MEMORANDUM

TO: Ms. Genevieve Salmonson, Director  
Office of Environmental Control

FROM: Ernest Y. W. Lau  
Public Works Administrator

SUBJECT: Finding of No Significant Impact (FONSI) for  
Waianae High School  
Eight Classroom Building  
TMK: 8-5-002:018 and 8-5-015:001  
Waianae, Oahu, Hawaii

The Department of Accounting and General Services has reviewed the comments received during the 30-day public comment period which began on March 8, 2004. We have determined this project will not have significant environmental effects and will issue a FONSI. Please publish this notice in the May 23, 2004 OEQC Environmental Notice.

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

If you have any questions, please have your staff call Ms Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:no
Enclosures
FINAL
ENVIRONMENTAL ASSESSMENT

WAIANAE HIGH SCHOOL EIGHT-CLASSROOM BUILDING PROJECT

May 2004

Prepared For:
Department of Accounting & General Services
State of Hawaii

Prepared By:
SSFM INTERNATIONAL
DRAFT ENVIRONMENTAL ASSESSMENT

FOR

WAIANAE HIGH SCHOOL
EIGHT-CLASSROOM BUILDING
PROJECT

T.M.K: (1) 8-5-002: 018; (1) 8-5-015:001
WAIANAE, OAHU

MAY 2004

PROPOSING AGENCY:
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96804

PREPARED BY:
SSFM INTERNATIONAL

SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>INTRODUCTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>PURPOSE FOR ENVIRONMENTAL ASSESSMENT</td>
<td>1</td>
</tr>
<tr>
<td>1.2</td>
<td>PROJECT BACKGROUND</td>
<td>3</td>
</tr>
<tr>
<td>1.3</td>
<td>LAND USE CLASSIFICATIONS AND DESIGNATIONS</td>
<td>4</td>
</tr>
<tr>
<td>1.3.1</td>
<td>State Land Use Districts</td>
<td>4</td>
</tr>
<tr>
<td>1.3.2</td>
<td>City and County Development/Sustainable Community Plans</td>
<td>6</td>
</tr>
<tr>
<td>1.3.3</td>
<td>City and County Zoning Districts</td>
<td>6</td>
</tr>
<tr>
<td>1.3.4</td>
<td>Special Management Area</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PROJECT DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>PROJECT LOCATION AND VICINITY</td>
<td>11</td>
</tr>
<tr>
<td>2.1.1</td>
<td>Existing Surrounding Land Uses</td>
<td>11</td>
</tr>
<tr>
<td>2.1.2</td>
<td>Waianae High School</td>
<td>14</td>
</tr>
<tr>
<td>2.1.3</td>
<td>Property Information and Existing Site Conditions</td>
<td>16</td>
</tr>
<tr>
<td>2.2</td>
<td>PROJECT NEEDS AND OBJECTIVES</td>
<td>19</td>
</tr>
<tr>
<td>2.3</td>
<td>DESCRIPTION OF PROJECT</td>
<td>22</td>
</tr>
<tr>
<td>2.4</td>
<td>DEVELOPMENT SCHEDULE AND ESTIMATED COSTS</td>
<td>29</td>
</tr>
<tr>
<td>2.5</td>
<td>LISTING OF REQUIRED PERMITS</td>
<td>30</td>
</tr>
<tr>
<td>2.6</td>
<td>ALTERNATIVES CONSIDERED</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PHYSICAL AND BIOLOGICAL ENVIRONMENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>CLIMATE, TOPOGRAPHY, AND SOILS</td>
<td>33</td>
</tr>
<tr>
<td>3.2</td>
<td>NATURAL HAZARDS</td>
<td>38</td>
</tr>
<tr>
<td>3.3</td>
<td>AIR QUALITY</td>
<td>41</td>
</tr>
<tr>
<td>3.4</td>
<td>NOISE</td>
<td>43</td>
</tr>
<tr>
<td>3.5</td>
<td>VISUAL RESOURCES</td>
<td>44</td>
</tr>
<tr>
<td>3.6</td>
<td>HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES</td>
<td>45</td>
</tr>
<tr>
<td>3.6.1</td>
<td>Historic and Archaeological Resources</td>
<td>45</td>
</tr>
<tr>
<td>3.6.2</td>
<td>Cultural Resources</td>
<td>46</td>
</tr>
<tr>
<td>3.7</td>
<td>BIOLOGICAL ENVIRONMENT</td>
<td>49</td>
</tr>
<tr>
<td>3.7.1</td>
<td>Botanical Resources</td>
<td>49</td>
</tr>
<tr>
<td>3.7.2</td>
<td>Avifauna and Fauna</td>
<td>49</td>
</tr>
<tr>
<td>3.7.3</td>
<td>Hydrogeological Resources</td>
<td>50</td>
</tr>
</tbody>
</table>
CHAPTER 4  ECONOMIC AND SOCIAL FACTORS  
  4.1  ECONOMIC AND FISCAL FACTORS  
  4.2  SOCIAL IMPACT FACTORS  
  4.3  SECONDARY AND CUMULATIVE IMPACTS  

CHAPTER 5  INFRASTRUCTURE FACILITIES  
  5.1  WATER FACILITIES  
  5.2  WASTEWATER FACILITIES  
  5.3  DRAINAGE FACILITIES  
  5.4  SOLID WASTE  
  5.5  TRANSPORTATION FACILITIES  

CHAPTER 6  PUBLIC FACILITIES AND UTILITIES  
  6.1  ELECTRICAL AND COMMUNICATION FACILITIES  
  6.2  EDUCATIONAL FACILITIES  
  6.3  POLICE AND PROTECTION  
  6.4  FIRE PROTECTION  
  6.5  RECREATIONAL FACILITIES  
  6.6  MEDICAL FACILITIES  

CHAPTER 7  CONFORMANCE WITH PLANS AND POLICIES  
  7.1  STATE LAND USE DISTRICT  
  7.2  CHAPTER 344, STATE ENVIRONMENTAL POLICY  
  7.3  CITY AND COUNTY OF HONOLULU GENERAL PLAN  
  7.4  WAIANAE SUSTAINABLE COMMUNITIES PLAN  
  7.5  CITY AND COUNTY OF HONOLULU ZONING DISTRICT  
  7.6  SPECIAL MANAGEMENT AREA  

CHAPTER 8  AGENCY AND PUBLIC CONSULTATION  
  8.1  PRE-ASSESSMENT CONSULTATION (DRAFT EA)  
  8.2  DRAFT ENVIRONMENTAL ASSESSMENT COMMENTS  

CHAPTER 9  FINDINGS AND DETERMINATION  
  9.1  FINDINGS  
  9.2  DETERMINATION  

CHAPTER 10  BIBLIOGRAPHY
LISTING OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.1</td>
<td>Project Location Map</td>
<td>2</td>
</tr>
<tr>
<td>Figure 1.2</td>
<td>State Land Use District Boundary Map</td>
<td>5</td>
</tr>
<tr>
<td>Figure 1.3</td>
<td>City Zoning District Map</td>
<td>8</td>
</tr>
<tr>
<td>Figure 1.4</td>
<td>Special Management Area Boundary Map</td>
<td>9</td>
</tr>
<tr>
<td>Figure 1.5</td>
<td>Shoreline Survey Boundary Map</td>
<td>10</td>
</tr>
<tr>
<td>Figure 2.1</td>
<td>Waianae High School 8-Classroom Building Project Vicinity Map</td>
<td>12</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>Existing Waianae High School Campus Layout</td>
<td>15</td>
</tr>
<tr>
<td>Figure 2.3</td>
<td>Tax Map of Waianae High School Campus</td>
<td>17</td>
</tr>
<tr>
<td>Figure 2.4</td>
<td>Existing Site Conditions for New Classroom Building</td>
<td>20</td>
</tr>
<tr>
<td>Figure 2.5</td>
<td>Eight-Classroom Building Conceptual Site Plan</td>
<td>23</td>
</tr>
<tr>
<td>Figure 2.6</td>
<td>Conceptual Building Floor Plan</td>
<td>26</td>
</tr>
<tr>
<td>Figure 2.7</td>
<td>Additional Parking Improvement Plan</td>
<td>28</td>
</tr>
</tbody>
</table>

LISTING OF TABLES

<table>
<thead>
<tr>
<th>TABLES</th>
<th>DESCRIPTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1.1</td>
<td>Summary Information</td>
<td>3</td>
</tr>
</tbody>
</table>
LISTING OF APPENDICES

APPENDIX

Appendix A  Photos of Project Site and Surrounding Areas

Appendix B  Consultation Efforts
  B-1  Draft EA Pre-Assessment Consultation
  B-2  Draft EA Comments Letters and Responses

Appendix C  Cultural Impact Assessment For The Proposed State Of Hawaii
  Department of Accounting and General Services Single Story
  Eight Classroom Building Complex At Waianae High School
  In the District of Waianae, Island of Oahu
  Prepared By: Cultural Surveys Hawaii, Inc. (January 2004)
CHAPTER 1
INTRODUCTION

1.1 PURPOSE FOR ENVIRONMENTAL ASSESSMENT

The Department of Accounting and General Services (DAGS), State of Hawaii, on behalf of the State Department of Education, is proposing the Waianae High School Eight-Classroom Building Project. This project involves the construction of a new single-story building complex on the campus of Waianae High School that will provide eight (8) additional classrooms, accessory rooms to support the school’s educational programs, and parking lot modifications.

The purpose for this project is to provide additional permanent classroom facilities to accommodate current facility shortages in serving the school’s student enrollment. This project would provide needed general classroom facilities and specialized classroom facilities with labs to serve the biology and chemistry programs. It will involve demolishing two (2) existing portable classrooms located on the site, and provide modifications to existing campus parking. This project will also accommodate the addition of a new food service educational program at this high school, and create needed office space for faculty and student services. Due to a shortage of permanent building facilities, these educational and administrative services have to be provided from temporary portables or office trailers located on campus.

These improvements will be situated within the existing Waianae High School campus that is located in the Waianae district of the island of Oahu. Figure 1.1 shows the project’s location and general vicinity. The high school campus is presently comprised of two parcels of which one is owned by the State of Hawaii (State) and the other by the City and County of Honolulu (City). A joint development agreement between the State and City allows for the operation and maintenance of this high school by the State Department of Education1.

This Final Environmental Assessment (Final EA) addresses the probable impacts on the surrounding environment resulting from the proposed improvements associated with the new 8-classroom building complex. This document was prepared in conformance to the regulatory and documentation requirements prescribed under Chapter 343, Environmental Impact Statements, Hawaii Revised Statutes (HRS), otherwise referred to as the “Hawaii Environmental Impact Statement Law” or HEISL, and Title 11, Chapter 200 (Environmental Impact Statement Rules) of the State Department of Health’s Administrative Rules.

---

1 Conditional Use Permit (Minor) 2002/CUP-18 approved a joint development agreement for Waianae High School in March 2002.
A Draft Environmental Assessment (Draft EA) was published in the March 8, 2004 issue of *The Environmental Notice* in conformance to these regulatory requirements. The 30-day public comment period for the review of that Draft EA ended on April 7, 2004. Subsequently, this Final EA was prepared based upon the comments received on the Draft EA, and a Finding of No Significant Impact (FONSI) is consequently being issued for this project.

1.2 PROJECT BACKGROUND

The Waianae High School campus is located in the Waianae district along the Leeward coast of the island of Oahu. This school campus is situated along the shoreline located at 85-251 Farrington Highway, and is identified as Tax Map Key 8-5-002: 018, and 8-5-015: 001. The high school serves students in grades 9 through 12, and has an enrollment of 1,921 students during this current 2003-04 school year (IRMB, January 2004).

Presently, and for several years, this campus has had a shortage of available classroom facilities for their students as well as faculty. Over the years, temporary solutions have included adding portable buildings around the campus for classrooms along with an office trailer to house office or student support services. Furthermore, the school wants to start a new food service educational program and needs the necessary support facilities (ex. kitchen facility, etc.) for the students and this program. Consequently, there is a need for more permanent and improved classroom and faculty facilities resulting in the proposed 8-classroom building project. A summary of pertinent project related information is provided in Table 1.1 below.

