage of students qualifying for bussing ranges from 69% for Site A to 90% for Site C. The
school traffic and local traffic are essentially the same since there is no prevalent commuter traffic through the communities. The alternative sites were selected for maximum accessibility and safety in terms of traffic. Access roadways may be improved or constructed to accommodate the school traffic. The proposed roadway improvements will also benefit the adjoining property owners by providing improved access.

10. Public Utilities

The alternative sites will be provided with the necessary electrical, telephone, gas, and water services for school development. The electrical and telephone services will be extended from nearby transmission lines. The gas service for the school will be provided by using refillable propane or methane storage tanks on the site. The water service will be extended to the site from the closest available main. The existing and planned capacities of these utilities should be adequate to accommodate the school without need for major expansion.

11. Fire Protection

The alternative sites will be served by the Makawao Fire Station which is located on Makawao Avenue near the intersection of Haleakala Highway. The school campus will also be provided with adequate fire protection in terms of fire resistant construction, fire alarm systems, fire extinguishers and fire hydrants.

12. Historical Sites

The alternative school sites have been previously disturbed by farming and other activities and do not contain any known historical sites of significant value.

PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The school development will commit about 6.5-9 acres of presently undeveloped land for urban use for as long as the school is needed. In the event the school is closed, the land will probably be used for other public functions. Based on the above, it is highly unlikely the land will be restored to a natural state. This commitment of land for higher use is unavoidable, but not deemed to have a major adverse impact on the environment.

Some minor adverse impacts such as noise, dust, and water
pollution may occur during the construction phases. However, these effects will be temporary and will be strictly controlled by enforcing applicable pollution control measures. Other long-term adverse effects would be the traffic generated by the school, some noise pollution, solid waste generated, and the consumption of water, gas and electricity. These adverse effects are inevitable with the urbanization of lands.

ALTERNATIVES TO THE PROPOSED ACTION

The possible alternatives to establishment of the proposed intermediate school are as follows:

1. Continue the present school organization of K-6 at Pukalani and K-8 at Makawao and Kula Schools.
2. Maintain the existing Grade K-8 organization at Makawao, and Kula Schools and change Pukalani to a K-8 organization.
3. Expand the facilities at either Pukalani, Makawao, or Kula Elementary Schools to accommodate the 7-8 graders from the service area in a K-8 school and expand the bus service.
4. Expand the facilities at Maui High School to accommodate the 7th and 8th graders from the Up-Country area and expand the bussing service.
5. Reconstruct the old Maui High School campus at Hamakuaapoko for an intermediate school to serve the Up-country area and expand the bus service.

The above alternatives were considered but rejected in favor of a new intermediate school for the following reasons:

1. The continuing development of the Makawao-Pukalani area is projected to increase the enrollment at Makawao to 1,000 students in Grades K-8 by the year 1995. The existing Makawao School site is adequate for only 600 elementary students. Expansion of the site would displace many residents at a high cost.

2. The existing school facilities at Makawao, Pukalani, and Kula could be expanded and operated as K-8 schools, however:
   a. The existing 6-acre Makawao School site is adequate for only 600 elementary students. The projected enrollment for Grades K-8 is 750 students in 1995 for Makawao students only. Expansion of the site would displace many residents.
b. The DOE Maui District Office has adopted a K-6 organization for Makawao, Pukalani, and Kula Schools and a 7-8 organization for the proposed intermediate school.

c. A 7-8 intermediate school will provide for a better educational program for students by offering a wider variety of courses.

3. Expansion of the existing school facilities at either Pukalani or Makawao School for the grade 7-8 Makawao-Pukalani-Kula students would exceed the DOE maximum desirable enrollment of 1,000 students for an elementary school. Expansion of the existing K-8 Kula School facilities would result in an enrollment below 1,000 students. However, if a combined K-8 school is sited at one of these schools, then it should be possible to provide separate elementary and intermediate schools as evaluated in the Site Selection Report.

4. The existing Maui High School facilities could be expanded to a grade 7-12 organization. However, the disadvantages are:

   a. The 500-grade 7-8 students from the Up-Country would have to be bussed up to 20 miles to Maui High School. Only the grade 9-12 students from the Up-Country are presently bussed to Maui High.

   b. The total enrollment at Maui High for grades 7-12 would exceed the DOE maximum desirable enrollment of 2,000 students for a high school.

   c. There will be strong parental opposition to the creation of a 7-12 grade organization at Maui High.

4. Reconstruction of the old Maui High School is undesirable because:

   a. The existing facilities will require complete replacement.

   b. The school is outside of the proposed school service boundary established for the intermediate school.

   c. The County of Maui has jurisdiction of this facility.

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

The possible short-term effect of the school development on
man's environment is expected to be minimal in comparison to the long-term benefits to be gained. The State is committed to the goal of educating its people. Accordingly, the proposed school is required to better fulfill this goal.

MITIGATION MEASURES PROPOSED TO MINIMIZE IMPACT

Transformation of the selected school site from its present undeveloped state to a school campus will have some impact on the environment. The temporary effects created during the construction phases of the project will be minimized by enforcing the applicable Department of Health, County and DARGS pollution control measures. The DARGS mitigation measures are specified by Section 1G - Environmental Protection, and Section 2I - Grass Planting which are contained in Appendix I of this EIS.

The school development will also comply with all Federal, State and County regulations pertaining to land use, construction and environmental controls to ensure protection of the public health, safety and welfare. Acquisition of the selected site will be in accordance with State laws which will provide fair compensation and relocation assistance to mitigate financial hardship to the landowner.

IRREVERSIBLE COMMITMENTS OF RESOURCES

The labor required for construction of the school and the materials which cannot be economically recycled will be irreversible commitments of resources. Also, the labor, material, and utilities required for operation and maintenance of the school are irreversible. The land required by the school could be used for other purposes. However, it would probably be committed to other public uses if the school is discontinued in the future.

CONSULTATION WITH OTHER AGENCIES

The following agencies and parties have been consulted in the preparation of the final document. Their comments and DARGS responses are included in Appendix II of this EIS.

A. Federal Agencies

Soil Conservation Service
U. S. Department of Agriculture
Mr. Jack Kanalz

Corps of Engineers
Pacific Ocean Division
U. S. Army

Alexander Young Bldg.
Room 440
Honolulu, Hawaii 96813

Fort Shafter
Bldg. 230
APO San Francisco 96558

B. State Agencies

Department of Agriculture
Mr. John Farias, Jr.
C. County Agencies

Mayor Elmer Cravalho
Planning Department
Department of Public Works
Parks Department
Department of Economic Development
Department of Water Supply
Hawaiian Telephone Co.

Mr. Toshio Ishikawa
Mr. Wayne Uemae
Mrs. Jan Dapitan
Mr. Eric Soto
Mr. Tatsumi Imada
P. O. Box 370

200 S. High Street
200 S. High Street
200 S. High Street
200 S. High Street
200 S. High Street

Wailuku, Maui 96793
Wailuku, Maui 96793
Wailuku, Maui 96793
Wailuku, Maui 96793
Wailuku, Maui 96793

D. Public Utilities

P. O. Box 370
Wailuku, Maui 96793
Maui Electric Co. 210 Kam Avenue
Kahului, Maui 96732
Gasco Inc., Maui Division 70 Hana Hwy.
Kahului, Maui 96732

E. Media
The Maui News Wailuku, Maui 96793
Maui Sun Wailuku, Maui 96793

F. Civic Organizations
Makawao School P.T.A. P. O. Box 398
Makawao, Maui 96768
Pukalani School P.T.A. 2945 Iolani Street
Pukalani, Maui 96788
Kula School P.T.A. P. O. Box 77
Kula, Maui 96790
Maui District School Advisory Council P. O. Box 1070
Wailuku, Maui 96793
Pukalani Community Association P. O. Box 116
Pukalani, Maui 96788

UNRESOLVED ISSUES
There are no unresolved issues in this EIS which have not been resolved in the review and discussion process.

LIST OF NECESSARY APPROVALS

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*Depending upon specific site selected.*
APPENDIX I

SECTION 1G - ENVIRONMENTAL PROTECTION

SECTION 2I - GRASS PLANTING
DIVISION 1 - GENERAL

SECTION 16 - ENVIRONMENTAL PROTECTION

The Contractor shall comply with the following requirements for pollution control in performing all construction activities:

1. RUBBISH DISPOSAL

A. No burning of debris and/or waste materials shall be permitted on the project site.

B. No burying of debris and/or waste material except for materials which are specifically indicated elsewhere in these specifications as suitable for backfill shall be permitted on the project site.

C. All unusable debris and waste materials shall be hauled away to an appropriate off-site dump area. During loading operations, debris and waste materials shall be watered down to allay dust.

D. No dry sweeping shall be permitted in cleaning rubbish and fines which can become airborne from floors or other paved areas. Vacuuming, wet mopping or wet or damp sweeping is permissible.

E. Enclosed chutes and/or containers shall be used for conveying debris from above to ground floor level.

F. Cleanup shall include the collection of all waste paper and wrapping materials, cans, bottles, construction waste materials and other objectionable materials, and removal as required. Frequency of cleanup shall coincide with rubbish producing events.

2. DUST

A. Dust shall be kept within acceptable levels at all times including non-working hours, weekends and holidays in conformance with Chapter 43 - Air Pollution Control, as amended, of the State Department of Health Public Health Regulations.

B. The method of dust control and all costs incurred therefor shall be the responsibility of the Contractor.

C. The Contractor shall be responsible for all damage claims in accordance with Section 7.7 - "Responsibility for Damage Claims", of the General Requirements and Covenants.
3. NOISE

A. Noise shall be kept within acceptable levels at all times in conformance with Chapter 44B - Community Noise Control for Oahu, State Department of Health, Public Health Regulations. The Contractor shall obtain and pay for community noise permit from the State Department of Health when the construction equipment or other devices emit noise at levels exceeding the allowable limits.

D. All internal combustion engine-powered equipment shall have mufflers to minimize noise and shall be properly maintained to reduce noise to acceptable levels.

C. No blasting and use of explosives will be permitted without prior approval of the Engineer.

D. Pile driving operations shall be confined to the period between 8:00 a.m. and 5:30 p.m., Monday through Friday. Pile driving will not be permitted on weekends and legal State and Federal holidays.

In the event the Contractor's operations require the State's inspectional and engineering personnel to work overtime, the Contractor shall reimburse the State for the cost of such services in accordance with Section 8.3 of the General Requirements and Covenants.

E. Starting up of on-site vehicular equipment meeting allowable noise limits shall not be done prior to 6:45 a.m. without prior approval of the Engineer. Equipment exceeding allowable noise limits shall not be started up prior to 7:00 a.m.

4. EROSION

During interim grading operations the grade shall be maintained so as to preclude any damages to adjoining property from water and eroding soil. Temporary berms, cut-off ditches, and other provisions which may be required because of the Contractor's method of operation shall be installed at no cost to the State. Drainage outlets and silting basins shall be constructed and maintained as shown on the plans to minimize erosion and pollution of waterways during construction.

5. OTHERS

A. Wherever trucks and/or vehicles leave the site and enter surrounding paved streets, the Contractor shall prevent any material from being carried onto the pavement. Wastewater shall not be discharged into existing streams, waterways, or drainage systems such as gutters and catch basins unless treated to comply with Department of Health water pollution regulations.

D. Trucks hauling debris shall be covered as required by PUC Regulation. Trucks hauling fine materials shall be covered.

NOTES TO ARCHITECT

If additional time restrictions are necessary for your project, include this paragraph wherever such restrictions are stipulated.
C. No dumping of waste concrete will be permitted at the job site unless otherwise permitted in the Special Provisions.

D. Except for rinsing of the hopper and delivery chute, and for wheel washing where required, concrete trucks shall not be cleaned on the job site.

E. Except in an emergency, such as a mechanical breakdown, all vehicle fueling and maintenance shall be done in a designated area. A temporary berm shall be constructed around the area when runoff can cause problems.

F. When spray painting is allowed under Section 9A - Painting, such spray painting shall be done by the 'airless spray' process. Other types of spray painting will not be allowed.

6. SUSPENSION OF WORK

Violation of any of the above requirements or any other pollution control requirements which may be specified in the Technical Specifications herein shall be cause for suspension of the work creating such violation. No additional compensation shall be due the Contractor for remedial measures to correct the offense. Also, no extension of time will be granted for delays caused by such suspensions.

If no corrective action is taken by the Contractor within 72 hours after a suspension is ordered by the Engineer, the State reserves the right to take whatever action is necessary to correct the situation and to deduct all costs incurred by the State in taking such action from monies due the Contractor.

The Engineer may also suspend any operations which he feels are creating pollution problems although they may not be in violation of the above mentioned requirements. In this instance, the work shall be done by force account as described in Subsection 4.2(e) "FORCE ACCOUNT WORK" of the General Requirements and Covenants and paid for in accordance with Subsection 9.4(b) "FORCE ACCOUNT WORK" therein. The count of elapsed working days to be charged against the contract in this situation shall be computed in accordance with Subsection 8.8(d) "CONTRACT TIME" of the General Requirements and Covenants.
DIVISION 2 - SITE WORK

SECTION 2 I - GRASS PLANTING

1. GENERAL CONDITIONS:
   As specified in Section 1A.

2. WORK SPECIFIED IN THIS SECTION:
   The work to be performed under this section shall include furnishing all labor, materials, equipment and tools for grass planting as specified herein. Grass shall be planted in areas indicated on the drawings and as listed below:
   a. All existing grassed areas that are damaged by construction operations;
   b. Areas that are dug up for utility trenches;
   c. Areas from which existing structures are to be removed;
   d. Areas within "Contract Zone Limits" that are graded and covered with top soil except areas designated for other plants; and
   e. All other areas within "Contract Zone Limits" that are indicated on the plans to be graded, whether topsoiled or not, such as slopes of banks, etc.

3. WORK SPECIFIED IN OTHER SECTIONS:
   Top soil for general finish grading and its installation are specified under EARTHWORK SECTION. However, screened top soil for repair work as specified herein shall be furnished and installed under this section.