<table>
<thead>
<tr>
<th>Table 1.1 Summary Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Name:</strong></td>
</tr>
<tr>
<td><strong>Applicant:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Agency's Consultant:</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Accepting Agency:</strong></td>
</tr>
<tr>
<td><strong>Project Description:</strong></td>
</tr>
</tbody>
</table>
Table 1.1 Summary Information (continued)

Project Location: This project is situated in the Waianae district located along the Leeward district of the Island of Oahu.

Existing Use: The property is used as the campus of Waianae High School, a public school operated and maintained by the State Department of Education.

Land Ownership: State of Hawaii, City and County of Honolulu

Tax Map Key: 8-5-002: 018; 8-5-015: 001

Land Area: The Waianae High School lot is approximately 40.278 acres. The State of Hawaii owns approximately 23.8 acres (TMK: 8-5-002: 018), with the City and County of Honolulu owning the remainder 16.478 acres (TMK: 8-5-015: 001).

State Land Use: Urban

City Zoning: P-2, General Preservation (both parcels)

SMA District: The Waianae High School campus is located within the SMA area. The proposed 8-classroom complex is considered a "development" under SMA regulations and requires a major Special Management Area Use Permit.

1.3 LAND USE CLASSIFICATIONS AND DESIGNATIONS

1.3.1 State Land Use Districts

Under Chapter 205, HRS, all lands in the State of Hawaii are classified into four major land use districts (State Land Use Districts) which are the Urban, Rural, Agricultural, and Conservation districts (State of Hawaii, 2000). The boundaries of these districts are shown on maps referred to as State Land Use District Boundary Maps. On the Island of Oahu, lands are predominantly designated as Urban, Agricultural, or Conservation districts. For each land use district classification, there are defined uses or activities permitted which are described under §205-2, HRS, and regulated by the State Land Use Commission.

The Waianae High School site and surrounding residential areas are classified as "Urban" on the State's Land Use District Boundary Map for the Waianae region (O-2, Waianae). Figure 1.2 shows the project area in relation to the State's land use district boundaries. Activities or uses permitted within this Urban District are provided by ordinances or regulations of the county within which the Urban District is situated. Thus, Urban District lands on the Island of Oahu are regulated by the ordinances and regulations of the City and County of Honolulu.
1.3.2 City and County Development/Sustainable Community Plans

The City's Development Plans, most of which are now referred to as Sustainable Communities Plans, consist of conceptual schemes for implementing the development or sustainable community objectives and policies of the City's General Plan. The purpose of these plans is to set forth the desired sequence, patterns, and characteristics of future development or sustainability of a region or community. Thus, these plans are detailed guidelines for the physical sustainability or development of the island. The plans consist of maps depicting the land use pattern, public facilities, and open spaces, general principles and common provisions, and specific urban design principles and controls (DPP, 1999).

Waianae High School is identified as a "Public Facility" on the Waianae Sustainable Communities Plan's Public Facilities Map, and the property designated as "Rural Residential" (DPP, 1999). The Public Facilities map, shown here, is a conceptual map that primarily identifies public facilities within the Waianae community plan area. Surrounding residential areas are also designated as "Rural Residential" and "Agriculture" on this map.

1.3.3 City and County Zoning Districts

All lands within the City are categorized, or zoned, into specific districts. These districts and uses permitted within them are described under the City's Land Use Ordinance (Chapter 21, Revised Ordinances of Honolulu (ROH)), and are shown on zoning maps (City, 2001). The purpose of the Land Use Ordinance (LUO) is to regulate land use in a manner which encourages orderly development in accordance with adopted land use policies, and to protect and promote public health, safety, and welfare. This Land Use Ordinance is a very detailed ordinance which addresses a wide range of development and design standards, permitted uses, administration, and procedures for zone changes or other approvals.
The Waianae High School property is zoned P-2, General Preservation. Surrounding areas are zoned P-2, General Preservation, which are associated with the adjacent Waianae Park to the east and open space area along the shoreline to the west. The Makaha Surfside condominium is located adjacent northwest of the school in an area zoned as A-1, Apartment, Low Density. Figure 1.3 shows the zoning districts designated for the project site and immediate surrounding area.

Although the Waianae High School campus site is zoned P-2, General Preservation, the new classroom building complex proposed is a permitted use within this zoning district because it is considered a "public use or structure".

1.3.4 Special Management Area

Under Chapter 205A (Coastal Zone Management) of the Hawaii Revised Statutes, the City is given authorization to regulate land uses located within the established Special Management Area (SMA) for the Island of Oahu. Review of the City's SMA map for the Waianae High School site and immediate surrounding area determined that the entire Waianae High School campus is situated within the City's Special Management Area. Figure 1.4 shows the project site's location in relation to the SMA boundaries.

Since the proposed new classroom building complex is located within the existing campus, the project will be subject to regulatory procedures, permit requirements, and review under the City's SMA regulations described in Chapter 25 of the Revised Ordinances of Honolulu. This Environmental Assessment document will subsequently be used to complete SMA permit application requirements and processing procedures.

Shoreline Survey

A shoreline survey was completed for this project to determine the certified shoreline boundary. Figure 1.5 shows the survey of the shoreline established for the school campus fronting the project site. Notice of the shoreline certification application for this school campus was published in the July 23, 2003, issue of The Environmental Notice, in conformance with §13-222-12, Hawaii Administrative Rules (HAR). Subsequently, the application was certified after the 20-day public review period since no challenges were issued. Notice of this shoreline survey certification was published in the October 23, 2003, issue of The Environmental Notice, in conformance with §13-222-26, HAR.
SHORELINE SURVEY MAP
PORTION OF LOT 1
BEING PORTIONS OF THE GOVERNMENT (CROWN) LAND OF WAIANAE
AS SHOWN ON DPAP FILE No. 82 (197)
at Waihe'ea-Kulii, Waimanalo, Oahu, Hawaii

SHORELINE SURVEY BOUNDARY MAP

Source:
CentralPoint Surveying, Inc.
September 2003

Waianae High School 8-Classroom Building
Department of Accounting and General Services
CHAPTER 2
PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND VICINITY

The project site for the new 8-classroom building being proposed is located on the campus of Waianae High School. The high school is located on the western end of the Island of Oahu in the Waianae District. This campus is situated along Farrington Highway where Ala Akau Street and Kaulawaha Road intersect with Farrington Highway, and has a street address of 85-251 Farrington Highway. Figure 2.1 shows the project’s location and immediate vicinity.

The Waianae District is situated on the western flanks of the Waianae Mountain Range, which forms the Leeward coastline of Oahu. This district encompasses the area from Nanakuli northbound up to Kaena Point. Farrington Highway is a State-owned highway generally routed along this coastline, and serves as the primary roadway facility providing vehicular access along the entire Waianae District.

This district has a firmly established rural character essentially consisting of a string of smaller residential communities developed along Farrington Highway and extending into the valleys. Communities within this district thus include Nanakuli, Lualualei, and Maili to the southeast of the high school campus, and Makaha and Keaau to the northwest.

2.1.1 Existing Surrounding Land Uses

Waianae High School is located on the northern end of the Waianae community. This community is a predominantly rural residential community generally extending from the shoreline area inland into the Waianae Valley between the neighboring communities of Maili and Makaha. Further inland of this valley are smaller residential subdivisions, and larger land areas used for agricultural activities or designated for preservation. The U.S. Department of Defense’s Lualualei Naval Reservation and Lualualei Naval Radio Station are located in adjacent Lualualei Valley, and encompass most of these mauka land areas.

Within this Waianae community, there are a several major commercial and business land uses separated by residences strung along Farrington Highway. These commercial establishments are situated southeast of Waianae High School within the designated “Country Town” corridor of the City’s Waianae Sustainable Communities Plan.
Waianae Mall is a major commercial development within this County Town corridor situated approximately 1.3 miles southeast of the high school campus along Farrington Highway. This mall includes a number of businesses serving this community such as a market, drug store, several restaurants and "fast food" establishments, various retail stores, banks, and offices. Other businesses within this corridor generally consist of smaller retail and commercial shops and restaurants. The Waianae Coast Comprehensive Health Center, which is a primary medical facility for this community, is located at the southern end of the Waianae town area.

Immediately across the street from Waianae High School are small residential subdivisions consisting of R-5 Residential and Country zoned lots and the Waianae Model Community Development Project (Ulu Wehi) (see photo). Further south on the mauka or west side of Farrington Highway is Waianae Intermediate School, and the Waianae Civic and Multi-Service Centers. The Makaha Surfside Apartments is situated adjacently northwest of the campus and consists of 467 apartment units.

Adjoing southeast of the high school campus is the City’s Waianae Regional Park which is not developed with any facilities. The Waianae Boat Harbor and Waianae District Park are located further south along this shoreline as shown on the aerial view graphic.
2.1.2 Waianae High School

Waianae High School is a comprehensive high school that offers their students a wide range of opportunities for coursework along with co-curricular activities. This school has been actively involved in School-Community-Based Management for the past four years. Many students participate in such activities as sports programs, clubs, student government, and other activities (DOE, 2002).

Students are primarily of Hawaiian or part-Hawaiian ancestry, and many have a strong interest in their cultural background. School programs focusing on enhancing cultural awareness have been very successful. A number of other special programs, such as their media production program, have been so successful that students have won several awards or recognition for their efforts (DOE, 2002).

School Campus and Facilities

The Waianae High School campus consists of a number of classroom buildings and portables constructed to alleviate classroom shortages. This campus also includes several other facilities and amenities such as a library building, industrial arts complex, parking areas, walkways, internal roadways, playcourts, gymnasium, athletic fields, and swimming pool. Figure 2.2 shows the layout of this high school campus.

The high school can be divided into four sections which are: 1) the gymnasium, swimming pool, and physical education areas located in the western portion of the campus (towards Makaha/Kaena Point), 2) the administration, main classroom, and portable classroom buildings area situated in the central area of the campus, 3) the industrial arts area located in the eastern portion of the campus (towards Nanakuli), and 4) the athletic field located in the makai or southern portion (towards the shoreline) of the campus.

The most recent facility improvement to this campus was the completed construction of a new Media Center Building located next to the swimming pool. Prior to this was the addition of an office trailer in 2000 and a new portable in 1995 to replace one that burned down. The last major facility construction was in 1993 for the swimming pool and construction of a 10-classroom building, and improvements to Building BB (adjacent to the athletic field) to add a weight room, ticket booth, and broadcast booth.
EXISTING WAIANAE HIGH SCHOOL CAMPUS LAYOUT

Figure 2.2

Source:
Department of Accounting & General Services, State of Hawaii

Additional Parking Improvements Location

New 8-Classroom Building
Project Site Within
Waianae High School Campus
Vehicular Access

Vehicular access to this high school campus is only from Farrington Highway. As previously shown on Figure 2.2, the main entrance to the campus is from the signalized intersection leading into their primary front parking lot driveway. The parking lot driveway is designed with a one-way circulation pattern where vehicles enter from the signalized intersection and exit from the other driveway.

The school’s next main driveway access is located on the southeast end of this campus next to the baseball field and bordering the Waianae Regional Park site. This driveway is routed along the baseball field leading down (makai or seaward) to an existing 97 stall parking lot and Classroom Buildings I and CC. The new classroom building project will be located in this area between Building I and the parking lot.

There is another driveway situated along the northwestern end of the baseball field. This driveway leads to a small parking lot used by students, and provides access to the Fine Arts Building X and Classroom Building U. However, this driveway is fenced closed during the day restricting access from the highway.

The last driveway is on the northwestern end of the campus where the school’s playcourts and gymnasmium are located. This driveway leads down (makai) to the swimming pool, media center building, and football field. Since this driveway only provides access to these facilities, its use is limited.

2.1.3 Property Information and Existing Site Conditions

The Waianae High School property consists of two separate parcels totaling 40.278 acres situated along Farrington Highway. This school property is identified as Tax Map Key (TMK) 8-5-002: 018, and 8-5-015: 001. Parcel 018 of TMK 8-5-002 is owned by the State of Hawaii, and consists of 23.8 acres. Parcel 001 of TMK 8-5-015 is owned by the City and County of Honolulu, and consists of 16.478 acres. Figure 2.3 shows the relation to the two Tax Maps parcels to this school campus, and identifies the new 8-classroom building project site.

As shown on Figure 2.3, the new 8-classroom building project will be located entirely within the State-owned parcel 018 of TMK 8-5-002. As part of this improvement, modifications to a parking lot is required, and additional parking stalls are proposed along an unlined drainage canal area near the school’s cafeteria building. These additional parking stalls planned will be located on the City-owned parcel 001 of TMK 8-5-015.
As a result, this project involves improvements proposed to occur on two separate properties with two separate owners. However, a Conditional Use Permit-Minor (CUP-Minor) for joint development (Section 21-5.380, ROH) should not be required from the City since this project is considered a "public use" under the Land Use Ordinance and is thus "exempt." A letter from the City Department of Planning and Permitting dated March 7, 2002 (see exhibit) for the school's recently constructed Media Center Building issued this exemption determination from a CUP-Minor for joint development. Consequently, this exemption should similarly apply to this 8-classroom building project.

Existing Site Conditions

The proposed site for the new classroom building complex is in an area located between Classroom Building I and an existing parking lot (see Figure 2.2). Due to limited open space, this building would be constructed on a portion of the parking lot, open space area next to Building I leading to the shoreline, and where portables (P26 and P27) are situated behind (makai of) Building I (see exhibit photos). As a result, modifications to this parking lot will need to be made. Appendix A includes several photographs of the project site and surrounding campus vicinity.
This project area is currently undeveloped and covered with dirt. It appears that this area may have been previously disturbed from grubbing and grading activities for the construction of the parking lot and Building I. As a result, the topography of this area is generally flat with the exception of foundations created to elevate Building I. Figure 2.4 shows the existing site conditions associated with this project area. Drainage in this area generally sheet flows from mauka areas toward the shoreline away from Building I.

There is an existing man-made dirt berm present which generally runs along the shoreline in this area. This berm rises about five feet above ground level and extends from the football field toward the project site.

2.2 PROJECT NEED AND OBJECTIVES

The new 8-classroom building complex is needed for Waianae High School because the school has a shortage of permanent classrooms for their students to accommodate their desired educational programs. The School Status and Improvement Report for Waianae High School for Fall 2002 indicated that they were short 17 classrooms at that time (DOE 2002). The school currently has only 107 permanent classrooms which have not been enough to adequately meet current enrollments.

The shortage of suitable permanent classrooms causes concerns related to overcrowded conditions, and deficient classroom conditions associated with excessive noise, dust, and heat due to these conditions. These unsuitable conditions are impacting students, faculty, equipment utilized in the classes, and educational program activities. Additional space is needed to properly store products and data collected as part of programs, and to provide better security of areas to prevent items from being stolen. Increased space could also be utilized for more computers as part of educational activities which are usually provided as labs in classrooms.

Consequently, portable classrooms have been added over the years to this campus to address the shortage of permanent classroom facilities. Presently, the school is using a total of 24 portables to meet this facility shortage. As a guideline, portables are generally intended to be used for about 10 percent of the school’s total classroom facilities to accommodate periods having higher or peak enrollments. Therefore, the 24 existing portables being used for this high school are considerably more than what the State DOE would prefer.
These portables are spread throughout the campus, and a majority of them are concentrated in the area fronting the highway west of the school’s front parking lot. These portables have been useful in providing temporary classroom space. However, they are limited in floor area space, and lack the necessary facilities (storage, lab areas, sinks, etc.) to serve certain educational programs such as biology and chemistry courses.

The school also needs more classroom facilities supporting the various science programs. There are greater educational requirements being placed on the students’ sciences curriculum as part of core educational requirements needed for graduation. As a result, schools are placing more focus and emphasis on the sciences as part of their educational programs. At Waianae High School, they have a shortage of classrooms equipped to serve biology and chemistry classes because these facilities need to provide sufficient space for laboratories, equipment storage, sinks, etc. Consequently, the new building complex proposed includes improved classroom facilities designed to serve biology and chemistry classes to meet this shortage.

The school is also in need of additional permanent office space to conduct administrative activities and associated services and for students and faculty. In the year 2000, the school had to add a temporary office trailer to the campus to provide the additional space needed for such administrative activities. Additional office space is also needed to accommodate the many meetings held throughout the week as part of school operations such Individualized Educational Program (IEP) meetings provided under Special Education services. Such office space provided in a permanent facility would provide more security for the storage of equipment and data files which trailers don’t adequately provide.

Waianae High School is also planning to introduce a new food service educational program to their campus for students due to the growing demand for related technical skills and increasing student interest in this field. Education and experience in this field will help students interested in the hotel and restaurant industry along with preparing them for related food industry courses at Leeward and Kapiolani Community College. To accommodate this program, appropriately designed classroom facilities are needed to meet this program’s unique laboratory activities, storage requirements, cooking equipment, and security for such equipment. Therefore, the new classroom building is being designed with needed facilities to accommodate this new program.

New Classroom Building Project Objectives

The objective of this project would be to construct a new permanent single-story 8-classroom building complex to address the school’s need for more classrooms and administrative facilities. Construction of this new building will replace two existing portables located in the
area, but will provide more appropriate classroom space and facilities to serve existing programs and their new food service educational program planned.

This new facility would provide additional general classrooms to alleviate overcrowded conditions, and address the effects of noise, dust, and heat on students, faculty, and equipment using existing portable classrooms. This project will decrease the school’s reliance on so many temporary portable structures. The new classrooms for the biology and chemistry courses will also address their need for such specialized facilities, and help better prepare their students for graduation given the increased requirements being placed on the sciences. Finally, this new building will accommodate the new food service educational program planned at the school by providing the specialized space for equipment and activities.

2.3 DESCRIPTION OF PROJECT

The project will consist of developing a new single-story building complex providing eight (8) additional classrooms and accessory facilities for both teachers and students. This project also involves modifications to the existing parking lot, and providing additional paved parking stalls in another area of the campus. Other accessory improvements includes demolishing two existing portables situated on the site, and creating a fire access lane to provide access to the makai (shoreline) area of the campus. More discussion of the proposed improvements is provided. Figure 2.5 includes a Conceptual Site Plan for this new building complex.

Building Complex

The proposed 8-classroom building complex will be a single-story structure that has a total of approximately 13,370 square feet of gross floor area. This new building will be located between the school’s existing two-story Building I and parking lot. As shown on the Site Plan figure, this building complex would be designed to have a “Z”-shaped configuration so that can be sited around existing Building I efficiently utilizing available space in this area of the campus.

This new building will be constructed primarily of concrete, have a pitched roof, and be designed in conformance to State Department of Education building design requirements and standards. The maximum height of this building will be greater than 15 feet, but within the 25-foot height limit\(^2\) under the Land Use Ordinance development standards for this Preservation (P-2) zoning district since it will only be a single story structure.

\(^2\) Heights up to 25 feet are permitted under the LUO if height setbacks are provided. Setbacks involve 1 foot for every 2 feet of height exceeding the limit.
The specific building design and finished site elevation will be determined during the project’s design phase. However, initial plans are to raise the existing ground level of the proposed building site up to about 4 feet in height using fill material. This would raise the building’s finished floor elevation so that it is at a similar grade with the adjacent Building I. The planned height of this building structure is 21.0 feet. Therefore, the proposed classroom building with new finished grade elevation will be within the 25-foot height limit established for the property. A conceptual building section showing these improvements is shown on the exhibit below.

![Conceptual Building Section Plan](image)

There are two (2) existing portables located on the makai (western) end of Building I that will need to be demolished and removed from this site to allow for construction of the new classroom building. These portables are identified as Portables No. 26 and 27 on the campus and are shown on the exhibit photo. These portables were constructed as part of the school’s initial development in the 1950s and are thus very old. Consequently, it is not feasible or economical to relocate them to another area of the campus for reuse because they will have to be torn down and rebuilt if moved.

![North View of Two Existing Portables to be Demolished](image)
Demolition work associated with these portables will follow normal State Department of Health requirements and environmental monitoring procedures. As part of these standard procedures, environmental testing and other studies will be conducted to evaluate the potential of hazardous material present. The demolition and disposal of materials would then be performed by the contractor in conformance with Federal, State, and City regulations and procedures. Design specifications would include appropriate mitigative measures to contain and minimize impacts from such materials such as conducting soil testing to evaluate potential contamination from demolition work.

A walkway will be provided around the interior perimeter of the building connecting with the existing walkways serving adjacent buildings. All necessary electrical, plumbing, and other utilities will be placed underground within the building complex. This would primarily involve extensions of existing utility lines already serving other buildings on campus to extend these services to this new building. The specific location for these utility extensions will be developed during the project’s design.

**Classroom Facility Improvements**

This proposed building complex will provide a total of eight (8) additional classrooms. Figure 2.6 includes a Conceptual Building Floor Plan showing the proposed classrooms, designated spaces for specific programs, and administrative space for faculty and student services. There will be four (4) general classrooms (General Classroom No. 1 to 4) situated at the most makai (northwestern) end of the complex. These classrooms would have about 960 to 980 square feet of floor area. However, the exact floor area for these classrooms and other building facilities would be determined during the project’s design phase.

The classrooms along the longer building structure running parallel to Building I consist of classrooms with laboratory space for biology and chemistry. These rooms would be larger than the general classrooms as indicated by the dimensions shown on Conceptual Building Floor Plan having about 2,000 square feet of floor area including teacher offices.

A new food service educational program is planned to be provided at Waianae High School, therefore, a large classroom facility is being provided. As shown on the Conceptual Building Floor Plan, essentially space for two classrooms are being provided to serve the general classroom (General Classroom No. 5) and for a food services lab. Thus, about 2,560 square feet of floor area is being provided for this new program. In addition, an open outdoor eating area is planned to support activities generated from this food service program. This outdoor eating area is planned to be fenced with lockable gates on both front and back sides for building security.
Other support facilities being provided in this building include a faculty center room (840 sf) for use by school staff, a special education itinerant room and student services coordinator / educational assistance office (690 sf). Accessory facilities include restrooms for students, mechanical room, and electrical and telephone room.

Parking Lot Modifications

With construction of the new building complex, modifications will be required to the existing parking lot next to Building I. Currently, this parking lot has 97 marked stalls. However, only 77 permits are issued for faculty to park at this lot under the school’s campus parking system.

A total of 30 parking stalls will be affected at this parking lot which includes two (2) parking stalls which need to be used for a trash enclosure area. Several of these stalls affected involve handicap parking stalls that are provided along Building I. The removal of these parking stalls would allow the new building to be constructed utilizing a portion of this parking lot. In addition, the circulation path of this parking lot will be modified to be routed around this building resulting in the removal of some stalls. Figure 2.5 previously showed the parking lot modifications required. To mitigate this loss all of the 30 stalls affected will be replaced on the campus so the net effect is no change to the number of campus parking stalls.

To address this loss of parking stalls, eight (8) new parking stalls plus a loading zone stall are planned to be provided. These stalls would be located makai (west) of the current parking lot, and will include extending the parking lot pavement area in this direction as shown on the Conceptual Site Plan. Several existing standard parking stalls will also be re-striped to serve as handicap stalls to replace those removed by the new building. To offset the loss of the remaining 22 stalls, additional parking is planned to be created in another area of the school campus.

Additional parking stalls are proposed to be provided along a driveway running along the unlined drainage canal area near the school’s front parking lot exit driveway. There is an open grassed area located along this drainage canal that is currently used by faculty to park on. Although this area is not an official parking area that is paved and striped for stalls meeting parking dimension requirements, the school’s faculty use this area for parking since it is centrally located. A total of 22 paved parking stalls are thus planned in this area, and these improvements are shown on Figure 2.7 (Parking Site Plan).
This grassed area will thus be paved and striped to meet standard parking design requirements. In addition, other stalls will be created on the other side of this driveway as shown on the Parking Site Plan. Thus, a total of 22 paved parking stalls will be created in this popular area turning this into a standard designated parking area for the school. Consequently, there would be no change to the number of parking stalls affected by this project. The 30 stalls affected by the new building will be replaced by creating 30 parking stalls.