4. MATERIALS:
   a. Grass shall be that locally known as fine "Manienic" or common Bermuda grass (Cynodon Dactylon). At the option of the Contractor, grass planting may be by seeds (plain seeding or by hydro-mulching) or by sprigs.
      (1) Grass seeds shall be fresh, hulled, and meet the following requirements:

   Job No. [INSERT NO.]
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   Rev. 6/75
Grass seeds shall be delivered to the site in unopened, sealed containers, labeled with brand name and per cent purity. Labeling shall indicate that the seeds passed a certified germination test no more than 12 months prior to use.

(2) Grass sprigs shall be healthy living runners and stolons. After they are dug, they shall be covered and kept moist until planted.

b. **Fertilizer** shall be applied and shall consist of the following percentages by weight of active ingredients:

1. **For First Application:**
   - Nitrogen: 8% OR 10%
   - Phosphate: 24% OR 20%
   - Potash: 24% OR 20%

2. **For Second Application:**
   - Nitrogen: 18% OR 16%
   - Phosphate: 10% OR 16%
   - Potash: 5% OR 16%

c. **Mulch Materials**

1. **Mulch** shall be specially processed fiber containing no growth or germination inhibiting factors. It shall be such that after addition and agitation in the hydraulic equipment with seed, fertilizer, water and other additives not detrimental to plant growth, the fibers will form a homogeneous slurry. When hydraulically sprayed on the soil, the fibers shall form a blotter-like ground cover which readily absorbs water and allows infiltration to the underlying soil.

2. **Stabilizing and water retaining agent** for hydro-mulching option only shall be "Verdylol Super", "Ecology Control M-Binder" or approved equal. Rate of application

---

**NOTES TO ARCHITECT**

For areas which will be in shade most of the time, such as under building overhangs, in building "shades", or under large spreading trees with dense foliage, use the following:

In low, hot locales:
- Buffalo grass (Stenotaphrum secundatum).
- In high, moist locales - Cenizo grass.

Bonnia, if used, shall be permitted only in parking lot medial strips. It shall not be specified for large areas because it is slow growing and expensive.

Modify entire sections as necessary when above grass types are used.
of "Verdyol Super" shall be 50 lbs./acre and that for "Ecology Control M-Binder" shall be 60 lbs./acre.

d. Screened topsoil for repair work shall be a fertile, friable soil of loamy character, and shall contain organic matter. It shall be obtained from well-drained arable land; be free from weeds, stone and debris; and shall pass a maximum 1/4" screen. Topsoil shall be capable of sustaining healthy plant life. See Paragraph 5d(5) for application.

c. Water shall be potable.

5. INSTALLATION AND WORKMANSHIP:
   a. Preparation of Planting Bed:
      (1) Raking: Before grass planting is started, the entire area shall be raked to an even surface and all rocks and debris removed. Weeds and other obnoxious vegetation shall be removed by manual or chemical methods. Finished grades which have been established shall be maintained and shall conform to that shown on the drawings with slopes in the proper directions.
      (2) Tilling: Where required because the soil is hardpacked, existing and/or raked surfaces at finished grades shall be tilled to a depth of at least 3 inches by plowing, diskling, harrowing, or other similar methods. All rocks and all debris such as stumps, roots, wire, grade stakes and other rubbish that are turned up by tilling shall be removed. Tilling shall be omitted on slopes where watering is likely to wash the top soil away.
      (3) Leveling: Any undulations or irregularities in the surface resulting from tilling or other operations shall be leveled out before planting operations are begun.
   b. Planting:
      The Contractor shall notify the Engineer one day before planting of grass.
      (1) Cotton by Grass: Seeding: If grass seeds are used, the following procedure shall be used (NOTF: Contractor should exercise caution in seeding slopes where seeds may be washed away):
(a) The grass seeds shall be broadcast uniformly by hand or by sowing equipment at the rate of 100 pounds per acre. Half the seeds shall be sown with the sower moving in one direction and the remainder shall be sown at right angles to the first direction.

(b) The surface shall then be raked to a smooth even plane while the seeds are simultaneously worked into the soil to a depth of about 1/2 inch.

(c) The ground shall then be watered.

(2) Option by Grass Sprigging:

(a) Furrows shall be placed perpendicular to drainage lines and parallel to contours on slopes and shall be spaced no more than 9" apart.

(b) Fresh sprigs shall be planted in each furrow a maximum of 6" apart and covered with soil to a minimum depth of 2 inches.

(c) The surface shall then be smoothed and compacted by means of a culti-packer, roller or other similar equipment weighing 50 to 90 pounds per lineal foot of roller.

(d) The ground shall be watered immediately after rolling.

(3) Option by Hydro-Mulching of Grass Seed:

This work shall consist of furnishing and applying hulled bermuda seed, fertilizer, mulch and stabilizing and water retaining agent by hydro-mulching.

(a) The seeds shall be applied at the rate of 100 pounds per acre minimum. Mulch shall be applied at a rate of 1200 pounds per acre minimum (25 lbs. per 900 sq. ft.). In every application, complete and uniform coverage of the soil shall be attained.

(b) First application of fertilizer shall be included with mulch and seed.
(c) The hydro-mulch equipment shall be capable of mixing all the necessary ingredients to a uniform mixture and to apply the slurry to provide uniform coverage. Seed, fertilizer, mulch mix and stabilizing water retaining agent shall be applied in one operation by hydraulic equipment made specifically for this use. The equipment shall have a built-in agitation system with an operating capacity sufficient to keep the mix in uniform distribution until pumped from the tank. Distribution and discharge lines shall be large enough to prevent stoppage and shall be equipped with hydraulic discharge spray nozzles which provide a uniform distribution of the slurry.

(d) Areas inaccessible to hydro-mulching application shall be seeded or hand sprigged and fertilized by approved hand methods.

(e) Water shall be applied immediately following mulching.

c. Application of Fertilizer:

The Contractor shall notify the Engineer one day before application of fertilizer.

(1) Fertilizer shall be distributed uniformly over the planted area.

(2) The first application of fertilizer shall be applied at the rate of 500 pounds per acre about two weeks after grassing and shall be followed by watering. (First application of fertilizer if using hydro-mulching option shall be mixed with the seeded mulch.)

(3) The second application of fertilizer shall be applied at the rate of 300 pounds per acre about one week before the end of the maintenance period and shall be followed by watering.

d. Maintenance:

(1) General: The Contractor shall be responsible for the proper care of the grassed areas. Maintenance shall include watering, weeding, mowing, reparing, regrassing and protection, and shall be required until the entire project is accepted, but in any event for a period not less than _____ days after planting of grass.

Specify maintenance period: 60 days for 1st increment or large areas; 45 days for 2nd increment or smaller areas.
(2) **Watering:** After planting of seeds or grass sprigs or mulching the ground shall be watered as deemed necessary by the Contractor to establish a healthy growth. Watering shall be done in a manner that will prevent erosion due to the application of excessive quantities of water, and the watering equipment shall be of a type that will prevent damage to the finished surface.

(3) **Weeding:** Weeds shall be uprooted and removed completely and in no case shall they be allowed to grow and propagate more seeds. Large holes caused by weeding shall be filled with screened top soil and raked level.

(4) **Mowing:** Grass shall be mowed to a height of 1-1/2" whenever the height of grass becomes 3" except as noted for final mowing.

(5) **Repairing and Reclassing:** When any portion of the surface becomes gullied or otherwise damaged and grass has failed to grow, such areas shall be repaired with screened top soil and replanted with grass. Any area of one foot square or more in which grass has failed to grow after 30 days of maintenance shall be regrassed.

(6) **Protection:** The grassed areas shall be protected against traffic so that the grass establishes a healthy growth. Grassed areas damaged by traffic shall be replanted.

6. **Acceptance of Grassing:**

At the time of acceptance, the grass shall have been well established and shall be given a final weeding and a final mowing to a height of 1".

At the end of the maintenance period, should there appear areas where grass has failed to grow, such areas shall be replanted with grass, refertilized and maintained beyond the maintenance period until a healthy growth is established.
APPENDIX II

REVIEW COMMENTS AND RESPONSES
CONSULTATION PHASE
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<tr>
<td>Mr. Jack Kanalz</td>
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<tr>
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<tr>
<td>Dept. of Agriculture</td>
<td>Feb. 11, 1977</td>
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<tr>
<td>Mr. John Farias, Jr.</td>
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<tr>
<td>Dept. of Education</td>
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<tr>
<td>Mr. Charles Clark</td>
<td></td>
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<tr>
<td>Dept. of Education, Maui District</td>
<td>None</td>
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<tr>
<td>Mr. Darrell Oishi</td>
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<td>Dept. of Health</td>
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<tr>
<td>Mr. Shinji Soneda</td>
<td></td>
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<tr>
<td>Dept. of Land and Natural Resources</td>
<td>Feb. 18, 1977</td>
<td>March 30, 1977</td>
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<tr>
<td>Mr. Christopher Cobb</td>
<td></td>
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<tr>
<td>Dept. of Land and Natural Resources, Historic Preservation Officer</td>
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<tr>
<td>Miss Jane Silverman</td>
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<tr>
<td>Dept. of Planning and Economic Development</td>
<td>Feb. 25, 1977</td>
<td>March 14, 1977</td>
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<tr>
<td>Mr. Hideto Kono</td>
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<td>Dept. of Transportation</td>
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<td>Admiral E. Alvey Wright</td>
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<td>Dr. Richard Marland</td>
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<td>Dr. Doak C. Cox</td>
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<td>Mr. Toshio Ishikawa</td>
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<td>June 23, 1977</td>
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<td>Mr. Wayne Uemae</td>
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<td>Mr. Eric Soto</td>
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<td>Dept. of Water Supply</td>
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<tr>
<td>Mr. Tatsumi Imada</td>
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<td>Mrs. Charmaine Armitage</td>
<td>Feb. 16, 1977</td>
<td>Feb. 28, 1977</td>
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<td>Mr. Lucio Calina</td>
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<td>Mrs. Patricia Takamori</td>
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<td>Mr. Daniel Dancil</td>
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<td>Mr. Harold Gouveia</td>
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<td>Mrs. Dorothy L. Hunt</td>
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<td>Mrs. Loretta H. Leong</td>
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<td>Mr. Eugene A. Librano, Sr.</td>
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<td>Mrs. Jeannette M. Brown</td>
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<td>Mr. Santiago Magallanes</td>
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<td>Mr. Guillermo Barut</td>
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<td>Mr. Erin Starr</td>
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<td>Mr. &amp; Mrs. Charles Rapozo</td>
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<td>Mrs. Jeanette K. Bills</td>
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<td>Mr. &amp; Mrs. Ronald G. Ruettgers</td>
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<td>Mrs. Merle Medeiros</td>
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<td>Mrs. Gayle St. John</td>
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<td>March 9, 1977</td>
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TO WHOM IT MAY CONCERN

Subject: Draft Site Selection Report and Environmental Impact Statement
Makawao-Pukalani-Kula Intermediate School
Makawao, Maui, Hawaii

Attached is a copy of the subject report for your review and comments. The document provides a comprehensive evaluation of alternative sites for the proposed Makawao-Pukalani-Kula Intermediate School and discusses the potential environmental impacts of the project. Your written comments are requested by March 4, 1977 and should be sent to:

Department of Accounting and General Services
Division of Public Works
P. O. Box 119
Honolulu, Hawaii 96810

We would appreciate those comments especially within your area of responsibility, expertise and/or concern. All comments received will be considered in the final evaluation and recommendation of the proposed school site and the environmental impact statement.

If you have no comments to offer relative to the project, we would appreciate your response to that effect. Should you have specific questions or need additional clarification on the report, please direct your inquiries to the project coordinator, Mr. Harold Sonomura of my Public Works Division staff at 548-5703.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

Attachment
IN THE MATTER OF

Notice to Property Owners In
Makawao, Pukalani and Kula, Maui

AFFIDAVIT OF PUBLICATION

NOTICE TO PROPERTY OWNERS IN
MAKAWAO, PU KALANI AND KULA, MAUI

Draft Environmental Impact Statement For
Proposed Makawao Intermediate School
Site Selection Study

Pursuant to the requirements of Chapter 343,
Hawaii Revised Statutes, an environmental im-
pact statement is being prepared by the State
Department of Accounting and General Services for
the site selection of the proposed Makawao-
Pukalani-Kula Intermediate School. Comments on
the draft site selection study and environmental
impact statement are currently being solicited
from various governmental agencies, community
organizations and individuals. The study evaluates
alternative sites for the proposed school in Makaw-
owo, Pukalani and Kula which are identified as
follows:

Tax Map Key Location

2-3-14-1 Adjacent to Kula School
2-3-21-1 Intersections of Makawao Ave. &
Haleakula Hwy.
2-3-08-5 Makai of Kula 200 Subdivision
along Kula Hwy.
2-3-09-25 & 33 Adjacent to Pukalani Element-
ary
2-3-11-1 & 2 Mauka of Makawao Ave. on Ha-
akekula Hwy.
2-4-01-1 Makai of Lai Drive
2-4-01-2 Adjacent to Eddie Tam Park off
Makani Road
2-4-05-5 Adjacent to Makawao School
2-4-25-5, 6, 7, 8, 9, 11, 12, 15, 16, & 17
Makai of Uku and Maha Roads

Owners and adjoining owners of the properties
listed above and other interested persons or organ-
izations who wish to review and comment on the
site study and environmental impact statement
should submit a request by February 18, 1977 to:

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

The environmental impact statement for this
project will be distributed by the Environmental
Quality Commission after the consultation com-
ments have been reviewed and considered.