**Fire Access Lane Improvements**

A fire apparatus access lane with vehicle turnaround area will also be provided as part of modifications to the parking lot. As previously shown on the Conceptual Site Plan, the parking lot will be extended along the outside perimeter of this new building complex in the makai (northwest) direction for this fire lane. This 20-foot-wide fire access lane is required to provide vehicular access to the makai (shoreline) area of this new building for fire protection. Currently, there is no access provided for fire apparatus to get to this shoreline area to serve existing portables and other facilities in that area. Thus, this fire lane will satisfy City Fire Code requirements.

Creating this new fire lane will result in it encroaching into portions of the existing dirt berm routed along the shoreline. This is due to limited open space site conditions available in this area along with the 20-foot lane width requirements plus turnaround area. Therefore, portions of this dirt berm will be graded to allow construction of the fire lane. These areas affected were previously shown on the Conceptual Site Plan.

It is estimated that about 140 cubic yards of this berm may need to be excavated as part of grading activities. Because this berm is located near the shoreline, it is currently located within the 40-foot shoreline setback area based upon the recently certified shoreline survey. Consequently, grading activities may result in about 5 cubic yards of this berm being excavated within this shoreline setback area. However, the actual quantities will be determined as part of this project’s design phase when more detailed plans are developed.

**2.4 Development Schedule and Estimated Costs**

The State DAGS plans to initiate the design of this 8-classroom building project after completion of the Environmental Assessment and during the discretionary permit process. As a result, the design phase of the project will likely begin around July 2004. Consequently, construction of this project is likely to begin in 2005 and be completed within one year or sometime in 2006.
The estimated construction cost for this project is $4.0 million. The Department of Accounting and General Services is the expending agency for this project.

2.5 Listing of Required Permits

There are no discretionary land use approvals required from the State such as a State land use district boundary amendment because the school property is already designated Urban District. However, a Special Management Area Use Permit for the improvements proposed is required for this project because the Waianae High School property is within the County's Special Management Area. In addition, a Shoreline Setback Variance will likely be required since some grading activities within this setback area may be needed for the fire access lane.

The following permits listed would be required for this project:

**State of Hawaii Permits**
1. Construction Noise Permit
2. National Pollutant Discharge Elimination System (NPDES) Permit (for construction activities)

**City and County of Honolulu Permits**
1. Special Management Area Use Permit
2. Shoreline Setback Variance
3. Waiver from LUO for off-street parking and maximum building density requirements

2.6 Alternatives Considered

Alternatives considered to the proposed construction of the new 8-classroom building project consisted of: 1) not implementing the project (No Action Alternative), 2) delaying construction of the project, 3) alternative sites within the high school campus along with alternative building configurations. In summary, the No Action and Delayed Action alternatives were dropped from further consideration, because they would not adequately address the project need and objectives compared to promptly proceeding with the proposed improvements.

The proposed site for the new building was selected after considering various other sites within the Waianae High School campus. The site selected would minimize impacts on other school facilities along with the significant disruptions to the school's operations and daily activities. Finally, the proposed building design concept was carefully selected after reviewing
and evaluating other alternative concepts with Waianae High School administration, State Department of Education, and State DAGS.

**No Action Alternative**

The No Action Alternative would involve not proceeding with the development of a new classroom building to provide additional permanent facilities. This alternative would result in the continued shortage of available and suitable classrooms and facilities. Thus, portables would be the main facility used to address these facility shortages. The inconveniences and constraints associated with overcrowded conditions, and deficient classroom conditions will continue impacting students and faculty.

Unfortunately, it may be difficult for the school to implement their new food service educational program since existing classrooms don't have the necessary space and facilities to store required equipment, materials, etc. Consequently, initiation of this program will be delayed until other existing classrooms can be modified to accommodate this food service program. Such changes would like require relocating other programs to existing or new portable structures.

Consequently, this alternative was eliminated because it would not properly address the current need for new permanent classroom facilities. This alternative will not address the project's needs, alleviate space problems, and allow for the implementation of the school's new food service program. Further, funds for this project are being appropriated, and taking no action to construct the new building would result in the appropriation lapsing.

**Delaying Construction of the New Classroom Building**

The Delayed Action Alternative would involve postponing construction of the new classroom building to some date in the future. As a result, the current shortage of classroom space and other concerns with classroom overcrowding, noise, dust, and heat would continue.

This alternative was thus eliminated from further consideration because the same concerns as those stated in the No-Action Alternative would persist. Delaying construction to some date in the future would result in higher construction costs due to inflation. Furthermore, funding for the project is being allocated under the DAGS capital improvement program. Therefore, this funding would be lost if improvements were not implemented at this time.
Alternative Site Locations and Building Designs

Two alternative sites were considered for the new classroom building. These sites considered were: 1) a site somewhere on the existing baseball field, or 2) locating this building in the front of the campus along the highway where there are several portables now present.

Using the school's baseball field was eliminated from consideration because the new classroom building will take up too much space from the field. The baseball field does not have sufficient space to allow reconfiguring the field to accommodate the new building. Furthermore, trying to implement necessary field modifications may compromise the adequacy of its use and add to project costs.

Locating the new building in the area where existing portables are concentrated was similarly eliminated from consideration. This site would result in the removal or relocation of many portables, and contribute to increased project costs associated with this modification. The school will continue to need most of the existing portable classrooms to supplement their shortage of facilities. Thus, several of these portables would have to be relocated to other areas of the campus, and modifications made to utilities to provide service to relocated sites. Further, these changes would cause considerable disruptions to the school's activities especially if implemented during the school year.

Additional building designs were also considered and evaluated prior to selecting the proposed single-story building complex. Such designs consisted of modifications to the single-story structure and a two-story building structure. However, the two-story building configurations were eliminated because it would be more expensive to construct and requires additional height at the first floor to accommodate the facilities associated with the food service laboratory. The single-story structure would not require stairs or an elevator, costs less to provide air conditioning, and provides easier ventilation for the food service laboratory.
CHAPTER 3
PHYSICAL AND BIOLOGICAL ENVIRONMENT

This chapter describes the existing surrounding environment in the vicinity of the project site. The probable environmental impacts associated with the construction and operation of the water system improvements are discussed, and mitigative measures are identified if necessary.

3.1 CLIMATE, TOPOGRAPHY, AND SOILS

Climate

Climate on the Island of Oahu, as well as within the State of Hawaii, can be characterized as having low day-to-day and month-to-month variability. Differences in the climates of various areas are generally attributable to the island’s geologic formation and topography creating miniature ecosystems ranging from tropical rain forests to dryer plains along with corresponding differences in temperature, humidity, wind, and rainfall over short distances (Dept. of Geography 1998). Annual and daily variation in temperature depends to a large degree on elevation above sea level, distance inland, and exposure to the trade winds. On Oahu, the Ko olau and Waianae mountain ranges are oriented almost perpendicular to the trade winds, which account for much of the variation in local climatology.

Oahu’s temperatures have small seasonal variation such that the temperature range averages only 7 degrees between the warmest months (August and September) and the coolest months (January and February) and about 12 degrees between day and night. Daily maximum temperatures usually run from the high 70’s in winter to the mid-80’s in summer, while daily minimum temperatures run from the mid-60’s to the low 70’s, respectively. The average annual temperature recorded at Makaha Country Club in 2000 was 75.1 degrees Fahrenheit, and average monthly temperatures ranged between 70 and 78 degrees Fahrenheit (NOAA 2000).

Winds are predominantly “trade winds” from the east-northeast except for occasional periods when “Kona” storms may generate strong winds from the south, or when the trade winds are weak and land breeze to sea breeze circulations develop. Wind speeds typically vary between about 5 and 15 miles per hour providing relatively good ventilation much of the time. Lower velocities (less than 10 mph) occur frequently and the usual northeasterly trade winds tend to break down in the Fall giving way to more light, variable wind conditions through the Winter and on into early Spring.
Rainfall on Oahu is highly variable depending upon elevation and location with respect to the tradewinds. The Waianae region has a semi-arid climate with average annual rainfall of 0 to 20 inches along the coastline with higher mountain elevations receiving about 30 inches. Monthly rainfall averages less than 2 inches throughout most of the year. Most of the rainfall occurs during winter storms usually taking place from October through April. The annual rainfall recorded at Waianae in 2000 was 7.7 inches which was about 16.5 inches less than their annual average of about 24 inches (NOAA 2000).

**Topography**

The topography of the proposed site for the new classroom building complex is generally flat with no steep slopes (ex. greater than 20%). This is primarily due to the site utilizing portions of the existing paved parking lot and graded foundation for the recently constructed Classroom Building I. The immediate area around Building I similarly has a rather flat topography likely due to the prior construction activities (grubbing and grading) that occurred in the area. Figure 2.4 previously showed the existing topographic conditions associated with this project area. The only other topographic feature in the vicinity is an existing man-made dirt berm about five feet high which generally runs along the shoreline in this area.

Elevations from the shoreline inland to the project area and existing Building I range from 0 to 11 feet mean sea level (msl). Elevations of the project site vary between 8 and 10 feet msl. Elevations associated with the top of the existing dirt berm ranges from 11 to 15 feet msl.

**Soils**

As indicated in the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai* (SCS, 1972), Waianae High School is situated on land consisting of low intensity Coral outcrop (CR) with some Mokuleia clay (Mtb). The soil type identified for the new classroom building site is only Coral outcrop.

Coral outcrop consists of coral or cemented calcareous sand on Oahu, where coral reefs are exposed. The Mokuleia Series consists of well-drained soils along coastal plains of Oahu. These soil types formed in recent alluvium deposited over coral sand and are shallow and nearly level.

The following descriptions of the land and soils types are from the *Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai* (SCS, 1972):

- **Coral outcrop (CR)** Coral reefs formed in shallow ocean water when the ocean stand was at a higher level. Areas of coral outcrop are exposed on the ocean shore,
on coastal plains, and at the foot of uplands. Vegetation is sparse on this type of land, which is used for military installations, quarries, and urban development.

- **Mokuleia Clay (Mib)** Mokuleia clay formed in recent alluvium that deposited over coral sand. It is sticky, plastic, and nearly level, making permeability slow in the surface layer and workability difficult. This type of soil is used for sugarcane and pasture.

The soil classification information from this study was generally consistent with a foundation investigation conducted for the project. As part of this investigation, some soil borings were conducted of the building site. The boring results indicated that surface fill material was present within about 6 to 18 inches from the surface. This fill material consisted of medium dense tan silty coralline sand mixed with coralline and basalt gravel. Underlying this was medium dense to medium hard coral extending to the maximum depths drilled (14 to 15 feet) (Ernest K. Hirata & Associates, Inc., 2003).

**Probable Impacts From Construction Activity And Mitigative Measures**

Construction of the proposed 8-classroom building project will occur within a relatively confined area of the existing school property. Construction activities should involve minimal and short-term land-disturbing activities for this project since the existing topography of the area is already relatively flat or paved for the parking lot. Therefore, construction-related activities for this project should not have a significant impact on the site’s topography or soil conditions.

The proposed project would be constructed on land that appears to have already been disturbed and graded as part of the Building I construction. The existing man-made dirt berms built up along the shoreline in this area may likely be excavated material from that area. In addition, a portion of the site will involve the existing parking lot which is already paved further minimizing the amount of excavation and grading activities. The proposed additional parking area along the canal is similarly flat and disturbed from construction of the school campus.

There will be some excavation and grading of the existing dirt berm to allow construction of the new fire lane access road and turnaround area. Paving of the grassed area along the canal for the new parking addition near the school’s front parking lot is also not expected have a significant effect or change to this area since such work would be minimal.

Therefore, minimal grading and excavation is anticipated for construction of the new classroom building since the existing topography of the project site is already relatively level. The total area to be cleared and grubbed would be about 1.3 acres in size. A total of approximately 5,850 cubic yards of material may be affected by grading activities. This includes
about 5,000 cubic yards of the existing dirt berm embankment along the shoreline and another
850 cubic yards of other areas.

The finished grade of the new building will be elevated slightly to match the adjacent
Building I, and the final elevations would be determined during the project's design. Elevations
associated with the project site vary from 8 to 10 feet msl, and the finished grade for Building I is
about 11 feet. Therefore, the new building site would likely be elevated up to 4 feet.

Some excavation in the vicinity of the new building would be required for the installation
of utility lines to service the new classroom building. However such disturbances would be
temporary and generally limited to extensions from existing utility lines already serving other
buildings and facilities on the school campus.

To minimize potential short-term erosion impacts during construction activities, various
erosion control measures are available for implementation. Erosion control measures considered
to minimize effects during construction may include: use of temporary sprinklers in non-active
construction areas; stationing water trucks on the site during construction to provide immediate
sprinkling in active construction areas; use of temporary berms and cut-off ditches; use of
temporary silt fencing, sand bags, or screens; thorough watering of graded areas after
construction activity has ceased for the day; or sodding or planting slopes immediately after
grading work has been completed.

Construction management techniques that may be considered to minimize erosion include:
clearing and grubbing being held to the minimum necessary for grading and equipment
operation; sequencing of construction to minimize the exposure time of the cleared surface areas;
and checking and repairing control measures as necessary. Some vegetation controls considered
may include: not removing pre-construction vegetative ground more than 20 days prior to site
disturbance; applying temporary soil stabilization with appropriate vegetation on areas that will
remain unfinished for more than 30 days; and applying permanent soil stabilization with perennial
vegetation or pavement as soon as practical after final grading.

However, the actual pertinent measures implemented would be developed during the final
design of this project, and would comply with the City’s Erosion and Sedimentation Control
regulations. A Grading Plan will be developed during the project’s design, and submitted to
pertinent City agencies for ministerial review and approval. Grading and construction activities
will also be performed in accordance with applicable provisions of permits obtained from the
City and State Department of Health (ex. NPDES) as necessary.
Other Construction Related Disturbances

Dust, noise, odor, and traffic disturbances associated with construction activities are not expected to significantly impact the surrounding environment. Fugitive dust is expected to be minimal because construction would involve relatively minor grading and excavation activities. Furthermore, the soil type identified at the project site is mainly Coral outcrop which is less susceptible to generating significant fugitive dust emissions as compared to other agricultural soil types. Dust control measures would be considered, including the implementation of a watering program, to minimize soil loss from fugitive dust particulate emissions. Other measures include practices of good construction management at the job site and the paving or planting of bare areas when practicable.

Construction-related noise may have an impact upon students and faculty at the school since construction activities may occur during the school year and during regular school hours. However, this would be a temporary impact, as construction will only last until completion of the project. A noise variance for construction activities from the State Department of Health would be obtained by the contractor, and the requirements under that permit complied with. Further measures to mitigate noise disruptions to the school would include erecting temporary plywood noise barriers. These noise barriers will be placed between the construction area and Building I and portable classroom buildings (P23 and P28) that will be remaining. These noise barriers will be constructed in accordance with State DARGS and DOE specifications.

Odor, if any, would be a negligible disturbance to those near the project site. Finally, traffic impacts by construction vehicles on surrounding roadways should be minimal since construction of the building will occur at the project site which is located away from roadways and highways used by the general public. The only additional traffic generated on surrounding roadways would be that associated with construction workers traveling to and from the site.

There would be some short-term disruptions to the existing parking lot near Building I due to construction of the project along with the grassed area and driveway along the drainage canal from the creation of parking stalls there. However, such disruptions should not have a significant impact on parking at the school since temporary parking areas on the campus would be created to accommodate those faculty affected by construction activities.

Necessary measures would be developed throughout the project’s design and coordinated with appropriate agencies for review. In addition, required permits from the City would be obtained after the preparation of plans subject to City review and approval for implementation. Construction activities would need to comply with pertinent Administrative Rules of the State.
Department of Health such as Title 11, Chapter 46 (Community Noise Control), and Chapter 60.1 (Air Pollution Control).

The school’s two existing portables No. 26 and 27 which are located within the new building’s project site will need to be demolished and appropriately disposed of. These portables were constructed as part of the school’s initial development and are thus old. Consequently, they cannot be relocated to another area of the campus for us since they would have be torn down and rebuilt.

As part of normal demolishing procedures, environmental testing and other studies will be conducted to evaluate the potential of hazardous material present. The demolition and disposal of materials would then be performed by the contractor in conformance with Federal, State, and City regulations and procedures. Design specifications would include appropriate mitigative measures to contain and minimize impacts from such materials such as conducting soil testing to evaluate potential contamination from demolition work.

3.2 **Natural Hazards**

This section addresses only those natural and urban-related hazards applicable to the project site. Of the potential natural hazards, only earthquakes, hurricane, and flooding hazards are applicable. These natural hazards are addressed below.

**Earthquake Hazards**

Although difficult to predict, an earthquake of sufficient magnitude causing structural or other property damage may occur in the future. However, except for the island of Hawaii, the Hawaiian Islands are not situated in a high seismic area subject to numerous earthquakes (Macdonald et al. 1983). Most of the earthquakes that have occurred in the past have been volcanic earthquakes causing little or no damage.

Earthquakes in the Hawaiian Islands are primarily associated with volcanic eruptions from the inflation or shrinkage of magma reservoirs beneath which segments of the volcano shift (Macdonald et al. 1983). Oahu is periodically subject to episodes of seismic activity of varying intensity. Available historical data indicates that the number of major earthquakes occurring on Oahu have generally been fewer and of lower magnitude than those on other islands such as Hawaii (DBEDT 2001, Furumoto, et al. 1973). However, earthquakes cannot be avoided or predicted with any degree of certainty, and an earthquake of sufficient magnitude (greater than 5 on the Richter Scale) may cause damage to the proposed new classroom building.
Although the possibility of earthquakes on Oahu has been lower than that on other islands, potential damage to school facilities may occur from an earthquake of sufficient magnitude. However, damages to the new building would be minimal because appropriate City building code standards will be followed. Thus, the risk of potential damage to this project will be no greater than that of similar homes, businesses, and other school facilities on the island of Oahu.

**Hurricane Hazards**

The three major elements that make a hurricane hazardous are: 1) strong winds and gusts, 2) large waves and storm surge, and 3) heavy rainfall (FEMA 1993). A hazard mitigation report prepared by the Federal Emergency Management Agency after Hurricane Iniki in 1992 determined that nine hurricanes approached within 300 nautical miles (about one day's travel time) of the Hawaiian Islands’ coastlines between 1970 and 1992 (FEMA 1993). Most hurricanes affecting the islands have focused on Kauai. Based upon a tracking of hurricanes since 1950, there appears to be no geographical or meteorological reasons why hurricanes miss other islands and tend to steer toward Kauai (FEMA 1993).

A hurricane of significant strength and high winds passing close to the island could cause damages to the facilities at Waianae High School. The proposed classroom building could similarly be susceptible to damage from high winds and storm surge. However, the building would be constructed of concrete minimizing its susceptibility to structural damage, and should thus be at no greater risk of damage than other school facilities. The classroom building complex would also be designed and constructed in conformance to applicable City and County building codes. Thus, the risk of potential damage from high winds should be minimal.

**Tsunami Inundation And Flooding**

The Waianae High School campus property falls within Zones AE and VE of the 100-year flood hazard area and Zone X as designated on the Flood Insurance Rate Map (FIRM) Community Panel Number 15001 0100C (1990) prepared by the Federal Emergency Management Agency (FEMA, 1990). The entire campus and surrounding areas are within the tsunami evacuation zone as identified by the Oahu Civil Defense Agency.

At this campus, the areas near the shoreline generally fall within Zones AE and VE which are flood hazard areas that are inundated by the 100-year flood. Zone X depicts areas of the 500-year flood or areas of the 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from the 100-year flood (FEMA,
1990). The preliminary Site Plan figure in Chapter 2 showed the flood zone boundaries associated with the new classroom building project site.

In general, the Zone VE hazard area generally extended from the shoreline up to the existing man-made earth berm present along the shoreline. Zone VE represents a hazard area for coastal flood with velocity due to wave action. Base flood elevations of this zone have been measured at 12 and 13 feet based upon the FIRM. The new classroom building structure would approach up to about 45 feet from this Zone VE boundary based upon the Site Plan. However, the existing earth berm provides some protection for this new building from high waves since the height of this mound is about 15 feet above mean sea level.

Above (mauka) this Zone VE area is the Zone AE hazard area which encompasses the entire new classroom building project site. This hazard area generally extends about 350 feet inland from the Zone VE boundary and thus also includes most of the school’s existing parking lot, Building I, portables and other campus areas. Zone AE base flood elevations were determined to be between 11 and 13 feet based upon the FIRM.

The Zone X flood area includes the land area situated above the Zone AE hazard area. This new building structure is not located within this Zone X area, however, some of the modifications to the existing parking lot would occur within this flood area. The additional parking area being created along the canal near the school’s front parking lot is located within this Zone X area.

Any major tsunami can subject the entire Waianae coastline to severe damage which includes potentially damaging the new building as well as other structures on the campus. While the potential for damage exists, this risk shall be minimized through strict adherence to flood zone and building code requirements. Furthermore, as the entire campus would be evacuated in the event of a tsunami warning, the new classroom building would not, in and of itself, increase the risk for loss of life on the campus as the result of a tsunami.

Proposed facilities and structures associated with this new classroom building project are expected to be designed and constructed in compliance with Building Code requirements for structures within the flood zone. The building’s design will also comply with applicable flood district requirements specified under the Section 9.10 of the Land Use Ordinance. Coordination would be conducted with the City as part of normal plan review and approvals during the project’s design. Consequently, the project is not expected to be significantly affected by flood or tsunami inundation or change the existing topography or drainage conditions of the area increasing potential flood areas.
3.3 Air Quality

Ambient air quality standards (AAQS) have been established by both Federal and State governments that limit ambient concentrations of particulate matter less than 10 microns (PM₁₀), sulfur dioxide, nitrogen dioxide, carbon monoxide (CO), ozone, and lead. In addition, a State standard has been established for hydrogen sulfide. State AAQS are more stringent than the comparable national limits (NAAQS) except for the standards for sulfur dioxide, particulate matter and lead, which are set at the same levels. A summary of both State and National AAQS is presented below.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Sampling Period</th>
<th>NAAQS Primary</th>
<th>NAAQS Secondary</th>
<th>State Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter Less Than 10 Microns (PM₁₀)</td>
<td>Annual</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>150</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>Annual</td>
<td>80</td>
<td>n/a</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>24-Hour</td>
<td>365</td>
<td>n/a</td>
<td>365</td>
</tr>
<tr>
<td>Nitrogen Dioxide</td>
<td>Annual</td>
<td>100</td>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>8-Hour</td>
<td>10</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1-Hour</td>
<td>40</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td>Ozone</td>
<td>1-Hour</td>
<td>235</td>
<td>235</td>
<td>n/a</td>
</tr>
<tr>
<td>Hydrogen Sulfide</td>
<td>1-Hour</td>
<td>n/a</td>
<td>n/a</td>
<td>35</td>
</tr>
<tr>
<td>Lead</td>
<td>Quarter</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Note: All concentrations in micrograms per cubic meter (μg/m³) except for carbon monoxide which is in milligrams per cubic meter (mg/m³).

Hawaii’s standards are not divided into primary and secondary standards as are the National standards. Primary standards are intended to protect public health with an adequate margin of safety while secondary standards are intended to protect public welfare through the prevention of damage to soils, water, vegetation, man-made materials, animals, wildlife, visibility, climate, and economic values.

Air quality in Hawaii is generally characterized as relatively clean and low in pollution. Northeast tradewinds that are predominant throughout the year typically carry emissions and other air pollutants from inland areas out toward the ocean.