HIDEO MURAKAMI
State Comptroller

STATE OF HAWAII,  |
CITY AND COUNTY OF HONOLULU |

Nancy Kira

three

being duly sworn, deposes and says, that She is Clerk of the
HAWAII NEWSPAPER AGENCY, INC., agent for HON-
OLULU ADVERTISER, INC., publishers of THE HONO-
LULU ADVERTISER and SUNDAY STAR-BULLETIN
and ADVERTISER, a daily newspaper published in the City
and County of Honolulu, State of Hawaii, that the ordered
publication in the above entitled matter of which the annexed
is a true and correct printed notice, was published three
times in said daily newspaper, commencing on the__ day
of___, 19__, and ending on the__ day
of___, 19__, (both days inclusive), to wit,
on___, 19__

and that affiant is not a party to or in any way interested
in the above entitled matter.

Subscribed and sworn to before me this___ day
of___, A. D. 19__

Rotary Public of the First Judicial Circuit,
State of Hawaii
My commission expires___

D-40
STATE OF HAWAII, County of Maui

Barbara Y. Iwaiishi

being duly sworn deposes and says, that he is Advertising Clerk of the Maui Publishing Co., Ltd., publishers of the MAUI NEWS, a newspaper published in Wailuku, County of Maui, State of Hawaii; that the ordered publication as to

MAKAWAO, PUKALANI AND KULA, MAUI

of which the annexed is a true and corrected printed notice, was published 3 times in the MAUI NEWS, aforesaid, commencing on the 28th day of January, 1977, and ending on the 2nd day of February, 1977, (both days inclusive), to-wit: on January 28, 31; February 2, 1977.

and that affiant is not a party to or in any way interested in the above entitled matter.

Subscribed and sworn to before me this 2nd day of February, A.D. 1977.


My commission expires August 31, 1977.

---

NOTICE TO PROPERTY OWNERS IN MAKAWAO, PUKALANI AND KULA, MAUI

Draft Environmental Impact Statement For Proposed Makawao Intermediate School Site Selection Study

Pursuant to the requirements of Chapter 343, Hawaii Revised Statutes, an environmental impact statement is being prepared by the State Department of Accounting and General Services for the site selection of the proposed Makawao-Pukalani-Kula Intermediate School. Comments on the draft site selection study and environmental impact statement are currently being solicited from various governmental agencies, community organizations and individuals. The study evaluates alternative sites for the proposed school in Makawao, Pukalani and Kula which are identified as follows:

<table>
<thead>
<tr>
<th>Tax Map Key</th>
<th>Description</th>
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<tr>
<td>3-2-14-1</td>
<td>Adjacent to Kula School</td>
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<tr>
<td>3-3-07-5</td>
<td>Intersection of Makawao Ave. &amp; Hanaekala Highway</td>
</tr>
<tr>
<td>3-3-08-5</td>
<td>Makal of Kula 250 Subdivision along Kula Highway</td>
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<tr>
<td>3-3-09-35 &amp; 35</td>
<td>Adjacent to Pukalani Elementary</td>
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<tr>
<td>23-11-1 &amp; 2</td>
<td>Mauka of Makawao Ave. on Hanaekala Highway</td>
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<tr>
<td>24-01-1</td>
<td>Makal of Laki Drive</td>
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<tr>
<td>24-01-2</td>
<td>Adjacent to Eddie Tam Park off Makal Road</td>
</tr>
<tr>
<td>24-05-5</td>
<td>Adjacent to Makawao School</td>
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<tr>
<td>24-05-8, 7, 6, 9, 15, 16 &amp; 17</td>
<td>Makal of Uku and Maha Roads</td>
</tr>
</tbody>
</table>

Owners and adjoining owners of the properties listed above and other interested persons or organizations who wish to review and comment on the site study and environmental impact statement should submit a request by February 19, 1977 to:

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

The environmental impact statement for this project will be distributed by the Environmental Quality Commission after the consultation comments have been reviewed and considered.

(Sgd.) HIDEO MURAKAMI
HIDEO MURAKAMI
State Comptroller

(MN: Jan. 28, 31; Feb. 2, 1977)

D-41
March 3, 1977

Mr. Hideo Murakami
Department of Accounting and
General Services
Division of Public Works
P. O. Box 119
Honolulu, HI 96810

Dear Mr. Murakami:

Subject: Draft Site Selection Report and Environmental Impact Statement, Makawao-Pukalani-Kula Intermediate School
Makawao, Maui, HI

We reviewed the subject EIS and have the following comments:

The USDA-Soil Conservation Service is concerned about the use of prime agricultural lands for other than agricultural uses. An analysis was made of all the alternative sites, and sites A, B, E, F, H, I, and J were all found to be on prime agricultural lands. Sites C, H, and J are presently used for agriculture, sites A, B, and J are zoned urban. Based on this analysis, we recommend either sites A, B, or J for the intermediate school.

Thank you for the opportunity to review this document.

Sincerely,

For
Jack P. Kanalz
State Conservationist
MAR 11 1977

Mr. Jack P. Kanalz
State Conservationist
United States Department
of Agriculture
Soil Conservation Service
440 Alexander Young Building
Honolulu, Hawaii 96813

Dear Mr. Kanalz:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

Thank you for your March 3, 1977 review comments on the subject document. Your recommendation for either Sites A, B, or J for the proposed school will be considered in the final evaluation and recommendation of a school site.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

HS:nk 3-8
Mr. Hideo Murakami  
Department of Accounting and General Services  
P.O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

We have reviewed the Draft Site Selection Report and Environmental Impact Statement for Makawao-Pukalani-Kula Intermediate School as requested in your letter No. (P) 1077.7. The Corps commented on the Draft Site Selection Report for this project in a letter to Mr. Rikio Nishioka dated 14 July 1976. We feel our comments were adequately addressed in this document and have no further comments to make at this time. We wish to thank you for the opportunity for additional input.

Sincerely yours,

KISUK CHEUNG
Chief Engineering Division
Department of the Army
Honolulu District
Corps of Engineers
Bldg. 230, Ft. Shafter
APO San Francisco 96558

Gentlemen:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School
Ref: PODED-PV

Thank you for your 14 July 1976 and 8 March 1977 review comments on the subject document. A discussion on the potential overland flood flows at Site E and the proposed drainage improvements will be included in the final Site Selection Report.

Our current procedure is to combine the Draft Site Selection and Draft Environmental Impact Statement into one document to permit a more comprehensive review and also to expedite the preparation, review, and completion of the project. Our response to your comments on the Draft Site Selection Report was therefore withheld until the Draft Environmental Impact Statement was also prepared and circulated for review.

Please note that the acreage standard for the proposed school site has been reduced by the Department of Education to 6½ acres for Sites B and D and to 8 acres for the other alternative sites.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

HS:iy

D-45
MEMORANDUM

To: Mr. Hideo Murakami, State Comptroller

Subject: Draft Site Selection Report and Environmental Impact Statement
Makawao-Pukalani-Kula Intermediate School
Makawao, Maui, Hawaii
TMK: 2-2, 2-3, and 2-4

The Department of Agriculture has reviewed the subject report and offers comments as follows:

Of the ten alternative sites, only sites A, B, and J are not in State Land Use Agriculture Districts. Of these three sites, site B appears to be the best alternative because:

1. It is in Urban/Rural State Land Use Districts and the Rural District is bounded on three sides by sizeable urban classed land.

2. The Pukalani area, with the largest urban classed land area of 1,050 acres, will probably realize the greatest amount of population growth. The report estimates that from 1985 on the majority of K-7 students will be generated by the Pukalani School.

3. Use of site B will be in conformance with the County General Plan and zoning.

4. Site B is vacant land and its use would not displace any people. Use of site A would displace six families.

5. Site B land is owned by the County. Use of sites A or J would require acquisition of private land owned by two or more individuals.

6. Site B is the best site of the three in terms of traffic hazard considerations.
7. Use of site B incurs the lowest development cost of all sites. Compared to sites A and J use of site B would cost 55.6% of the cost of using site A and 45.4% of the cost of using site J.

While the Department of Agriculture recognizes the necessity of providing educational facilities in demand areas, it also recognizes that the availability of public facilities itself stimulates further urbanization. For this reason the Department of Agriculture recommends strongly against use of any site located in an Agricultural District and, further, recommends that site B be utilized because the Pukalani area can best contain urbanization within the existing urban district in Kula.

Thank you for the opportunity to comment.

JOHN FARIAS, JR.
Chairman, Board of Agriculture
Honorable John Farias  
Chairman  
Department of Agriculture  
State of Hawaii  
Honolulu, Hawaii  

Dear Mr. Farias:  

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  
Makawao, Maui, Hawaii  

Thank you for your review comments of February 11, 1977 on the subject document. Your recommendation which opposes the selection of any site located in an Agricultural District will be considered in the final evaluation and recommendation of a school site.

Very truly yours,

HIDEO MURAKAMI  
State Comptroller

D-48
Honorable Hideo Murakami
Comptroller
P. O. Box 119
Honolulu, HI 96810

Dear Sir:

We have reviewed the draft EIS for the proposed Pukalani Intermediate School.

We recommend this project be closely coordinated with the County Water Department to ensure a dependable water supply at the site chosen.

Very truly yours,

GORDON SOH
Program Planning Coordinator

cc: DOWALD
Honorable Christopher Cobb
Chairman
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Cobb:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 18, 1977 review of the subject document. The water supply for each alternative site has been coordinated with the Maui County Department of Water Supply.

Please note that the acreage standard for the proposed school site has been reduced by DOE to 6-1/2 acres for Sites B and D and to 8 acres for the other alternative sites.

Very truly yours,

HIDEO MURAKAMI
State Comptroller
February 25, 1977

MEMORANDUM

TO: The Honorable Hideo Murakami, State Comptroller
Department of Accounting and General Services

FROM: Hideto Kono, Director

SUBJECT: Draft Staff Study on the Site Selection and Environmental Impact Statement for an Intermediate School for the Makawao-Pukalani-Kula Area, Maui

We have reviewed the subject document and wish to offer the following comments at this time.

1. Comments on the study from the Maui Planning Department, the Maui District School Advisory Council, and the Makawao P.T.A. all seem to favor site D, adjacent to the Eddie Tam Memorial Park, as the site for the new school. In view of the support for site D, perhaps more study should be directed toward evaluating some of the advantages offered by this site which were not examined in the study, including community support.

2. The EIS seems to adequately assess the major environmental impacts which could be anticipated to result from the proposed action.

We appreciate this opportunity to review and comment on this Draft Site Selection Report and EIS.
Honorable Hideto Kono  
Director  
Department of Planning  
and Economic Development  
State of Hawaii  
Honolulu, Hawaii  

Dear Mr. Kono:  

Subject: Draft Site Selection Report and EIS  
Makawao-Fukalani-Kula Intermediate School  
Ref. No. 3031  

Thank you for your February 25, 1977 review comments on the subject document. We do not believe the comments received to date show the need to "evaluate some of the advantages offered by this site which were not examined in the study, including community support". However, the final evaluation and recommendation of a school site will consider the review comments and community support received during the consultation and public review phases of the project.

Very truly yours,

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

Dear Mr. Murakami:

Subject: Draft Site Selection Report and Environmental Impact Statement for Makawao-Pukalani-Kula Intermediate School, Makawao, Maui

Thank you very much for giving us the opportunity to review the above-captioned report. We have the following comments on some of the sites evaluated:

1. Site B--Prior to the opening last Fall of Pukalani Elementary School, considerable concern was raised by parents, police and others about the safety of students who had to walk to school via Haleakala Highway. As a result, all such students are bussed to school.

The realignment of Haleakala Highway which is intended to remove the through traffic and thereby reducing the congestion and hazards on the existing highway is not scheduled for construction until after 1982-83. In addition, the Department of Transportation has no current plans for improving the existing highway. Thus, if Site B is selected, the same traffic concerns and bussing of students will have to be faced until the realignment of Haleakala Highway is completed.

2. Site C--This site fronts Kula Highway which is a 55 MPH highway. Considerable concerns have been expressed by parents and police about the traffic not slowing down despite the existence of a flashing light and multiple warning and regulatory signs in the vicinity of Kula Elementary School. Adding another school in the vicinity will only compound the problem.

3. Sites H and I--The same traffic concerns expressed for Site B also apply for these sites.
4. Site J—Kula Highway is a limited access highway and access is not permitted at the location shown in the sketch (Fig. 17). The nearest access point is approximately 200 feet north near Kaakakai Gulch.

With respect to traffic, the same concerns expressed for Site C apply to this Site J.

Sincerely,

[Signature]

E. ALVEY WRIGHT
Director
Honorable E. Alvey Wright  
Director  
Department of Transportation  
State of Hawaii  
Honolulu, Hawaii  

Dear Admiral Wright:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your March 15, 1977 review comments on the subject document. The following responses are made to your concerns:

1. **Site B**  
The proposed school is now scheduled to open during the 1983-85 period. Accordingly, it is anticipated that the realignment of Haleakala Highway will be completed at approximately the same time. School bussing service can be expanded if additional pedestrian safety concerns are encountered.

2. **Site C**  
The current traffic hazards at Kula Elementary School and the anticipated compounding of the traffic problem if the intermediate school is located at this site is acknowledged. These items will be included in the EIS.

3. **Sites H and I**  
Response on Site B also applies to these sites.

4. **Site J**  
The access location for this site will be moved approximately 200 feet northward as shown on the attached map.
The potential traffic concerns which would occur should the school be constructed at this site will be included in the EIS.

Please note that the acreage standard for the proposed school site has been reduced by DOE to 6½ acres for Sites B and D and to 8 acres for the other alternative sites.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

Attachment
MEMORANDUM

TO: Hideo Murakami, Director
   Department of Accounting and General Services

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

SUBJECT: Draft Site Selection Report and Environmental Impact Statement
   Makawao-Pukalani-Kula Intermediate School, Makawao, Maui

Thank you for inviting us to comment on the subject project. Unfortunately, we are not able to accommodate every request for consultation that is received. We will, however, comment on the EIS when it is officially filed with the Environmental Quality Commission.

If you should have further questions on this matter, please do not hesitate to contact us again.

D-57
Office of the Director

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

Dear Mr. Murakami:


The Environmental Center has received your memo of January 28, 1977 requesting our review of the above sited draft report. We have noted that the Environmental Center comments from an earlier review of the May 1976, Makawao Intermediate School Draft Site Selection Report are appended to this report (pg. C-22, 23). There is no indication in the present draft report (Dec. 1976) that our comments or those of any of the other respondents (appendix C) have been addressed. In fact, with the exception of the addition of 2 paragraphs on pgs 44 and 45 the Dec. 1976 report and the May 1976 site selection reports appear to be identical.

We note that the EIS (appendix D) is now in the consultation phase (pg. D-4). We will appreciate your consideration of the comments submitted by the Environmental Center (July 23, 1976) on the May 1976 report in the preparation of the EIS.

Yours very truly,

[Signature]

Doak C. Cox
Director


D-58

AN EQUAL OPPORTUNITY EMPLOYER
Dr. Doak C. Cox, Director  
Environmental Center  
University of Hawaii  
2540 Maile Way  
Honolulu, Hawaii 96822

Dear Dr. Cox:

Subject: Draft Site Selection Study and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your July 23, 1976 and February 1, 1977 comments on the subject document. These and other comments from governmental agencies and community groups will help us to continue improving the process of selecting sites for public facilities and preparing environmental impact statements.

Our responses to your comments and concerns are contained in the attachment. If you have additional questions, please have your staff contact Mr. Harold Sonomura of the Planning Branch at 548-5703.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

HS:snk 5-2  
Attachment
February 1, 1977 Letter

The May and December 1976 draft site selection reports are almost identical. After distribution of the May 1976 report to selected governmental agencies, our procedures for soliciting review comments on a site selection report and EIS were revised. Previously, a draft site selection report and draft EIS were distributed separately for review and comments. We are now combining the draft site selection report and draft EIS in one document for concurrent review and consultation.

We believe this procedure allows a more comprehensive review of the total report and also expedites the preparation, review, and completion of the studies. In following the new procedure, the May draft site selection report was redistributed with the draft EIS dated December 1976. Therefore, comments received on the May and December reports are being combined.

July 23, 1976 Letter

1. Additional Community Criteria - We do not believe these are relevant factors for selecting a school site since the school will be located within the community it serves and will be available for community use during non-school hours.

If the availability of meeting places and ball fields within a given distance of a community were included in the site criteria, then other minor secondary items which also benefit the community should be included. Examples would be placements of schools in undeveloped or depressed areas so the roadways; sidewalks; water, drainage, sewer and electrical systems, etc., provided by the school also provide some community benefits.

2. Evaluation Criteria Relevance Factor - We agree that each item of the site evaluation criteria does not have the same weight. However, we have not assigned relative values to the criteria because:

(a) The criteria developed to evaluate and rate school sites was divided into two parts--school and community criteria. The school site criteria contains those items which are considered pertinent from the school's standpoint, whereas the community site criteria contains those items which are considered pertinent from the community's viewpoint. Thus, there are items in both parts which appear to be identical or highly inter-related like "traffic" or "aesthetic value" and "natural beauty". However, review of the criteria...
for each of these items shows that they do not necessarily give more weight to these items in the evaluation table. This is because what is good for the school in terms of traffic and aesthetic value may be bad for the community in terms of traffic and natural beauty.

(b) Each item in the site selection criteria was reduced to a level that was well-defined, still pertinent to the project, and could be rated in a simple and straightforward manner. If items in the criteria shown in Appendix A of the draft site selection report were not reduced to this level, the rating procedure would become more cumbersome based on the increased number of variations that would apply to a given rating for an item. By reducing the items in the site selection criteria to the level mentioned, the rating for items such as "attractive nuisance", "aesthetic value", and "natural beauty" which are subjective in nature, becomes more objective.

(c) It is possible to weigh the evaluation criteria by assigning an appropriate numerical value to each item of the site selection criteria. However, the numerical values do not appear to remain constant on a statewide basis. For example, the use of SLU "conservation" rather than "agricultural" land or the use of SLU "agricultural" rather than "urban" land might be more desirable for a given area. Also, other criteria which would normally have a lower numerical rating than the item for SLU District may be higher for a particular area. By changing the numerical ratings for each report, it would appear as though we were "fudging" the outcome to favor a particular site.

(d) We find that our present criteria permits us to conduct an objective evaluation of the alternative sites and to reduce the number of potential sites to the "best" two or three sites without assigning relative numerical values. Our final evaluation of the "best" sites will include comparison of the differences between the sites in terms of school criteria, community criteria, cost considerations, and the responses from community organizations and governmental agencies.

3. Relationship Of Cost Considerations - The relationship of relative cost and site selection criteria are discussed on pages 44 and 45 of the December report.

4. Future High School - A facilities development plan for the Maui High Complex has been prepared and adopted by
the DOE for long-range planning purposes. This plan does not project the need for an additional high school in the up-country area during the period from now to 1995. In the event a high school site is required in the future, there may be a change in community feeling about locating a high school next to an intermediate school or the site study may indicate the high school should be located elsewhere. Also, the concept of joint-use of specialized facilities by the intermediate and high school and community is not as workable as it seems because the demands on the facilities are made at the same time. Finally, the preparation of the required environmental assessment for a future high school site would very likely be deficient if the need for the school cannot be substantiated at this time.

The scope of our site study is therefore limited to the evaluation and selection of an intermediate school site for 500 students as outlined in Chapter 1 of the report.

5. County General Plan - The general plan for Makawao, Pukalani, and Kula was adopted by Maui County on September 17, 1976.

6. Impact On Flora - We agree.

7. Community Input - The DOE obtained input from the community, school advisory council, and PTA's through public hearings before establishing the grade organizations for the Maui High Complex. These organizational decisions were finalized before the DOE requested that DAGS initiate the site selection study for the intermediate school. The alternative grade organizations such as K-6, 7-8, and 9-12 were evaluated by the DOE as follows:

"There may be considerations other than educational considerations in the alignment of some K-6 and 7-8 schools. From what is generally known about human growth and development and the ways in which schools are organized, the K-6, 7-8, 9-12 alignment seems appropriate. Programs are designed to give attention to the general characteristics of the various age groups in the realms of social development, educational and language development, physical development, and personal development. If attention is to be directed towards the unique needs of the various groups, there would not be any educational advantages in merging one segment with the next. This consideration is one of the predominant reasons for establishing a separate intermediate (7-8) school."

The DOE is also cognizant of the communities' acceptance of the proposed school organization as indicated by the following statement:
"We are aware of the concerns of some of the Kula parents relative to the proposed relocation of grades 7 and 8 from Kula Elementary School to the Makawao Intermediate School. We have initiated the effort to gain such support as necessary on a district-wide basis to enable us to eventually establish intermediate schools in all of the major areas to delimit our elementary schools to grades kindergarten through sixth. The primary focus of this effort will be on our attempt to convince our community people that the students in grades 7 and 8 will profit by being in schools which have only these two grades from the standpoint of educational programming and the concentrated effort to provide for the unique personal and social needs of these students. We hope to be able to gain the support of parents in this effort even among the parents in Kula."

Please note that DAGS solicited comments from various community organizations and individuals on the draft site selection report at the same time they were requested from governmental agencies like the university. These comments and recommendations and our responses will be included in the EIS document to be distributed by EQC before a site is recommended for approval by the Governor.
Mr. Hideo Murakami  
State Comptroller  
Department of Accounting & General Services  
Division of Public Works  
P. O. Box 119  
Honolulu, Hawaii 96810  

Dear Mr. Murakami:


The following comments are forwarded for your consideration:

1. Our Planning office responded to the Site Selection Study portion of the above document on July 7, 1976. We stated that the proposed Intermediate School should be located adjacent to the Eddie Tam Memorial Gym Complex in Makawao based on the Makawao-Pukalani-Kula General Plan, and due to the fact that County recreational facilities are available which would enhance a joint school-park complex leading to a more efficient and appropriate usage of public facilities.

2. A re-evaluation of the site selection aspects of the proposed project reaffirms our recommendation as to the location of the Intermediate School. While certain site development costs may be higher due to the need to improve vehicular circulation as a result of locating a school facility at the Gym site, these costs would be off-set by a lower acquisition cost, on-site development cost and, perhaps, operational costs such as bussing.

3. We do not concur with the suggested change from the intended 1977 opening date to a date between 1982-1985. We understand a 1977 date would be practically impossible, but, on the other hand, a definite date should be established with a preference to the earliest date of opening possible (see p. C-6).
4. We do not necessarily agree with Superintendent Charles Clark's evaluation of Site "D" adjacent to Eddie Tam Gym (see page c-8).

5. The Environmental Impact Statement has serious deficiencies as follows:

   a. The EIS is written to encompass all of the proposed sites. With ten possible school sites, it would seem there would be extensive differences in environmental concerns. The treatment of environmental concerns in a general manner, necessitated by the approach of covering all ten sites, does not seem proper. We would suggest the traditional approach of preparing an EIS after the selection of a site has been made would be more appropriate.

   b. (p. D-7) Reference to the trend of the up-country area towards a suburban community would not be accurate unless a qualification of equal importance is made that the County has identified and declared through its general plan that a large, select area of Kula has been designated for prime diversified agriculture, and, accordingly, the County has initiated the Kula Agricultural Park.

   c. (p. D-13) We feel additional commentary is desirable relative to the social aspects of the proposed project. Particularly, it would be desirable for the community to be aware of the social benefits of school facilities not only in the availability of such facilities but in programs, if any, by D.O.E. that may enhance the lifestyle and social-cultural pleasures of the people. Adult classes, musical programs, joint school-County cultural enhancement programs, community activities related to education and other programs should be emphasized if we are to adhere to the goal of "education as a continuing process".

6. What is the rationale for placing K-6 with intermediate? Do you foresee in the future merging of intermediate and high school? High schools with higher education? Pre-school with kindergarten, etc.? Are present groupings based on administrative considerations or on human growth and developmental patterns? In other words, are the established groupings "natural"?

Thank you for the opportunity to comment.

Sincerely,

ELMER F. CRAVALHO
Mayor

D-65
Honorable Elmer Cravalho  
Mayor  
County of Maui  
Wailuku, Maui, Hawaii 96793

Dear Mayor Cravalho:

Subject: Draft Site Selection Report and Environmental Impact Statement (EIS)  
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 14, 1977 review comments on the subject document. The following responses to your concerns are offered:

1. School-Park Complex - Maui County's preference for a joint school-park complex with the County's Eddie Tam Memorial Gym Complex based on the available recreational facilities and the Makawao-Pukalani-Kula general plan will be included in the Site Selection Report and EIS.

2. Costs - Our cost considerations in the draft report show that the Eddie Tam Site "D" would have the least cost in terms of land acquisition and on-site development, the highest off-site development cost based on our assumption that both Maha and Ukiu Roads need to be widened, and a total comparative cost which is $577,000 more than the least costly site. Since the comparative cost for Site D is dependent upon the need to provide access to the site, we request a response from your Public Works Department concerning the need to widen both Maha and Ukiu Roads.

Please note that the acreage standard for the proposed school site has been reduced by the Department of Education to 6½ acres for Sites B and D and to 8 acres for the other alternative sites. This will affect the comparative costs of the alternative sites. The new costs will be computed before distribution of the EIS.
3. Opening Date - The 1977 opening date set in 1972 was changed in 1975 to the 1982-1985 period and revised in 1976 to the 1983-1985 period. The opening date which is set by the Department of Education is subject to enrollment reaching the 400 minimum guideline for opening new schools. The present grades 7 and 8 enrollment in the Makawao-Pukalani-Kula area is approximately 300 students and is projected to increase to approximately 350 by 1982. The Department of Education's planning guideline permits opening of new schools with less than 400 students, provided the enrollment will reach 400 within three to four years. Present Department of Education projections indicate that the 400 total will be attained between 1985 and 1990.

4. Superintendent's Evaluation - No comments.

5. Environmental Impact Statement
   a. The draft EIS was prepared to encompass all of the alternative sites based on the provisions of Section 1:42 g. of the EIS regulations which states: "A rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid or reduce some or all of the adverse environmental benefits, costs, and risks shall be included in the agency review process in order not to prematurely foreclose options which might enhance 'environmental quality or have less detrimental effects'. We do not believe that preparation of an EIS only for the selected site would be in accord with the preceding guideline.

   b. The description of the environmental setting for the up-country area will be revised to include a discussion of the prime diversified agricultural lands designated in the Kula area by the County.

   c. The EIS will include the following commentary relative to the social aspects of this project: "The proposed school should enhance the lifestyle of the up-country area and contribute social benefits to the surrounding community in terms of providing adult classes, musical programs, joint school-county cultural enhancement program, etc."

6. Organizational Rationale - The Department of Education considers the K-6, 7-8, alignment to be appropriate based on the following:
   "There may be considerations other than educational
considerations in the alignment of some K-6 and 7-8 schools. From what is generally known about human growth and development and the ways in which schools are organized, the K-6, 7-8, 9-12 alignment seems appropriate. Programs are designed to give attention to the general characteristics of the various age groups in the realms of social development, educational and language development, physical development, and personal development. If attention is to be directed towards the unique needs of the various groups, there would not be any educational advantages in merging one segment with the next. This consideration is one of the predominant reasons for establishing a separate intermediate (7-8) school."

Respectfully,

HIDEO MURAKAMI
State Comptroller
Mr. Hideo Murakami  
State Comptroller  
Dept. of Accounting and  
General Services  
P. O. Box 119  
Honolulu, Hi 96810  

Dear Mr. Murakami:

Re: Draft Site Selection Report and  
Environmental Impact Statement (EIS)  
Makawao-Pukalani-Kula Intermediate School

In reference to your letter of June 8, 1977 regarding the subject, the school Site "D" should be provided with improved accesses to accommodate traffic from both the Pukalani direction and Makawao proper.

The Makani Street right-of-way should be improved to 44' from Makawao Avenue to a point where a new access road, improved as above, should be constructed to the school site.

Ukiu and Maha streets should also be widened to 44' and an access road provided to the school site.

Very truly yours,

WAYNE UEMAE  
Director of Public Works

NOTE: DAGS June 8, 1977 letter was to Mayor Cravalho.