The State Department of Health (DOH) has monitoring stations on the Island of Oahu, however, none of them are located in the Waianae district. Based upon the State DOH’s 2002 air quality data for the Island of Oahu, there were no occurrences of PM₁₀, ozone, sulfur dioxide, or hydrogen sulfide greater than the National or State standards. There were also no occurrences of either 1-hour and 8-hour measurements of carbon monoxide exceeding National or State standards (CAB, 2002).
Probable Impacts And Mitigative Measures

Impacts on ambient air quality associated with this project would primarily be limited to short-term construction activities. Once completed, there would essentially be no activities occurring within the new classroom building complex that would generate significant amounts of air pollutants exceeding State or National standards. Furthermore, construction of this new building would not generate additional vehicular traffic that may significantly increase carbon monoxide emissions in the area. This new building is designed to accommodate the school’s student enrollments and provide improved facilities to better serve them.

Short-term and minor impacts on air quality from construction activities would predominantly be associated with fugitive dust emissions and exhaust emissions from on-site construction equipment. Fugitive dust emissions would generally arise from clearing, grading, and other dirt moving activities associated with site clearing and ground preparation for the new classroom building. Given the existing site conditions and already paved parking lot area, such fugitive dust emissions should thus be minimal since site work should be limited.

Impacts from such construction activities would be temporary and should not result in a significant impact on air quality or result in State or National ambient air quality standards being exceeded. Nevertheless, minor impacts associated with fugitive dust emissions would be mitigated through the implementation of a dust control plan. Construction scheduling combined with dust control measures would minimize air quality impacts such that the least number of students, faculty, and staff are affected by work activities.

State air pollution controls prescribed under the Department of Health’s (DOH) rules (Chapter 11-59, HAR “Ambient Air Quality Standards” and Chapter 11-60.1, HAR “Air Pollution Control”) prohibit visible emissions of fugitive dust from construction activities at the property line. Therefore, a dust control plan would be prepared and implemented to have the contractor comply with these regulations. Adequate fugitive dust control can usually be accomplished by establishing a frequent watering program or implementing other measures to address grubbing and grading activities. Some measures that could be considered during the project’s design for implementation by the contractor may include:

1. Limiting the areas that are disturbed at any given time;
2. Applying chemical soil stabilizers, mulching, or using wind screens;
3. Establishing a road cleaning or tire washing program to reduce fugitive dust emissions from trucks using paved roadways in the project site; and
4. Establishing landscaping early in the construction schedule to control dust.
In addition to these possible measures, fabric dust barriers would be put up between the construction area and remaining parking lot to further minimize the effects of fugitive dust emissions on school activities and facilities. These dust barriers would have a minimum height of 12 feet, and will be installed in conformance with DADS and DOE construction specifications. Such measures would protect vehicles parked in the lot from dust emissions along with faculty and students attending classes in the immediate area.

On-site mobile and stationary construction equipment would also emit air pollutants from engine exhausts. Minor nitrogen dioxide emissions from construction equipment should not violate stricter State standards since such emissions would be short-term and the standards are set on an annual basis. Short-term carbon monoxide emissions from construction equipment would similarly be low and should be relatively insignificant.

Impacts from slow-moving construction vehicles would be mitigated by scheduling slow-moving vehicular travel during periods of low traffic volume on the affected roadways. Engine exhaust emissions from construction vehicles will be minimized via the proper operation and maintenance of all equipment to further limit potential air quality impacts. The fabric dust barriers installed around the construction area would further mitigate the short-term effects and nuisances associated with these other air pollutant emissions.

3.4 NOISE

Potential noise impacts associated with this project would mainly be associated with short-term construction activities. Existing noise levels on the Waianae High School campus are generally controlled by school activities and motor vehicle traffic on Farrington Highway. Such school activities at this new classroom building site are thus not expected to have a significant noise impact on surrounding properties which are Waianae Regional Park and the shoreline.

Short-Term Noise Impacts From Construction Activities

Noise from construction activities are regulated under Title 11, Chapter 46 (Community Noise Control) of the State DOH’s Administrative Rules. Under these regulations, the new classroom building project site is situated within a General Preservation zone district (Class A). Therefore, the maximum permissible sound levels for construction activities is 55 dBA during daytime (7:00 a.m. to 10:00 p.m.) hours and 45 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.). These levels may not be exceeded at or beyond the property line for more than 10 percent of any continuous 20-minute period.
Construction-related activities will temporarily increase ambient noise levels within the vicinity of the work area. Potential noise sources will include construction vehicles, trenching work, and other power equipment. Measures to control construction noise include the use of mufflers on power equipment and vehicles. Construction activities are expected to be limited to regular workday hours (7:00 a.m. to 3:30 p.m., Monday through Friday). All construction-related vehicles traveling on the roadways must also meet the vehicle noise level requirements set by the DOH.

Additional measures to be implemented to mitigate noise disruptions to the school would include putting up temporary plywood noise barriers. These noise barriers will be placed between the construction area and Building I and existing portable classroom buildings (P25 and P28). These noise barriers will be constructed in accordance with State DAGS and DOE specifications.

Thus, construction activities are not expected to result in a significant impact. If necessary, a permit would be obtained from the State DOH to allow these activities. Specific permit restrictions for construction activities are:

1. No permit shall allow construction activities creating excessive noise before 7:00 a.m. and after 6:00 p.m. of the same day.
2. No permit shall allow construction activities that create excessive noise before 9:00 a.m. and after 6:00 p.m. on Saturdays.
3. No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on holidays.

3.5 **Visual Resources**

There are no unique natural or topographical features, landmarks, or other land forms of significant or important visual character known to be present on the project site or in the immediate vicinity of this school campus. As discussed in Chapter 2 and shown on the site photographs in Appendix A, the project site would consist of a portion of the existing parking lot and open dirt area along Building I.

Based upon the *Coastal View Study* completed for the Department of Land Utilization (now known as the Department of Planning and Permitting), there were no significant scenic and open space viewing points for the public on the Waianae High School campus site (Chu, 1987). The *Waianae Sustainable Communities Plan* similarly did not identify any significant scenic or viewing points on the campus. The school property is already developed as a public high school,
with views from Farrington Highway towards the ocean are obstructed by several school buildings and other facilities.

Consequently, the new classroom building is not expected to have a significant impact on existing views of significance or important visual resources. This building will be a single-story building as compared to existing two-story buildings on campus such as Building I. Thus, the height of this building structure will not be taller than other surrounding buildings and should be consistent with the height limits established under the LUO for this site. This will minimize visual obstructions of the coastline from mauka properties, and not interrupt existing viewing areas or scenic points in the Waianae region or along Farrington Highway.

3.6 HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

3.6.1 Historic and Archaeological Resources

Due to the development of the high school campus, addition of various facilities, and utility improvements conducted over the many years, there are no known historic sites situated on the proposed project site. Waianae High School has been in existence since the mid-1950s and many improvements have been made on the school property over those years.

Research of the State Historic Preservation Division’s (SHPD) web site determined that there were no prior available archaeological studies conducted for the project site, or the immediate area. Further, the web site provided no indication that there were any historic sites recorded in the school property. This included review of a listing of National and State Register of Historic Places, dated January 2000, published by the SHPD.

The proposed site for the new 8-classroom building complex will be between existing Building I and the paved parking lot. As a result, this site consists of a portion of the paved parking lot and developed area next to Building I which has been significantly disturbed already. Existing man-made earth berms along the shoreline may have been created from grubbing and grading activities associated with the recent construction of Building I and the parking lot in 1993. In addition, various underground electrical, water, sewer lines, and drainage improvements likely traverse the project site and immediate surrounding area.

As shown on the site photos in Appendix A, there are no surface historic sites visibly present on the property. It appears the project site and surrounding area have been greatly disturbed over time as part of the campus development. Portions of the project site already include the existing paved parking lot. The existing dirt berms along the shoreline also appear to have been created as part of prior grading activities within the project area for the construction of
school buildings and other surrounding facilities. The results of a cultural impact assessment conducted for this project, and discussed later, also determined that the project site should not have historic sites present due to prior land disturbances.

Although no known archaeological or cultural resources exist on the project site or immediate area of this school campus, subsurface historic sites such as cultural layers or human burials may be discovered during construction. However, the probability of encountering such subsurface sites such as burials appears to be very low based upon prior disturbance of the area and the cultural assessment study results. A soils study performed included soil borings which determined that the site is underlain by fill and coral. Furthermore, the new classroom building is planned to be constructed on top of about 4 feet of fill material since the finished grade elevation will need to be raised above the existing grade. Therefore, the amount of subsurface disturbance of existing soils should be minimal.

Therefore, the proposed project is not expected to have a significant impact on historic or archaeological resources. This assessment result was confirmed based upon a letter received from the SHPD dated March 19, 2004 and included in Appendix B of this document which determined that no historic properties will be affected by this project.

In the event subsurface human remains or other indications of human activity older than 50 years are encountered during construction activities, all work would stop immediately and the SHPD notified. The treatment of any human remains encountered would be determined, and conducted in accordance with the applicable requirements of Chapter 6E, HRS, and Chapter 13-300, HAR. Furthermore, as a precautionary measure, construction personnel involved in development activities on the site would be informed of the possibility of inadvertent cultural finds, and would be made aware of the appropriate notification measures to follow.

3.6.2 Cultural Resources

A cultural impact assessment was performed for the project by Cultural Surveys Hawaii, Inc. and is included in Appendix C of this document. The function of this Cultural Impact Assessment was to document and evaluate the effects the planned project may have on native Hawaiians or any other concerned ethnic group in terms of their culture and their rights to practice traditional customs. The scope of this study included:

1. Developing a cultural landscape background through the examination of historical documents, Land Commission Awards, and historic maps for the purpose of
identifying traditional Hawaiian activities including gathering of plants, animal and other resources or agricultural pursuits.

2. Review existing archaeological information pertaining to sites present on the property to reconstruct traditional land use activities, and identify and describe the cultural resources, practices and beliefs associated with the parcel.

3. Conduct limited consultations with kūpuna knowledgeable regarding the project area vicinity (CSH 2004).

**Historical Background of Area**

Historic documentation researched for the Waianae District suggested the district’s significance and association with the aliʻi (royalty) in prehistoric times. By the time of the first contact with European expeditions during the latter eighteenth century, Waianae Valley appeared to remain the primary place of settlement within the Waianae district.

Mid-nineteenth century Mahele documentation indicated there were habitation sites and ʻaloʻi in the vicinity of the classroom building project area. Since 1957, the project area has been a portion of the Waianae High School campus property.

**Previous Archaeological Research**

Archaeological studies conducted within the Waianae district suggested that the earliest permanent habitation of the district was focused in the Waianae Ahupuaʻa along Kaupuni Stream. The elaboration and expansion of settlement throughout this ahupuaʻa during the prehistoric period was supported by the number and variety of sites recorded during the first investigation of Waianae during the 1930's and in subsequent investigations throughout the twentieth century.

No traditional burials have been documented within the current classroom building project area. The incorporation of the project area within the high school grounds since the 1950s has eliminated any surface sites related to traditional Hawaiian culture that may have been present previously. In the absence of surface evidence, traditional practices within the region including the present project area may have consisted of both permanent habitation sites and temporary camps associated with fishing and other ocean gathering activities.

**Community Consultation**

An effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about traditional cultural practices specifically related to the project area. This effort was conducted by
sending letters, emails, telephone calls, and in-person contacts. In all, contact efforts were initiated with a total of 26 individuals, and a listing of these individuals is provided in the cultural assessment study in Appendix C.

Two informants with knowledge of the planned project area were interviewed. Mr. Dino Pacheko participated in an informal face-to-face interview “talk-story” session and Mr. William Aila participated in a telephone interview. A summary of these interview results are as follows:

1. Mr. Pacheko. Commented that he was very familiar with the proposed project area because of his job as Head Custodian at Waianae High School. He did not know of any cultural practices of this area other than fishing makai of the school. The school was in need of new buildings, and in this case there was room to build it, and it will have a nice view when finished.

2. Mr. Aila. He was raised in Waianae where he presently resides, and is the Waianae Harbor Master where he has been employed for the past 18 years. He was also a member of Hui Malama which is a Hawaiian organization advocating for the proper treatment of Native Hawaiian burials. He commented that because of previous development on the property, there was very little possibility of burials or archaeological sites in the planned project area. As far as the general history and land use of this area, it was famous for fishing and had agricultural connections with taro and the village of Mā'ili. Makai (seaward) of the school, along the shoreline were places for gathering limu and salt.