D-69
JUL 1 1977

Mr. Wayne Uemae  
Director  
Department of Public Works  
County of Maui  
200 South High Street  
Wailuku, Maui, Hawaii 96793

Dear Mr. Uemae:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  

Thank you for your June 23, 1977 response to our inquiry on the access requirements for Alternative Site "D" in Makawao.

We will indicate that access to the site from Makani Road and Maha Road must be provided as shown on the attached plan.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

HS:jnt  
Attachment
February 17, 1977

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

Dear Mr. Murakami:

Subject: Draft Site Selection Report and Environmental Impact Statement, Makawao–Pukalani–Kula Intermediate School, Makawao, Maui

Thank you for the opportunity to review the subject report.

We find no major addition or corrections are needed. However, we question the ability of the existing 6-inch waterline on Makani Road to adequately serve the fire protection needs of Sites E and F; an 8-inch waterline being preferable and perhaps required. Likewise, for the proposed 6-inch on Laie Drive for Site G.

We have no further comment at this time.

Sincerely,

Tatsumi Imada, Acting Director

KS/ao

"By Water All Things Find Life"
Dear Mr. Imada:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 17, 1977 review comments on the subject document. We will revise our study to indicate the following:

1. Replacement of the existing 6" waterline along Makani Road with an 8" waterline to service Sites E and F.

2. Installation of an 8" waterline in lieu of a 6" waterline along Laie Drive for Site G.

Very truly yours,

[Signature]

RIKIO NISHIOKA
State Public Works Engineer

HS:iy

D-73
February 17, 1977

Dept. of Accounting & General Services
Division of Public Works
P. O. Box 119
Honolulu, Hi 96810

Attention: Mr. Hideo Murakami

Dear Mr. Murakami:

Subject: Draft Site Selection Report and Environmental Impact Statement
Makawao-Pukalani-Kula Intermediate School

The proposed sites as shown in the subject document will pose no special hardship if indeed gas service will be required at this school. Other than this I have no further comments concerning this report.

Thank you for the opportunity to provide comments on your project.

Very truly yours,

Jerome Sano
Branch Manager

JSS/anf

Maui - 4/77

D-74

(808) 877-8557/CABLE GASCO/TELEX 7430282
Dear Sir:

Subject--Draft Site Selection Report & Environmental Impact Statement on Makawao-Pukalani-Kula Intermediate School

We are extremely disappointed that so much State money has been spent to study alternative sites. We still feel that as was the case in February, 1972, there is no real alternative to Site D at the Eddie Tam Gym area. As stated in Mr. Charles Clark's letter, it is apparent that there is no alternative to Site D.

This site was chosen by the DOE and the Department of Accounting and General Services informed on November 6, 1972.

In our opinion, expanding the site study has only been a waste of time and money, as the Makawao/Pukalani General Plan has already set aside the Eddie Tam parcel for the school site.

Our major concern with the selection of Site D is the reduction in acres required for purchase. We feel that the nine-acre minimum is unrealistic and shows short term planning. As discussed numerous times by the people of the community and as pointed out in Doak Cox's letter to you, it is unrealistic to think that there will not be a need in the future for an up-country high school. The most unrealistic plan would be to purchase a larger site, such as D plus E, as originally appropriated.

Some additional points to be brought out are:

1. DRAINAGE THROUGH SITE D

   Drainage through Site D should be a major one. While water does drain through the Makawao side border, it is adequately handled through a small diversion ditch, which can be easily widened and grassed at low cost.
2. PEDESTRIAN ACCESS THROUGH SITE D

I can think of fewer, safer accesses than through the park.

3. STATE LAND USE AND POSSIBILITY BEING ZONED FOR AGRICULTURE

It is unrealistic to say that this particular parcel would ever be used for major agriculture purposes, as most of the adjacent land is being developed into two-acre lots.

4. RAINFALL (Site D "poor" and Site H "good")

It is obvious that whoever made the evaluation has not lived in the area, as Site H infrequently has intensity rains, which are gully washers, while Site D has the most normal, in fact pleasant rainfall pattern.

5. OPENING DATE

As stated in your report, the opening was changed from 1977 to tentatively between 1982 and 1985. We feel this is an undesirable change, as it has had absolutely no community input. The people who have children in the up-country system, feel that there is an urgent need to progress as rapidly as possible and that the constant delays and red tape from the start of the project in 1972, are unwarranted.

Thank you for allowing us the opportunity to comment.

Sincerely,

L. D. MacCluer, Chairman
School Site Committee
Makawao School PTA

LDM/sj

xc: William D. Tavares
    Janice Kinoshita
    Darrel Oishi
    Susan Halas (Maui News)
Mr. Hideo Murakami  
State Comptroller  
Dept. of Accounting & General Services  
P. O. Box 119  
Honolulu, Hawaii 96810  

Dear Sir:

Subject--Draft Site Selection Report & Environmental Impact Statement on Makawao-Pukalani-Kula Intermediate School

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Thank you for allowing us the opportunity to comment.

Sincerely,

L. D. MacCluer, Chairman
School Site Committee
Makawao School PTA

LDM/sj
xc: William D. Tavares
    Janice Kinoshita
    Darrel Oishi
    Susan Halas (Maui News)
Mr. L. D. MacCluer  
Chairman  
School Site Committee  
Makawao School P.T.A.  
P. O. Box 398  
Makawao, Maui, Hawaii 96768

Dear Mr. MacCluer:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 7, 1977 letter on the subject document. Our response to the comments and concerns expressed in your letter are attached.

Very truly yours,

IKIO NISHIOKA  
State Public Works Engineer

HS:nk 1-1  
Attachment  
cc: Mr. C. Clark  
Mr. D. Oishi  
Maui S.A.C.
RESPONSES TO COMMENTS
SUBMITTED BY
MAKAWAO SCHOOL P.T.A. SCHOOL SITE COMMITTEE
LETTER DATED FEBRUARY 7, 1977

1. State Money Spent To Study Alternative Sites

A site selection study which evaluates alternative sites and an EIS are required before the State can expend capital improvement funds to purchase land and develop the proposed school. Specifically, the statutory requirements of Chapter 343, HRS, requires the preparation and acceptance of an environmental impact statement before public funds are expended. The present EIS regulations which became effective on June 2, 1975, requires "a rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, ..."

2. Alternative Sites

We disagree with your comment that "there is no real alternative to Site D at the Eddie Tam Gym area." The first draft site selection study of October 20, 1972 rated the Pukalani Site B and the Eddie Tam Site D about equal. The comparative cost data showed Site D to be $91,000 less than Site B. However, our revised site selection study of December 1976 rates seven (7) sites better in terms of School Site Criteria and two (2) sites better in terms of Community Site Criteria than Site D. This is shown in Table 6 of the report. Further, the study shows that three (3) alternative sites would cost $408,000 to $577,000 less to develop than Site D. Based on the above, we conclude that there are reasonable alternatives to Site D which should be evaluated.


This letter states, "We note that Table 6 (Summary of Alternative Sites) does not appear to particularly favor Site D.", and "The draft study also indicates that Site D would be relatively expensive to develop ..." Since the Maui School District has favored the Eddie Tam Site D for some years, the DOE requested that DAGS further investigate the feasibility of reducing the off-site development cost of the Eddie Tam Site D in the final evaluation.

4. Site Chosen By DOE

The first draft site selection report recommending selection of Alternative Site D adjacent to Eddie Tam Center was submitted by DAGS to DOE on October 20,
1972. The DOE concurred with this recommendation by letter dated December 7, 1972 and a draft EIS was subsequently prepared and distributed on February 1, 1973. However, it was never completed because of several concerns raised regarding impact of the proposed school site on land use policies and agriculture which could not be resolved at that time. Accordingly, the original draft site selection report and EIS could not be finalized for the Governor's approval.

5. Site Study A Waste Of Time And Money

Please refer to Item 1.

6. Makawao/Pukalani General Plan

The fact that a school site is shown on the County General Plan does not meet the requirements for a site selection study or an EIS. Please note that although this is an important factor, it is one of 33 items evaluated in the report.

7. Acreage Requirements

The DOE has informed us that the acreage standards for schools on a statewide basis have been revised. This new standard will require a reduction in the minimum site size from 9 acres to 8 acres for the proposed intermediate school. Alternative sites next to a park will require a further reduction to 6-1/2 acres since the adjacent park facilities will be available for school use.

Although it will be probably much cheaper to buy a high school site now rather than sometime in the future, the DOE does not project the need for an Up-Country high school in their current long-range plans which extend to the year 1995. It would therefore be more prudent for the State to spend its limited funds on the many more urgent needs it now faces. In the event a high school site is required in the future, there may be a change in community feeling about locating a high school next to an intermediate school or the site study may indicate the high school should be located elsewhere. Further, the concept of joint-use of specialized facilities by the intermediate and high school and community is not as workable as it seems because the demands on the facilities are made at the same time.

ADDITIONAL POINTS

1. Drainage Through Site D

The U. S. Army Corps of Engineers has indicated that the area is subject to overland flood flows. Accord-
ingly, our draft report includes a cost item for piping the storm runoff from the Eddie Tam Park through the proposed site to the makai gully. A closed drainage system is preferable to a grassed open ditch to minimize erosion, land wastage and maintenance costs; to facilitate access; and for student safety. The estimated diameter of the drainage line is 4 feet.

2. Pedestrian Access Through Site D

The proposed pedestrian and vehicular access to Site D shown on page B-14 of the draft report will be revised from Ukiu and Maha Roads to Makani Road. This will require construction of a new road and widening of Makani Road to accommodate the school traffic. Several requests were made to the Maui County Department of Public Works for verification that these improvements will meet their traffic requirements. However, we have not received any response to our requests.

3. State Land Use And Possibility Being Zoned For Agriculture

Site D was previously cultivated with pineapple and continues to be designated "Agriculture" by the State Land Use Commission. Selection of this site will require the redesignation of the land from "Agriculture" to "Urban" to facilitate construction of the school. Since there are alternative sites which are already zoned urban, the U.S.D.A. Soil Conservation Service and the State Department of Agriculture have recommended against selecting a site located in an agricultural district.

It should be noted that development of 2-acre lots does not preclude agricultural uses. The State Land Use Commission Rules and Regulations allow subdivision of agricultural zoned lands into minimum lots of one acre.

4. Rainfall

The rainfall evaluation criteria is contained on pages A-7 and A-8 of the draft report. The reason for this criteria is that the higher rainfall areas will hamper the physical education programs and outdoor activities. It will also cost the State more money to construct covered walkways and playcourt. The evaluation for rainfall in this case was based on the median annual rainfall map shown on Figure 27 of the draft report. This figure was extracted from the "Makawao-Pukalani-Kula General Plan Report" prepared by Donald Wolbrink and Associates, Inc. for Maui County.
5. **Opening Date**

The opening date for new schools is set by the Department of Education (DOE) based on enrollment projections and the following guidelines:

a. Minimum design enrollment for an intermediate school is 400 students.

b. Schools may open below the minimum enrollment if the minimum enrollment will be reached within 3-4 years.

These guidelines were set by the DOE to ensure that enrollment levels will be adequate to support the desirable educational programs and to justify expenditures for land acquisition, classrooms, and support facilities. The latest enrollment projections for the intermediate school are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975 (Actual)</td>
<td>309</td>
</tr>
<tr>
<td>1980</td>
<td>305</td>
</tr>
<tr>
<td>1985</td>
<td>370</td>
</tr>
<tr>
<td>1990</td>
<td>430</td>
</tr>
<tr>
<td>1995</td>
<td>500</td>
</tr>
</tbody>
</table>

The above indicates that the 400 minimum enrollment will not be reached until 1987 or 1988. Applying the above guidelines, the DOE has now informed us that the opening date should be changed from 1982-1985 to 1983-1985. Since obtaining community input and/or keeping the community informed of DOE plans is the responsibility of the various School Districts and School Advisory Councils, copies of this letter and your letter have been sent to them for their information.

We regret that the people who have children in the Up-Country system feel that the delays and red tape from the start of this project in 1972 are unwarranted. However, we believe that the reasons provided in this response should answer their concerns.
State of Hawaii  
Dept. of Accounting & General Services  
P.O. Box 119  
Honolulu, Hawaii 96810

Attention: Mr. Harold Sonomura, Public Works Division

Re: Draft Site Selection Report and Environmental Impact Statement  
Makawao-Fukalani-Kula Intermediate School  
Makawao, Maui, Hawaii

Dear Sir:

Pursuant to your request on the above subject matter, we respond in the following manner:

1. As First Vice-President of the Kula Elementary PTA, appointed by our PTA President to look into this EIS report, it is the feeling of some of our PTA members that they do not want an intermediate school in the up country area.

2. While the wishes of the members are not to have an intermediate school, I would like to state that this does not necessarily mean that the majority are against this plan.

3. One important consideration that is foremost in the minds of our members is that plans be made for a High School in the up country area instead of an intermediate school.

4. We request that if an intermediate school is going to be built regardless of the feelings of the Kula community, that the site selected be one of an area large enough to accommodate a high school in the future.

5. At the meeting of the Maui District School Advisory Council held on Monday, February 28, 1977, I gathered that Makawao School seemed to be solely interested in the intermediate school, while my conversation with a representative of the Fukalani School indicated that they too, would like to see a high school built in this area.

We hope that the above input into this project be given serious thought and consideration before definite steps are taken.

Yours truly,

Robert M. Monden  
1st Vice President  
Kula Elementary School PTA

March 1, 1977
Mr. Robert Monden  
First Vice President  
Kula School PTA  
P. O. Box 77  
Kula, Maui; Hawaii 96790  

Dear Mr. Monden:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  

Thank you for your March 1, 1977 review comments on the subject document. We offer the following responses to your concerns:

Items 1 and 2 - We have referred to the DOE the concern that some of the PTA members do not want an intermediate school in the up-country area. They have provided us with the following response to this concern:

"We are aware of the concerns of some of the Kula parents relative to the proposed relocation of grades 7 and 8 from Kula Elementary School to the Makawao Intermediate School. We have initiated the effort to gain such support as necessary on a district-wide basis to enable us to eventually establish intermediate schools in all of the major areas to delimit our elementary schools to grades kindergarten through sixth. The primary focus of this effort will be on our attempt to convince our community people that the students in grades 7 and 8 will profit by being in schools which have only these two grades from the standpoint of educational programming and the concentrated effort to provide for the unique personal and social needs of these students. We hope to be able to gain the support of parents in this effort even among the parents in Kula."

Item 3 - The Kula PTA’s desire for an up-country high school in lieu of an intermediate school is acknowledged. However, the DOE’s current long-range facilities plan to 1995 for the Maui High Complex does not project the need for an up-country high school. Therefore, it would not be prudent to select a future high school site at this time. Planning beyond 1995
may continue to show that the school may not be needed or should the site be selected at this time, the site may be improperly located in relation to future development of the up-country area. Also, the preparation of the required environmental assessment for a future high school site would very likely be deficient if the need for the school cannot be substantiated at this time.

Item 4 - We do not believe that the proposed intermediate school site should include space for a future high school based upon the reasons provided in item 3 above. In the event that a high school becomes necessary, the DOE does not foresee the need to locate the high school near the intermediate site. This is because if the schedules for the intermediate and high schools run concurrently, the concept of joint use of specialized facilities is not as workable as it seems since the demands on the facilities are being made at the same time.

Item 5 - We have received comments on the draft report from the Makawao PTA but received no response from the Pukalani PTA. The Makawao PTA has supported the proposed intermediate school and also requested that adequate land be purchased for a future high school.

Please be informed that the acreage standard for the proposed school site has been reduced by DOE to 6½ acres for Sites B and D, which are school-park complexes and to 8 acres for the other alternative sites.

Your comments and recommendations will be considered and the site selection report and EIS will be circulated for review by the Environmental Quality Commission before a site is recommended to the Governor for approval.

Very truly yours,

[Signature]

RIKIO NISHIOKA
State Public Works Engineer

cc: Mr. C. Clark
Mr. D. Oishi
Mr. Y. Matsumoto, Maui District S.A.C.
Dear Sirs:

Would appreciate a copy of the draft report and impact statement on the alternative Makawao School proposed sites.

Would also like to recommend that a public hearing be held at the Eddie Tam Community Center soon on this matter.

Most of the people in this community have supported the Makawao School PTG in favoring Site D adjacent to the Eddie Tam Memorial Gymn. In fact, the people of this community and the Parent Teacher Association of Makawao School were primarily responsible for the original appropriation of the $300,000 for the Eddie Tam Site; which was later lost through inaction by the Legislature.

The community has very positive feelings about this matter and would welcome the opportunity to meet with your representatives as well as our legislators and members of the DOE. I would suggest an early meeting so we can apprise our legislators the need for nailing down this matter once and for all with the proper legislation.

Sincerely,

Copies to:

Maui Legislators
WM D Tavares, PRIN MAK SCHOOL
Doug Macluer, MAK SCHOOL PTA
Makawao Recreational Council
Makawao Ranch Ag'ies Com. Asn.
Mr. Emil W. Balthazar  
103 Maha Road  
Makawao, Maui, Hawaii 96768  

Dear Mr. Balthazar:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Enclosed is a copy of the subject report as requested by your letter of February 3, 1977.

In regards to your request for an early meeting, we would like to inform you that the Maui District School Advisory Council has scheduled a meeting to discuss the project on February 28, 1977, 7:30 p.m. at Pukalani School. Representatives of the Department of Education and Accounting and General Services will be there.

The community support for Site D next to the Eddie Tam Park is acknowledged and will be considered in the selection of the school site.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

cc: Mr. C. Clark  
Mr. D. Oishi  
Mr. Y. Matsumoto, Maui District S.A.C.
Dear Sir:

As a parent in the Makawao Community, I would like to express my preference of sites under study for the proposed Upcountry Intermediate School. I feel that the land adjacent to the Eddie Tam Memorial Park is ideally suited for two main reasons.

1. Extensive recreational facilities, that is, gymnasium, baseball field, football, soccer field, restrooms are already available for use by intermediate children which would be a tremendous savings to the State later on and of obvious benefit to the students.

2. This location seems fairly central to the feeder schools.

We strongly urge you to weigh these factors in making your decisions.

Yours truly,

[Signature]

Name

P.O. Box 143

Address

Haalulua, Hawaii

96787

D-89
The preceding letter from Mr. L. Douglas MacCluer dated February 16, 1977 was also received from the following individuals:

Mrs. Charmaine Armitage
Mr. Lucio Calina
Mrs. Patricia Takamori
Mr. Daniel Dancil
Mr. Harold Gouveia
Mrs. Dorothy L. Hunt
Mrs. Loretta H. Leong
Mr. Eugene A. Librano, Sr.
Mrs. Jeannette M. Brown
Mr. Santiago Magallanes
Mr. Guillermo Barut
Mr. Erin Starr
Mr. & Mrs. Charles Rapozo
Mrs. Jeanette K. Bills
Mr. & Mrs. Ronald G. Ruettgers
Mrs. Merle Medeiros
Mrs. Gayle St. John

48 Alana Pl., Makawao
921 Olioli St., Haliimaile
1071 Ulele Pl., Makawao
1193 Freitas Pl., Makawao
1189 Freitas Pl., Makawao
P.O. Box 368, Makawao
P.O. Box 646, Makawao
356-C Ukiu Rd., Makawao
643 Hoolea St., Makawao
227 Alalani St., Pukalani
915 Maile St., Haliimaile
P.O. Box 33, Makawao
50 Alana Pl., Makawao
67 Makalani Pl., Makawao
RR1 Box 138, Haiku
1080 Mahanani Pl., Makawao
3441 Baldwin Ave., Makawao

The following response to Mr. L. Douglas MacCluer was also sent to the above individuals.
Mr. L. Douglas MacCluer  
P. O. Box 143  
Haliimaile, Hawaii 96787

Dear Mr. MacCluer:

Subject: Draft Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your February 16, 1977 letter expressing your support for locating the proposed intermediate school adjacent to the Eddie Tam Memorial Park.

Your comments will be considered in the final evaluation and recommendation of a site for the Governor's approval.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

HS: nk
APPENDIX III

REVIEW COMMENTS AND RESPONSES
PUBLIC REVIEW PHASE
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 15TH AIR FORCE WING (PACAF)
HICKAM AIR FORCE BASE, HAWAII 96853

15 NOV 1977

REPLY TO
ATTN OF: DEEV (Mr. Nakashima, 4491831)

SUBJECT: Staff Study on the Site Selection and Environmental Impact Statement
(EIS) for an Intermediate School for the Makawao-Pukalani-Kula Area
Makawao, Maui, Hawaii

TO: Governor, State of Hawaii
(Office of Environmental Quality Control)
550 Halekauwila St.
Room 301
Honolulu, Hawaii 96813

1. This headquarters has reviewed the subject Staff Study and EIS
and has no comment to render relative to the proposed project.

2. We greatly appreciate your cooperative efforts in keeping the Air
Force apprised of your project and thank you for the opportunity to
review the document.

ROBERT Q. K. CHING
Chief, Engineering, Construction and Environmental Planning Div
Directorate of Civil Engineering

Cy to: Dept. of Accounting and General Services
1151 Punchbowl St.
Honolulu, Hawaii 96813
w/o atch
Director
Department of Accounting and General Services
State of Hawaii
1151 Punchbowl Street
Honolulu, Hawaii 96813

Dear Sir:

We have no further comments on the Staff Study of the Site Selection for an Intermediate School for the Makawao-Pukalani-Kula Area. Our comments of 14 July 1976 have been incorporated to our satisfaction.

We assume that you will be in contact with the State Historic Preservation Officer in the interest of preserving historic resources within the State of Hawaii.

Thank you for the opportunity to review the report.

Sincerely yours,

WM J. MATTHEWS
Acting Chief, Engineering Division

Cy Furn:
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813
Office of the Governor
State of Hawaii
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Thank you for the opportunity to review the inclosed Environmental Impact Statement for an Intermediate School for the Makawao-Pukalani-Kula Area, Maui, Hawaii. A review has been conducted and there are no comments. The document is returned as requested.

Sincerely,

CARL P. RODOLPH
Colonel, CE
Director of Facilities Engineering

Copy furnished:
Department of Accounting and General Services
1151 Punchbowl Street
Honolulu, HI 96813

1 Incl
As stated
State of Hawaii  
Environmental Quality Commission  
Office of the Governor  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813

Gentlemen:

A Staff Study on the Site Selection and Environmental Impact Statement for an Intermediate School for the Makawao-Pukalani-Kula Area Maui, Hawaii

The Environmental Impact Statement for the subject project has been reviewed and the Navy has no comments. As requested by your letter of 11 October 1977, the EIS is returned.

Thank you for the opportunity to review the EIS.

Sincerely,

[Signature]

R. P. Mystedt  
CAPT, CDS, USN  
DISTRICT CIVIL ENGINEER  
BY DIRECTION OF THE COMMANDANT

Encl
Mr. Hideo Murakami  
Department of Accounting and General Services  
Division of Public Works  
P. O. Box 119  
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Site Selection and Environmental Impact Statement for an Intermediate School for the Makawao-Pukalani-Kula Area, Maui

We have reviewed the subject EIS and have the following comment:

Of the three sites under final selection, we recommend Site B. This would not involve taking land out of agricultural use and is already zoned urban. Sites D and F are not presently being used for agricultural produce, but are within the area designated as prime agricultural land.

Thank you for the opportunity to review this document.

Sincerely,

Jack P. Kanalz  
State Conservationist

cc: Office of Environmental Quality Control  
550 Halekauwila St., Rm. 301  
Honolulu, Hawaii 96813
Mr. Jack P. Kanalz  
Soil Conservation Service  
U.S. Department of Agriculture  
P. O. Box 50004  
Honolulu, Hawaii 96850

Dear Mr. Kanalz:

Subject: Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

Thank you for your November 22, 1977 comments on the subject study. We will consider your recommendation of Site B in the final site selection.

Very truly yours,

RIKIO NISHIOKA  
State Public Works Engineer

HS:jnt
December 1, 1977

Mr. Maurice H. Taylor
Field Supervisor
U. S. Department of the Interior
Fish and Wildlife Service
Division of Ecological Services
300 Ala Moana Blvd.
Room 5302
Honolulu, HI 96813

SUBJECT: Comments on the Site Selection Report and Environmental Impact Statement for an Intermediate School for the Makawao-Pukalani-Kula Area, Maui

Dear Mr. Taylor:

We have received your letter of November 15, 1977 regarding the above subject.

Please be informed that comments or acknowledgment of no comments on environmental impact statements should be sent to the accepting authority and proposing agency for agency actions. In this case, the accepting authority is the Governor (Office of Environmental Quality Control) and the proposing agency is the Department of Accounting and General Services. We are forwarding your letter to the Office of Environmental Quality Control and a copy to the Department of Accounting and General Services.

If you have any questions regarding this matter, please do not hesitate to contact us. Your cooperation and participation in the EIS process is greatly appreciated.

Yours truly,

Allen Bremner
Chairman

cc: OEQC, BAGS, with incoming

D-99
Reference: ES

November 15, 1977

Environmental Quality Commission
State of Hawaii
550 Halekauwila Street, Rm. 301
Honolulu, Hawaii 96813

Re: Site Selection
and EIS for
Intermediate School
for the Makawao-
Pukalani-Kula Area,
Maui

Dear Sir:

We have reviewed the referenced document dated September 1977, concerning site selection for construction of the proposed intermediate school.

We do not anticipate any significant adverse impacts to the biological resources of the area, providing measures suggested for erosion control and sewage treatment are instituted.

Thank you for the opportunity to comment on this project.

Sincerely yours,

Maurice H. Taylor
Field Supervisor

cc: HA
HDF&G
MEMORANDUM

To: Governor (Office of Environmental Quality Control)  
Subject: Site Selection and EIS for Intermediate School for the Makawao-Pukalani-Kula Area, Maui

The Department of Agriculture has no additional comments to offer on the subject environmental impact statement.

Thank you for the opportunity to review and comment.

John Farias, Jr.
Chairman, Board of Agriculture

cc: Department of Accounting and General Services
Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813  

Gentlemen:  

Intermediate School for the  
Makawao-Pukalani-Kula Area, Maui  

Thank you for sending us a copy of the "Intermediate School for the Makawao-Pukalani-Kula Area" Maui, Hawaii, Environmental Impact Statement. We have received the publication and have no comments to offer.

Yours truly,

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

Enclosure
October 19, 1977

Ref. No. 4751

TO: The Honorable Hideo Murakami, State Comptroller
Department of Accounting and General Services

FROM: Hideto Kono, Director

SUBJECT: Staff Study on the Site Selection and Environmental Impact
Statement for an Intermediate School for the Makawao-Pukalani-
Kula Area, Maui, September 1977

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

We are pleased to note that our previous comments made in regard to
the Draft Site Selection Report and EIS for this project were addressed in this
document.

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

cc: Dr. Richard Harland

D-103
Environmental Quality Commission
550 Halekauwila St.
Honolulu, HI 96813

Gentlemen:

We have reviewed the EIS for an intermediate school in or near Pukalani, Maui.

We have no comments to add to our February 18 letter to the Comptroller.

Very truly yours,

W. Y. THOMPSON
Chairman of the Board
MEMORANDUM

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

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

SUBJECT: Site Selection and Environmental Impact Statement for Intermediate School for the Makawao - Pukalani - Kula Area, Maui

Subject EIS has been reviewed for its impact on departmental programs.

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

Thank you for the opportunity to review and comment.

Andrew I. T. Chang
DIRECTOR

Attachment
cc: Governor (Office of EQC)
    DGAS
MEMORANDUM

To: Planning Branch, Division of Public Works
   Department of Accounting & General Services

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Intermediate School
   for the Makawao-Pukalani-Kula Area, Maui

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we have no objections to this project.