**Conclusions on Traditional Cultural Practices**

In summary, the project is expected to have minimal or no impact on Hawaiian culture, its practices and traditions. A discussion supporting this determination is provided. These findings support the assessment results that no historic properties will be affected by this project as indicated in a letter from the SHPD dated March 19, 2004 and included in Appendix B.

1. **Gathering for Plant Resources.** Upland resources were utilized by Hawaiians for a multitude of purposes. Forest resources were gathered for the basic needs of food and clothing, tools, weapons, canoe-building, house construction, dyes, adornment, hula, medicinal, and religious purposes. Within the project area, there were no specific documentation found in regards to gathering of plants during traditional Hawaiian times. There were no on-going practices related to traditional gathering rights identified during the study. Furthermore, none of the individuals contacted or interviewed identified any native gathering practices within the project area.
2. **Marine Resources.** The sea is a rich resource and the Hawaiian people were traditionally expert fishermen. Fish of all types supplied the Hawaiian diet with a rich source of protein, and the gathering of seaweeds and salt was practiced by Hawaiian women. It was likely that there were activities related to early Hawaiian gathering practices from rich marine resources makai (seaward) of the project area. Today, members of the Wai'anae community continue to fish along the shoreline makai of the project area.

3. **Historic Properties.** There were no historic properties or archaeological sites identified within the vicinity of the proposed new classroom building project area.

4. **Burials.** No specific documentation was found regarding 'iwi (bone) in the project area. In a personal communication by telephone, Kupuna Frenchie DeSoto mentioned, "Due to previous development I doubt if there are any burials in the area where they are planning to build". None of the other people contacted mentioned any burials that would be affected by the proposed project.

5. **Trails.** Trails served to connect the various settlements throughout the District of Wai'anae. Based on nineteenth and twentieth century maps, the primary transportation routes mauka/makai correlated closely to the existing major roadways. No other specific historical documentation was found identifying any trails within the current project area (CSH, 2004).

### 3.7 **BIOLOGICAL ENVIRONMENT**

#### 3.7.1 Botanical Resources

Vegetation present on the project site is currently minimal since the majority of the site consists of dirt, and a portion of it will be the paved parking lot. Much of the existing vegetation on the site was likely disturbed from the previous construction of Building I and parking lot.

None of the vegetation within this project site or within the Wai'anae High School campus are known to be Federal- or State-listed threatened or endangered, or candidate threatened or endangered species. Also, there are no known natural or historic wetlands in the project site or in the immediate area. Therefore, the project is not expected to have a significant impact on botanical resources.

#### 3.7.2 Avifauna and Fauna

No avian species listed as endangered, threatened, proposed, or as a candidate species by the U.S. Fish and Wildlife Service or by the State of Hawaii under its endangered species
program are known to be present on the project site or in the immediate vicinity of the school campus. The project site is not located within a State designated Natural Area Reserve nor is it within an area designated as habitat for the recovery of Hawaiian forest birds (FWS, 2003).

Urbanized areas like this school campus typically provide no suitable habitat for threatened, endangered or candidate fauna species presumed or known to reside on the island of Oahu. This includes the Hawaiian hoary bat (*Lasius cinereus semotus*), the Hawaiian or Oahu tree snail (genus *Achatinella*), the Hawaiian owl (*Asio flammeus sandwichensis*) and the Oahu creeper (*Paroreomyza maculata*).

Avian species present on the project site would likely consist of introduced species such as various types of pigeons and doves, babblers, silvereyes, saltators, and cardinals. Vegetation on the project site consists predominantly of introduced species and weeds, and there are no wetlands present on the project site or in the immediate vicinity which may serve as important nesting or foraging habitat for endangered or threatened species. Therefore, the project should not have a significant impact on important avian species.

Mammals present on the project site would likely consist of feral mammals typical of surrounding lands. No mammals were observed at the project site during a recent visit to the property. Mammals likely to be present in the area include feral or domestic dogs (*Canis familiaris*), Indian mongoose (*Herpestes auropunctatus*), and feral cats (*Felis catus*). Although no rodents were detected, it is likely that Roof rats (*Rattus r. rattus*), Norway rats (*Rattus norvegicus*), and possibly Polynesian rats (*Rattus exulans hawaiensis*) as well as House mice (*Mus musculus*) may be present in the surrounding area (van Viper, 1982).

There are no known federally listed endangered, threatened, proposed, or candidate mammalian species likely to be present on the project site or in the immediate vicinity. The project site does not contain wetlands or other important habitat that are suitable for such species. Existing mammalian species present are introduced species all of which are predators to avian populations. Consequently, construction of this classroom building project is not expected to have a significant impact on important avian or mammalian species that may be present in the area.

### 3.7.3 Hydrogeological Resources

Under the State's Water Resource Protection Plan, aquifers of the Island of Hawaii have been classified under an aquifer coding system to identify and describe these aquifers. This system is comprised of Aquifer Sectors, and then Aquifer Systems located within these sectors. An Aquifer Sector reflects an area with broad hydrogeological (subsurface) similarities while
maintaining traditional hydrographic (surface), topographic and historical boundaries. The Aquifer system is an area within a sector that is more specifically defined by hydrogeologic continuity, particularly hydraulic connections among aquifer types and units.

The Waianae High School campus is situated within the Waianae Aquifer Sector (303). This sector includes the hydrologic units of Nanakuli, Lualualei, Waianae, and Makaha as separate systems, and Keaau as the system extending beyond Makaha up to Kaena Point. The classroom building project site, as well as the entire high school campus, is situated within the Waianae hydrologic unit (30303).

The geology of this Waianae Aquifer Sector is dominated by the caldera and rift zones of the Waianae volcano, and deep sedimentary fill in the valleys. Groundwater within this aquifer sector exists primarily as brackish to fresh basal lens existing in the dike compartments. Caprock, although thick and extensive, does not play an important role in supporting a fresh water lens. Rainfall is a primary source of groundwater recharge (CWRM, 1990).

The Waianae Aquifer Sector has an estimated sustainable yield of 15 million gallons per day (mgd). The Waianae System (30303), in which the high school is situated, has an estimated sustainable yield of 3 mgd.

**Probable Impacts And Mitigative Measures**

Construction of the new classroom building is expected to have minimal impact on the surrounding groundwater system. The small increase in developed impervious surface from this project would inevitably decrease the amount of localized groundwater recharge occurring at the project site. However, this decrease is expected to be negligible and ultimately inconsequential to the overall function of the area’s natural hydrological system. Further, the project site is located near the shoreline reducing the importance of groundwater recharge occurring in this area. As a result, the project should not adversely impact the underlying aquifer system nor contaminate potable water sources.
CHAPTER 4  
ECONOMIC AND SOCIAL FACTORS

The section discusses the project’s probable impact on economic and fiscal factors. Due to the nature of improvements proposed for this project, impacts would primarily be associated with construction-related activities.

4.1 ECONOMIC AND FISCAL FACTORS

Construction of the new school building should have a small minor positive economic impact mainly associated with the creation of short-term construction related jobs.

Construction Related Jobs

The preliminary estimated construction cost for planned 8-classroom building is estimated to be about $4,000,000 as discussed in Chapter 2. As a result this construction project would create several construction jobs over the anticipated one-year construction period.

Direct construction jobs would typically consist of on-site laborers, tradesmen, mechanical operators, supervisors, etc. Based upon the construction budget, it was estimated that about 31 new direct construction jobs would be created by the project. Direct construction jobs created would also stimulate indirect and induced employment within other industries on the island such as retail, restaurants, material distributors, and other related businesses supporting the construction industry. It was estimated that another 39 indirect and induced jobs could be generated by this project for a total employment impact of 70 jobs.

These new jobs would generate additional personal income for construction workers of approximately $1.52 million. Personal income is defined as the wages paid to the direct construction workers or operational employees associated with a development. It is anticipated that these construction jobs would likely be filled by residents from the Island of Oahu employed within the construction industry. Indirect and induced income would also be generated on the order of approximately $1.33 million from this project.

Fiscal Factors

Fiscal impacts associated with this project would primarily involve slightly additional tax revenue generated to the State. Tax revenue sources for State government would be composed primarily of general excise taxes (GET) on development costs and construction materials, corporate income tax, and GET on construction income spent by workers. In addition, GET
taxes on indirect and induced income spent stimulated by the spending of direct income would also contribute new revenues to the State. The approximately $4.0 million expended for construction of the project would therefore generate tax revenue of approximately $380,000 to the State.

Since City revenues are primarily limited to property tax revenues, there should be minimal changes to the City revenues. The improvements planned for the Waianae High School property should contribute to its property value, however, this increase is expected to be minimal. No changes to the property values or existing surrounding residences are also anticipated from this project. This project would not generate any new in-migrant residents to the island of Oahu. Thus, there would not be any effect on State and City operational expenditures for public services.

4.2 Social Impact Factors

The proposed new classroom building project is not expected to change the existing resident population in the Waianae community or region. This project is a State-initiated capital improvement project for the Waianae High School campus. There are no new residential units or visitor units associated with this project, and no in-migration of individuals to reside within the City would result. As a result, there should be no impact on the existing resident population.

This project would also not change or alter the character of the Waianae community or the character of the Waianae district. The project essentially adds another building to the Waianae High School campus, which would address issues internal to the school itself. Consequently, this project would not change existing uses in the surrounding area or have a significant impact on surrounding land uses.

4.3 Secondary and Cumulative Impacts

Secondary Impacts

Secondary impacts, or indirect effects, are effects which are caused by an action and are later in time or farther removed in distance, but are still reasonably foreseeable. Such effects may include growth inducing impacts and other effects related to changes in land use patterns, population density or growth rate, and related effects on air, water, and other natural systems. The proposed project is expected to have minimal if any secondary impacts on resident population, land use patterns, public facilities and infrastructure, and the natural environment.
Construction of this project is expected to generate only minor short-term impacts associated with these activities. Creation of short-term construction jobs are not expected to generate a substantial number of workers in-migrating to the Island of Oahu to fill these jobs. It is anticipated that qualified local contractors on the island or within the State of Hawaii would likely be used for the project’s construction. These workers would thus have minimal if any effect on the City’s residential population or housing demand.

This project would not affect the City’s resident population growth projected for the Waianae region, and thus not generate the associated secondary effects on infrastructure, public facilities, and housing. Although the project would improve the school’s facilities, such enhancements are not expected to significantly affect the City’s rate of in-migration or potential relocation to the Waianae district area. Such decisions would be more appropriately based upon economic factors (jobs), housing supply and costs, etc.

Cumulative Impacts

Cumulative impacts are effects on the environment which result from the incremental impact of a project when added to past, present, and reasonably foreseeable future actions. The cumulative impacts associated with this new classroom building project includes assessing the implementation of this project to evaluate it, and incorporate other known planned improvements within the study area that would effect or be affected by the project.

The only other known development that would occur in the immediate vicinity of the new classroom building site is the planned improvement to the Waianae High School’s baseball field by the State DAGS. DAGS plans to add a women’s softball field located inside of the existing baseball field’s centerfield fence. Consequently, the construction of these improvements may occur concurrently with construction activities for the new classroom building. The softball field improvements would be relatively minor estimated to cost only about $194,000 to construct, and consist of items such as a new skinned infield, portable outfield fencing and bleachers for fans, backstop fencing, dugout structures, and minor field improvements.

As a result, the only cumulative impact associated with the women’s softball field improvements and the new classroom building proposed would be short-term construction related effects. The assessment results discussed in this document incorporated all improvements associated with the new classroom building project which included the parking improvements to the school’s campus.
The cumulative impact from construction related activities for the new classroom building and softball field are not expected to be significant. The softball field improvements should be relatively minor in terms of activity since no major grading or other site improvements are expected at the existing baseball field. Most of the improvements would be installing structures (ex. fencing, dugouts, etc.) and other field modifications to support portable structures installed during games (ex. outfield fencing and bleachers).