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

cc: Environmental Quality Commission
    Office of Environmental Quality Control
MEMORANDUM

TO: Hideo Murakami, Comptroller
    Department of Accounting and General Services

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

SUBJECT: Site Selection and EIS for an Intermediate School
    for the Makawao-Pukaloni-Kula Area, Maui

Please find attached a copy of the comments made by the
Department of Transportation on the subject EIS. Please append this
to our correspondence of November 7, 1977 concerning this project.

Thank you for your attention on this matter.
Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Site Selection and Environmental Impact Statement for Intermediate School for the Makawao-Pukalani-Kula Area

Thank you for giving us the opportunity to review the above-captioned statement. We have the following comments to make:

1. Sites A, C, D, E, F, and G are removed from the Haleakala Highway Realignment Project and thus lessen traffic conflicts in the area during the development of the site.

2. The proximity of Sites B, C, H, I, and J to the highways may result in adverse noise impacts to the school.

3. We note that on pages 19 and B-26, the Proposed Highway Bypass is above the new booster pump site and facilities. Our preliminary plans show the alignment to be at a lower elevation and hence, below these facilities. A map from our project report is attached for your reference.

Sincerely,

E. ALVEY WRIGHT
Director

Enclosure
Honorable Ryokichi Higashionna  
Acting Director  
Department of Transportation  
State of Hawaii  
Honolulu, Hawaii  

Dear Dr. Higashionna:  

Subject: Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  
Ref: STP 8.4573  

Thank you for your November 23, 1977 comments on the subject project. We offer the following responses to your concerns:  

1. We concur.  
2. The proximity of the sites to a major highway is evaluated in terms of "highway noise" and will be considered in the final selection.  
3. The proposed highway alignment will be revised on pages 19, B-26, and B-27 to reflect your preliminary plans.  

Very truly yours,  

HIDEO MURAKAMI  
State Comptroller  

D-110
MEMORANDUM

TO:        Hideo Murakami, Comptroller
           Department of Accounting and General Services

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

SUBJECT:   Site Selection and Environmental Impact Statement for an
           Intermediate School for the Makawao-Pukalani-Kula Area, Maui

November 7, 1977

We have reviewed the subject document and offer the following comments on the site selection and EIS sections in the same order.

Site Selection

1. We note that the Department of Education provided the estimated enrollment projections for the service area (p. 5). There is no indication given as to how these figures were derived. We suggest inclusion of the population growth/distribution estimates on which the enrollment figures are based. We are aware that the Makawao district's population has increased an estimated 16.8% since 1970 (DPED's State of Hawaii Data Book, 1976, p. 13). Will this increase affect the proposed opening date of the intermediate school? Is this increase reflected in the DOE estimates?

2. The estimated cost tables on pages 37, 39, and B-15 do not match. The total for site D, page 39, adds up to $1,420,600, not $2,183,200. We suggest a revision in text to show the correct figures, especially for site D.

Environmental Impact Statement

1. The section on the relationship of the proposed action to land use plans, policies, and controls for the affected area should include a discussion on the degree to which each of the proposed school sites would be in consonance with the stated policy of preserving and conserving productive agricultural lands (State Environmental Policy Act, Chapter 344 Hawaii Revised Statutes section 344-4 (5)B).
2. **Probable Impact of the Proposed Action on the Environment.**

   a) The potential for soil erosion during the construction of the school and potential mitigation measures should be discussed. Does the possibility for soil erosion vary from site to site?

   b) The type and amount of traffic that would be generated by the school should be estimated. Will this traffic cause impacts to the road users and nearby residences/establishments?

   c) The impacts associated with the potential removal of agricultural lands should be included within this section. This could include a loss of long-term productivity of these sites from an agricultural perspective.

3. Has the use of alternative energy sources been considered for providing power/hot water for the school. This design incorporation would lessen the use of non-renewable natural resources.

4. There should be a discussion of unresolved issues and how such issues will be resolved prior to commencement of the action, or what overriding reasons there are for proceeding without resolving such problems (EIS Regs. Section 1:42 n).

5. The EIS should contain a list of necessary permits and their present status (EIS Regs. Section 1:42 o).

As of this date we have received a total of nine (9) comments as indicated on the attached list. At the end of the review period we will forward to you any additional comments which we receive from reviewers of this EIS.

As allowed for in the EIS Regulations, Section 1:62 the accepting authority can consider responses made by your agency (to reviewer comments) after the fourteen day period. We will go with this option and consider responses made after the fourteen day period. The response to comments should include:

   a) a point by point discussion of the validity, significance, and relevance of the comments; and

   b) a discussion as to how each comment was evaluated and considered in planning the proposed action.

The response should endeavor to resolve conflicts, inconsistencies, or concerns.

We have not attempted to summarize the comments of other reviewers. Instead, we recommend that each comment be given careful consideration by yourself.
We trust that our comments will be helpful to you in the preparation of the revised statement. Thank you for the opportunity to review this EIS.

Attachment

D-113
List of commentors for the Site Selection and Report and EIS for Intermediate School for the Makawao-Pukalani-Kula Area, Maui:

**State Agencies**

<table>
<thead>
<tr>
<th>Department</th>
<th>Comment Date</th>
</tr>
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<tbody>
<tr>
<td>Department of Agriculture</td>
<td>October 17, 1977</td>
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<tr>
<td>Department of Land and Natural Resources</td>
<td>October 13, 1977</td>
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<tr>
<td>Department of Planning and Economic Development</td>
<td>October 19, 1977</td>
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<tr>
<td>Department of Defense</td>
<td>October 14, 1977</td>
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<tr>
<td>Department of Social Services and Housing</td>
<td>October 18, 1977</td>
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**Federal**

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<td>U.S. Army Corps of Engineers</td>
<td>October 27, 1977</td>
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<tr>
<td>U.S. Navy</td>
<td>October 19, 1977</td>
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<tr>
<td>U.S. Army-DAFE</td>
<td>October 19, 1977</td>
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**Maui County**

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<th>Office</th>
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<tbody>
<tr>
<td>Mayor's Office</td>
<td>October 31, 1977</td>
</tr>
<tr>
<td>(includes general comments)</td>
<td></td>
</tr>
</tbody>
</table>
Mr. Richard L. O'Connell  
Director  
Office of Environmental Quality Control  
550 Halekauwila Street, Room 301  
Honolulu, Hawaii 96813  

Dear Mr. O'Connell:  

Subject: Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  

Thank you for your November 7, 1977 comments on the subject project. The reason for this delay in responding to your comments was the need to verify the school enrollment data with the DOE. We have reviewed your concerns and offer the following responses:

Site Selection  

1. The DOE's enrollment projections for the service area were based on population projections, housing developments, birth statistics, and student migration data. We believe that the inclusion of only population figures in the report will not be significant and may be misleading and confusing to the readers. The DOE has projected that the student enrollment in the Maui High Complex will increase approximately 30 percent in the next 20 years and the proposed intermediate school opening date is based on this projection.  

2. The cost figures on Pages 39 and B-15 will be revised to reflect the correct figures on Page 37.

Environmental Impact Statement  

1. We have included the following additional discussion of the impact of each school site on the State's policy of preserving agricultural lands on Page D-10 of the EIS:

D-115
"The alternative sites C, D, E, & H, I and J are within the State Land Use Agriculture District. Since these sites will require an amendment to the land use district boundary, the State could deny any reclassification action and retain the lands in the agriculture district. In terms of agricultural productivity, all of the foregoing sites except Sites C and J are rated 'C' which indicates average agricultural productivity. Site C is rated as having a 'D' or below average productivity, and Site J is rated 'B' or above average in productivity.

The impact of developing one of the alternative sites will be minimal, since the school will remove only 9-acres of agricultural land. The development of the school, however, may result in secondary impacts on agricultural lands by encouraging additional housing developments in the surrounding area. It should be noted that Sites A and B are within the urban district and will not have a significant impact on agriculture."

2. Probable Impact of the Proposed Action on the Environment

The following statements will be included on Pages D-13, D-16 and D-17 of the EIS:

a) The school construction activity may create some potential soil erosion concerns, however, the soil survey interpretations for all sites show that the soils are well drained. This fact, plus the low median annual rainfall of 30 to 40-inches reduces the possibility of adverse soil erosion during construction periods. The DALS standard specifications for environmental protection which is included in Appendix I will be strictly enforced during construction to mitigate soil erosion.

b) The proposed intermediate school will generate additional traffic. However, no serious traffic congestion is anticipated because most of the students will be bussed to school. The estimated percentage of students qualifying for bussing ranges from 69% for Site A to 98% for Site C. The school traffic and local traffic are essentially the same since there is no prevalent commuter traffic through the communities.
The alternative sites were selected for maximum accessibility and safety in terms of traffic. Access roadways may be improved or constructed to accommodate the school traffic. The proposed roadway improvements will also benefit the adjoining property owners by providing improved access.

c) Of the ten alternative sites considered in the report, only Sites H and I are currently used for agricultural production. Site H is planted with pineapple and Site I is partially planted with truck crops. If the school is developed at either Site H or I, approximately 9-acres of agricultural land will be permanently removed from long-term production. The selection of one of the other alternative sites should have little or no impact on agriculture because these sites, although zoned for agriculture, are no longer in production.

The development of a school at Sites C, D, E, F and G will remove lands which have agricultural potential. However, a school development at either Sites A, B or J will involve only urban zoned lands. The removal of 9-acres of agricultural land will have some impact on the long-term productivity of agriculture, especially if the school development promotes additional housing developments which encroach into agricultural lands.

3. The possibility of using alternative energy sources will be considered during the design and construction phase of the school. The DOE has been experimenting with the use of solar hot water apparatus in the schools and several new school buildings will include solar heating as an alternate energy source.

4. The EIS will be revised to include a discussion of unresolved issues and the proposed actions, if any.

5. The EIS will also be revised to include a list of necessary permits and their current status.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

D-117
Office of the Director

November 16, 1977

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

Gentlemen:

SUBJECT: Site Selection and EIS for Intermediate School for the Makawao-Puakalani-Kula, Maui

We have reviewed the above EIS and have no critical comment. We appreciate the opportunity to participate in this EIS review.

Sincerely,

Reginald H. F. Young
Asst. Director, WRRC

cc: Department of Accounting and General Services
MEMORANDUM

TO: Doak C. Cox, Director
Environmental Center, University of Hawaii

FROM: Donald A. Bremner, Chairman
Environmental Quality Commission

SUBJECT: Comments on the Site Selection and Environmental Impact Statement for the Intermediate School for the Makawao-Pukalani-Kula Area, Maui

We have received your comments on the above subject.

Please be informed that comments or acknowledgment of no comments on environmental impact statements should be sent to the accepting authority and proposing agency for agency actions. In this case, the accepting authority is the Governor (Office of Environmental Quality Control) and the proposing agency is the Department of Accounting and General Services. We are forwarding your letter to the Office of Environmental Quality Control and a copy to the Department of Accounting and General Services.

If you have any questions regarding this matter, please do not hesitate to contact us. Your cooperation and participation in the EIS process is greatly appreciated.

cc: OEQC, DAGS with incoming
MEMORANDUM

TO: Chairman
   Environmental Quality Commission

FROM: Doak C. Cox, Director

SUBJECT: Review of Site Selection and EIS for the Intermediate School for the Makawao-Pukalani-Kula Area, Maui

The Environmental Center review of the EIS for the intermediate school site for the Makawao-Pukalani-Kula area has been prepared with the assistance of Richard Mauer, Maui Community College and Darro Thuet and Jacquelin Miller of the Environmental Center.

Time and available personnel have not permitted an in-depth review of this EIS. In general our brief review indicates an adequate evaluation of the potential environmental impacts to be expected with this project. In this brief review, the following concerns have been raised.

Has consideration been given to the new shopping center that is due to open in December, 1977? This shopping center is located within 1/4 mile of the site B. Are there any safety considerations with regard to traffic and the school site location?

If site B is selected it might facilitate the joint use of existing bus service.

The cost of a pedestrian overpass for safety should be included in the offsite costs.

Wind conditions should be considered. Perhaps trees could be planted along the north-east boundary of the site for a wind break.

It is our understanding that 3000 units are currently being developed at a new town called Maialie in Kahului area. What are the school construction plans particularly in regard to a high school? It appears that Pukalani, Makawao and Kula students will need a new high school by 1985 to accommodate the increasing student enrollment.
We question the reduction in site size and feel that National Secondary School accreditation standards plus 20 or 30 percent be considered as a site selection criteria. What assumptions for a physical curriculum do the site size criteria include? Site size and development will determine the curriculum possible and we fear that the limited size for an intermediate school does not allow for a first rate P.E. curriculum. Not having seen the adjacent park, we do not know how that fits in, but few parks are designed for a well planned, comprehensive P.E. program.

Is the 7-8 grade organizational pattern for the school consistent with the state (DOE) Master Plan for organization? Does the Master Plan call for a 7-8 grade or a 6-7-8 or a 7-8-9. There has been some discussion of this and there are site/facility implications for each of the organization patterns stated above.

Has consideration been given to implement the 4-4-4 system? We appreciate the opportunity to have reviewed and commented on this EIS.

AN EQUAL OPPORTUNITY EMPLOYER
Dr. Doak C. Cox  
Director  
Environmental Center  
University of Hawaii  
2550 Campus Road, Crawford 317  
Honolulu, Hawaii 96822

Dear Dr. Cox:

Subject: Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School

We offer the following responses to your undated comments which were addressed to the Chairman, Environmental Quality Commission:

1. Shopping Center: We have evaluated the proximity of the new shopping center in the site selection report and believe that the shopping center may be an attractive nuisance to the students.

2. Safety Considerations: The shopping center will increase local traffic along Pukalani Street. However, the traffic is not expected to conflict with the school opening and closing hours.

3. Bus Service: Sites A, B and C are located adjacent to existing schools and will facilitate joint utilization of bus service for certain students.

4. Pedestrian Overpass: The need for a pedestrian overpass was considered for Site B. However, a new highway is scheduled to be constructed to route the major flow of traffic around the town and thereby reduce traffic hazards on the existing highway. Site C is adjacent to Kula Highway and includes the cost of a pedestrian overpass.

5. Wind: The effect of strong prevailing winds can be reduced by the orientation and design of buildings as well as inclusion of windbreak landscaping.

6. High School: The proposed Waiale subdivision will include an elementary and possibly an intermediate
school. The existing Baldwin and Maui High Schools will accommodate the high school students from this area. The DOE does not project the need for a high school in the up-country area based on the enrollment data contained in their long-range plans.

7. Site Size: The DOE's acreage requirements for new schools are included in the report. The minimum site size for the proposed intermediate school is 8 acres which includes 3.5 acres for playfields. For sites adjacent to a public park, the playfield requirements can be reduced by 50%. In such cases, the adjacent park will provide much larger areas than needed and more types of facilities than normally provided for intermediate schools. The DOE has developed the acreage requirements based upon their experience with existing schools and curriculum requirements.

8. Organization: The proposed 7-8 grade organization was selected by the Maui School District for the specific needs of the up-country student population. The DOE master plan for organization does not specify the grade levels for implementation on a statewide basis. There is a need for K-12, K-8, or K-6 schools depending upon the geographical location and student population factors. Other considerations in determining grade organization are the need for flexibility to meet changing educational requirements and the various educational environments of different communities.

Very truly yours,

RIXIO NISHIOKA
State Public Works Engineer

HS:ct
Mr. Albert Q. Y. Tom, Chairman
Environmental Quality Commission
Office of the Governor
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Tom:

Thank you very much for the opportunity to review and comment on
the "Site Selection and EIS for Intermediate School for the Makawao,
Pukalani-Kula Area, Maui."

The following comments from the respective departments are forwarded
for your consideration:

A. DEPARTMENT OF WATER SUPPLY
   1. We find no major additions or correction to be made. However, the construction will require compliance of County rules and regulations and standards.

B. PLANNING DEPARTMENT
   1. While most of the concerns expressed by Mayor Cravalho (dated 2/14/77) have been included in this draft EIS Report, it appears that the questions raised by Item No. 6 relative to groupings of school children have not been addressed.
   2. We believe Site D is superior to meeting the community's needs for an intermediate school. The Site Selection Report conclusion that Site B has the best rating is faulty, inasmuch as the evaluation criteria is inappropriate.

C. DEPARTMENT OF PUBLIC WORKS
   1. The department has expressed the need to improve Ukiu Road and Maha Road with respect to Site D. The site selection study shows that the cost for these off site improvements would be $297,200. Although this improvement cost is high, we feel that Site D should be chosen based on:
a. The off site road improvement cost is less than the cost to construct new recreational facilities adjacent to the other proposed site.

b. The road improvements (along Ukiu and Maha Roads) should be made for the benefit of the existing Makawao School.

D. DEPARTMENT OF ECONOMIC DEVELOPMENT

1. Upon reviewing the "School Site Criteria Evaluation" (Table 3), it becomes evident that the majority of P (poor) ratings are derived from categories under "Roadway and Utilities." These criteria do not take into account the availability of land, which and when developed accordingly, would absolve some of these poor ratings. Specifically, the roadway, pedestrian automobile, and traffic safety categories. We ask that this be considered in the final evaluation of sites.

2. In "Comparison of Improved Rating Differences" (Table 8), a school site criteria is "Rainfall." The present rainfall rating for Site D is P (poor) while Site F only a thousand feet away has a F (fair) rating. On page 31, figure 27 indicates Sites D & F to be between the same two isohyetal lines (40" - 50"). Therefore these two sites receive approximately the same amount of rainfall. We ask that the "poor" rating for Site D be changed to "fair" accordingly. Although Site B receives less rainfall than Sites D or F, it is subjected to higher wind velocities. This is an important factor which should not be overlooked. Perhaps "climate" would be a better criteria.

3. The study on site selection accords a good account of cost considerations on the alternate sites. However, costs should be weighed and balanced with benefits to offer an accurate analysis of sites. We realize that "benefits" is a very subjective matter and thus, difficult to appraise. But in order to obtain a reasonable cost/benefit analysis, an attempt must be made. Such benefits as proximity to the original Makawao School, joint-use arrangements for a school-park complex (decreased acreage requirements and increased utilization by the public), convenience to families, and compatibility of the environment conducive to learning could be considered. A site close to the original Makawao School would minimize the impact of transition to area residents and thus, limit unforeseen obstacles.
4. Maui County Mayor Elmer F. Cravalho, Maui County Planning Department, Maui County Parks Department, Maui District School Advisory Council, Makawao School PTA, and a survey of nineteen individuals have shown community support and preference for Site D.

5. Site D appears to have higher cost requirements; however, it also offers the greatest amount of benefits. These benefits should offset some of the concern for cost considerations.

6. The Environmental Impact Statement seems adequate and we offer no amendments at this time.

Again, thank you for the opportunity to comment.

Very truly yours,

ELMER F. CRAVALHO
Mayor, County of Maui

cc: Department of Accounting
    and General Services
Honorable Elmer Cravalho  
Mayor  
County of Maui  
Kahului, Maui, Hawaii  

Dear Mayor Cravalho:  

Subject: Site Selection Report and EIS  
Makawao-Pukalani-Kula Intermediate School  

Thank you for the October 31, 1977 review comments on the subject report. We offer the attached responses to your concerns.  

If there are any questions, please call me at 548-3050.  

Respectfully,  

HIDEO MURAKAMI  
State Comptroller  

Attachment
RESPONSE TO COMMENTS RECEIVED FROM MAUI COUNTY ON SITE SELECTION REPORT AND EIS FOR MAKAWAO-PUKALANI-KULA INTERMEDIATE SCHOOL

A. DEPARTMENT OF WATER SUPPLY

State policy is to comply with County rules, regulations, and standards.

B. PLANNING DEPARTMENT

1. The DOE considers the K-6, 7-8, and 9-12 grade groupings appropriate based on educational advantages and seeks to implement this organization when feasible.

2. The criteria has been developed by Dags based on past experience in evaluating and selecting school sites throughout the State. The criteria has been and will continue to be expanded and improved periodically as additional items are included and/or new methods of evaluation are derived. Since no specific reasons were given as to why the criteria is inappropriate, we have no other response to offer.

C. DEPARTMENT OF PUBLIC WORKS

The cost computations in the site selection study shows the estimated cost of improving Ukiu and Maha Roads is $1,059,800 rather than $297,200. It also shows that the cost of the off-site road improvements would be more than the cost of constructing a playground at another site.

D. DEPARTMENT OF ECONOMIC DEVELOPMENT

1. The improved ratings of a site are included in the evaluation. Table 8 in the report is a "Comparison of Improved Rating Differences" which shows that the roadway, pedestrian, automobile, and traffic safety evaluation ratings improve with the proposed development of roadways, etc., projected in the report.

The availability of land is covered by items in the selection criteria such as State Land Use designation, County General Plan designation, County zoning, displacement, existing use, and land owners.

2. The DOE's criteria calls for covered walkways and play courts whenever the median annual rainfall exceeds 40 inches. Since the rainfall for Sites D, E, and F exceeds 40 inches, the rating for Site F will be changed from fair to poor. The problem with using a wind velocity criteria is the lack of adequate data to make an evaluation.

D-128
3. A cost/benefit analysis is normally used to determine whether or not to proceed with a project. It is not meaningful for this project because the DOE is committed to providing the educational facilities and programs regardless of the cost of the school. Please note that the educational benefits of the new school should be comparable for all sites. Thus, a comparative analysis is used based on the school and community criteria and based on cost considerations. We are not able to evaluate the intangible items mentioned.

4. The support of the individuals and agencies for Site D will be given serious consideration in the final recommendation of the school site.

5. See item 3. above.

6. No response required.
November 15, 1977

Mr. Rikio Nishioka
State Public Works Engineer
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Re: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

We were given a copy of your letter dated June 22, 1977, addressed to Mr. Robert Monden, First Vice-President of Kula Elementary School PTA. In Item 5 of that letter, you stated that you had received no response from the Pukalani School PTA.

This PTA was never given an opportunity to review the above referred-to document, and as such, is not in a position to comment on it.

Please be assured that, given the opportunity, we certainly would have provided you with our input.

Sincerely yours,

Shirley K. Takahashi
Secretary
Pukalani School PTA
Pukalani School PTA
C/o Shirley K. Takahashi
P.O. Box 85
Pukalani, Maui, Hawaii 96788

Gentlemen:

Subject: Draft Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

Thank you for your November 15, 1977 letter stating your PTA was not given the opportunity to review the subject report and EIS. Our records indicate that a copy of the subject report and EIS was addressed to the Pukalani PTA in care of Pukalani Elementary School and mailed on January 28, 1977. A copy of the report was also sent to the Pukalani Community Association and a notice published in both the Honolulu Advertiser and Maui News. We are sorry that the report did not reach your organization.

Please be assured your input would have been welcomed.

Very truly yours,

Rikio Nishiooka
State Public Works Engineer

RS:jnt
cc: Mr. K. Tokushige
    Mr. D. Oishi
Mr. L. D. MacCluer
Makawao School PTA
3145 Baldwin Avenue
Makawao, HI 96768

Dear Mr. MacCluer:

We thank you for commenting on the Environmental Impact Statement on the Site Selection for an Intermediate School for the Makawao-Pukalani-Kula Area in Maui. However, comments on environmental impact statements should be sent to the accepting authority and proposing agency for agency actions. We are, therefore, forwarding your letter to the Office of Environmental Quality Control (accepting authority) and a copy to the Department of Accounting and General Services (proposing agency).

Your participation in the EIS process is greatly appreciated. We hope that you will be able to comment on other EIS's again in the future. Aloha!

Yours truly,

Donald A. Bremner
Chairman

cc: OEQC, DAGS, with incoming
Gentlemen:

The Makawao School Site Committee would like to again thank you for the opportunity to respond to another Environmental Impact Statement on the Site Selection for an Intermediate School for the Makawao-Pukalani-Kula Area, Maui.

As discussed earlier, we disagree with the proposed delay of opening the intermediate school from 1978 to the 1983-1985 period. Our reason for objection is that we do not have confidence in the enrollment projections. This lack of confidence stems from the fact that the DOE projections have been in error for the 1977-1978 period at Makawao and Pukalani. There was a 13% error for the Pukalani School which, after only two terms, is already forced to move in portable classrooms.

Additionally, we would like to point out that the new Kihei School is now getting portables due to inadequate space. If the intermediate school had been built as originally projected, the portable march for the upcountry area would not be necessary.

We agree with Charles Clark that the road improvement should be limited to only one access road. This would substantially reduce the construction cost for Site D.

The $52,500 estimate for drainage in Site D appears to be unreasonable primarily due to design. It appears that using the Soil Conservation Service approved water way, as proposed for Site E, would reduce the development cost for Site D by at least $20,000. If this type of drainage system were installed, drainage would not be rated "P" in your comparison rating.

Agricultural zoning should not be an objection, since the surrounding land is no longer in major agricultural use. The objection might be valid if pineapple were still being farmed on parcel D. This is not, however, the case, as adjoining lands are being developed into two-acre estates. The Department of Agriculture should have no negative input into this Environmental Impact Statement since they did not testify to oppose the Makawao Inc. subdivision, which is nearby and was truly agricultural land.
In your ratings for rainfall, we who live in Makawao cannot see how rainfall can be rated "P" for Site D, while Site F is truly identical in rainfall but rated "F".

Those of us who have worked for a number of years on getting the Intermediate School off the ground are disappointed in the fact that it has taken so long to get started.

Site D, the Eddie Tam Site, would be ideal for our children. The important thing, however, is not the hassles on which site to choose, but delays that force overcrowding and portable classrooms.

Sincerely,

[Signature]

L.D. MacCluer, Chairman
School Site Committee
Makawao School PTA

LDW/sj

xc: W. Tavares
J. Kinoshita
D. Oishi (DOE)
July 6, 1978

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

Dear Mr. Nishioka:

Subject: Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

I am sorry for the inadvertent delay in responding to your letter dated January 31, 1978. I am providing you with a copy of the FACILITIES DEVELOPMENT PLAN for the Maui High Complex dated 3/77. This should provide the necessary responses to the comments in question.

Please call me should the foregoing require clarification.

Sincerely,

Darrell Oishi
District Superintendent

cc: Mr. Koichi H. Tokushige
Assistant Superintendent
Office of Business Services

AN EQUAL OPPORTUNITY EMPLOYER
Mr. Rikio Nishioka  
State Public Works Engineer  
State of Hawaii  
Dept. of Accounting & Gen. Services  
P. O. Box 119  
Honolulu, Hawaii 96810  

Dear Mr. Nishioka:

Thank you for your "prompt" reply to our November, 1977 review comments on the Makawao Intermediate School.

The upcountry parents disagree with the delay of purchasing the land. This may be a mute point, as with the rate of development in Makawao, the proposed sites may be gone before the DOE and DADS ever get launched.

I assure you that the Governor will have a difficult time getting support in the upcoming election from our parents who have been writing to him for years.

You can rest assured that your letter will be read to all of our parents at the next PTA meeting.

Sincerely,

L. D. MacCluer  
School Site Committee

LDM/sj  
xc: Gov. Ariyoshi
AUG 23 1978

Mr. L. D. McCluer
3145 Baldwin Ave.
Hakawao, Hawaii  96783

Dear Mr. McCluer:

Subject: Site Selection Report and EIS
Makawao-Pukalani-Kula Intermediate School

This is to acknowledge receipt of your August 14, 1978 letter. The reason for the delay in our response to your November 1977 review comments was to verify the DOE's student enrollment data and grade organization plans. We received the data on July, 1978.

We regret that the upcountry parents disagree with the DOE's projected school opening date of 1978-79. However, we would appreciate your patience and cooperation in this matter.

Very truly yours,

EIKICHI NISHIYAMA
State Public Works Engineer

Hi:ct