Best management practices such as erosion control and other mitigative measures would be implemented by the contractor during construction activities. This includes compliance with all applicable permits and regulations such as those concerning noise control and air quality. Softball field improvements would also occur over a shorter construction period (few months) than the new classroom building project. As a result, there should be minimal if any disruption to construction activities occurring for both projects due to them overlapping in timeframe. Furthermore, such activities should not adversely impact the school’s operations and activities. The softball field improvements are located at the far northeast corner of the campus where there are no classrooms located nearby.

Therefore, the discussion of impacts presented within this document has included the cumulative effects associated with the project and other reasonably foreseeable future actions being implemented. The assessment results in this document show that there are no major cumulative impacts associated with this project.
CHAPTER 5
INFRASTRUCTURE FACILITIES

This chapter discusses the project's probable impact on infrastructure facilities serving the project site and surrounding area. Due to the nature of improvements proposed for this 8-classroom building project, most of the impacts would be associated with construction-related activities.

5.1 WATER FACILITIES

The potable water system currently servicing the Waianae District consists of source wells in Makaha: the Makaha shaft (2), Kamailie Wells, three wells in Waianae Valley, the Waianae Tunnel and the Plantation Tunnel. The City and County of Honolulu's Board of Water Supply (BWS) conveys potable water to users through a system of water mains that follow the major roads in the district: Farrington Highway, Nanakuli Avenue, Heleakala Avenue, Hakimo Road, Kaukama Road, Paakea Road, Mailili Road, Lualualei Homestead Road, Waianae Valley Road, and most of the major roads in Makaha Valley (DPP, 1999).

Waianae High School is served via a distribution main that runs along Farrington Highway. Completion of this new building would likely result in a small increase in water demand associated with this high school. However, this increase is not expected to have a significant impact on the BWS water system or source capacity.

According to a letter from the BWS, dated November 25, 2003 and included in Appendix B, the existing water system is presently adequate to accommodate the proposed project. Furthermore, the applicant shall apply for a water allocation from the Department of Land and Natural Resources, and pay the Board of Water Supply its Water System Facilities Charges for transmission and daily storage when water is made available. Construction plans will be appropriately coordinated with the DWS during the design phase of this project, and the availability of water will be confirmed when ministerial permits are applied for. Therefore, this project is not expected to have a significant impact on water facilities.

5.2 WASTEWATER FACILITIES

Wastewater generated in the Waianae District is collected at the Waianae Wastewater Treatment Plant (WWTP) located north of Puu Mailili and south of Waianae Mall, approximately 1.4 miles away from the project site. Currently, the Waianae WWTP is
considered to have excess capacity to handle additional flows. The major sewer lines generally follow along Farrington Highway and the major valley roads, with the exception of Lualualei Valley, where the sewer lines do not extend beyond the more densely developed coastal zone. Wastewater from the Waianae High School campus is conveyed to the Waianae WWTP via a sewer line in Farrington Highway.

A sewer line extension will connect the new building to existing sewer lines serving the high school campus. This proposed development is expected to generate only minor additional wastewater flows. This new building will accommodate students enrolled at the high school, and subsequently would not generate any significant increase in students projected to attend this campus. The number of students attending this campus should essentially remain the same with or without the new building since a student’s or parent’s decision to enroll at this high school would not be based upon whether this building was present or not. However, the new food service educational program would likely generate additional wastewater flows due to the food service activities conducted.

Construction plans will be appropriately coordinated with the City during the design phase of this project, and necessary sewer improvements implemented to serve the new building. A Sewer Connection Permit Application has already been submitted and approved by the City for this project. Therefore, this project is not expected to have a significant impact on wastewater facilities.

5.3 DRAINAGE FACILITIES

There are no perennial streams in the coastal areas of the Waianae District and the average annual rainfall in the coastal plain is less than 24 inches. However, flood damage has occurred in the area from severe storms, including heavy rainfall from Kona storms, and high surf from coastal storms. As the result of studies performed in the 1950s by the West Oahu Soil Conservation District and the City, four large concrete-lined drainage channels were constructed to discharge storm water runoff into the ocean.

These channels are: 1) Kaupuni Stream Channel in Waianae that discharges into the northwestern side of Pokai Bay; 2) Mailiili Stream Channel that discharges into the ocean between Lualualei Beach Park and Maili Beach Park at Puu Mailiili; 3) Maili Channel that discharges into the ocean north of Maili Point; and 4) Ulehawa Stream Channel that discharges into the ocean south of Puu o Hulu Kai (DPP, 1999). Of these four drainage channels, the Kaupuni Stream Channel is closest to the project site, located approximately one-half mile southeast of the Waianae High School campus.
In addition to flooding problems, the entire Waianae coastline is subject to severe damage from any major tsunami. The Waianae High School campus is located along the shoreline makai of Farrington Highway at an elevation of approximately 10 feet above mean sea level (msl). The project site is located fairly close to the shoreline. The entire campus and surrounding areas are within the tsunami evacuation zone as identified by the Oahu Civil Defense Agency. Consequently, the campus would be evacuated in the event of a tsunami warning. A major tsunami could potentially damage the new building as well as other structures on the campus.

While the potential for damage exists, this risk shall be minimized through strict adherence to flood zone and building code requirements. Furthermore, as the entire campus would be evacuated in the event of a tsunami warning, the new classroom building would not, in and of itself, increase the risk for loss of life on the campus as the result of a tsunami.

As a result of its proximity to the ocean and the potential for high surf and tsunami inundation, the shoreline area of the high school property is located within Zones AE and VE of the 100-year flood hazard area, and Zone X of the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map for this area. As discussed in Section 3.2, the project area is situated within flood areas. Consequently, the building will be designed to meet both LUO flood district and Building Code requirements.

Surface runoff currently sheet flows from the project area to the shoreline where it is eventually discharged. With the project, existing drainage patterns will be maintained thereby directing runoff around the existing earth berms to the shoreline.

Development of this project should have minimal if any impact on the existing drainage system serving this area. Additional paved area created on the school property would increase the amount of impervious surface on the parcel. However, this increase will be minimal, and should have negligible if any effect on existing runoff quantities from this entire campus property. With the above improvements, existing drainage facilities serving this project site should be adequate to accommodate the new classroom building.

### 5.4 SOLID WASTE

Solid waste collection and disposal operations serving the Waianae District is provided by the City’s Department of Environmental Services, Division of Refuse Collection and Disposal. Solid waste from Waianae and from other Oahu districts is disposed of at the Waimanalo Gulch Sanitary Landfill and at the James Campbell Industrial Park H-Power energy recovery incinerator, both of which are located in the Ewa District of Oahu. Construction-generated solid
waste is disposed of at the privately-owned PVT Nanakuli Construction and Demolition Material Landfill on Lualualei Naval Station Road. This facility manages over 20 percent of Oahu’s waste stream. At Waianae High School, a private company under contract to the State regularly picks up and disposes of solid waste generated by this school.

Construction of the new classroom building will generate some solid waste, which is typical of construction-related activities. The volume of solid waste generated is expected to be minor due to the limited area that will be developed. Construction-related solid waste generated will be a short-term impact, and consist primarily of vegetation, rocks, and other debris created from clearing, excavation, grading, and construction activities. The contractor will be required to properly dispose of all debris generated in conformance with agency regulations.

Waste generated from the activities conducted at the new building will be disposed of in the same manner other waste generated from the school is processed. There should be minimal or minor increases to the current amount of solid waste generated from this school with this project since there would not be an increase in students directly caused by this improvement. Consequently, this project should have minimal impact on solid waste facilities.

5.5 TRANSPORTATION FACILITIES

Existing Traffic Conditions

Farrington Highway in the area of Waianae High School is a 4-lane undivided suburban highway under the jurisdiction of the State Department of Transportation (DOT). This is the only highway in the area linking the Waianae District to Ewa and Honolulu beyond. Consequently, this coastal highway serves as the only major roadway facility providing vehicular access to residential subdivisions and commercial areas within the Waianae District.

Farrington Highway is signalized at its intersection with the Waianae High School driveway entrance into their main parking lot. A left-turn storage lane is provided for westbound vehicles turning into the school’s parking lot. This school’s main parking lot has two driveways connecting with Farrington Highway with vehicles entering at the signalized intersection and exiting at the second driveway located further east of the entrance. In the vicinity of Waianae High School, the posted speed limit is 35 miles per hour.

Traffic count data taken by the State DOT at Farrington Highway west of Waianae High School between Makaha Valley Road and Maiuu Road (Station No. C-15-G) in the year 2000 was reviewed. Based upon this data, Farrington Highway had a total of 17,953 cars traveling on this highway (both directions) during a 24-hour period. The weekday morning peak hour occurs
between 7:00 and 8:00 a.m. (995 total cars) while the afternoon peak hour occurs between 4:45 and 5:45 p.m. (1,307).

During peak commuter periods such as weekday afternoons, traffic along Farrington Highway can become congested primarily between Waianae Town Center and Nanakuli. Vehicular traffic occurring within the immediate vicinity of the Waianae High School campus is generally associated with school related traffic and area residents since commercial areas are located further east.

**Probable Traffic Impacts**

Short-term and temporary impacts to traffic along Farrington Highway may occur as a result of the movement of slow-moving heavy construction vehicles and equipment. Because the project site is within the Waianae High School campus, construction vehicles and heavy equipment will not need to make regular trips along Farrington Highway since they can be based on the campus property. Additional traffic would occur from construction workers traveling to and from the job site. However, this construction crew traffic is not expected to be significant for this project, and would be short-term until work is completed.

A traffic control plan is not anticipated to be required since the project's construction would not close any lanes of Farrington Highway. No off-duty police are also expected to be required for traffic control. Provisions for pedestrian traffic along this highway should also not be required since the project site is within the existing high school campus. However, within the school campus, provisions will be considered for the safe passage of students around the project site during construction activities.

Construction of the proposed classroom building is not expected to create new students enrolling and attending Waianae High School since this project is intended to serve students that are enrolled there. The project would simply provide permanent and improved classroom facilities for existing educational programs and students. The only exception would be the addition of the new food service educational program. However, this program would serve students already enrolled at the campus providing them with another source of educational and technical training. Similarly, this project should have minimal affect on the number of faculty working at the school since such staffing is based upon student enrollments and educational services being provided instead of available facilities.

Without the project, the vehicular traffic entering and exiting the school campus would be the same as it is currently or vary slightly over the years based upon student enrollments.
Student enrollments at this school have decreased from 2,150 students in 1999 to 1,921 students in 2003-04 school year. Enrollment projections from the State Department of Education through the year 2006 show enrollments generally remaining about the same varying from a low of 1,895 to high of 2,015 students. Thus, vehicular traffic from students should remain about the same or slightly lower than in 1999 due to lower enrollment, and traffic from faculty there should similarly remain about the same since there enrollments would stay pretty level.

With the project, there should similarly be minimal change to future without project vehicular traffic entering and exiting the school campus. Such traffic volumes will be based upon student enrollments which would not significantly change with this new project. Thus, the project would accommodate those students already enrolled or projected to enroll at Waianae High School.

Therefore, the project is not expected to have a significant impact on the operations of the signalized intersection of Farrington Highway with the campus driveway. Furthermore, the project is not expected to have a significant impact on vehicular traffic along Farrington Highway in the vicinity of the school campus. No additional improvements to Farrington Highway, the signalized driveway intersection, or other campus driveway intersections should be necessary.
CHAPTER 6
PUBLIC FACILITIES AND UTILITIES

This chapter discusses the project's probable impact on public facilities and utilities serving the project site and surrounding area. Due to the nature of improvements proposed, impacts would be primarily associated with construction-related activities, although positive long-term impacts to educational facilities are also anticipated.

6.1 ELECTRICAL AND COMMUNICATION FACILITIES

Electrical services are provided to the Waianae High School campus via Hawaiian Electric Company's (HECO) distribution lines. The Waianae High School campus is served by a HECO line routed overhead along Farrington Highway.

Telecommunication and cable television services are provided to the project site area by Verizon Hawaii and Oceanic Cable, respectively, via overhead lines. Appropriate coordination with these utility companies would be conducted during the design and construction of this project to minimize disruptions to their services or activities occurring.

The new classroom building project will generate an increased demand for electrical and telecommunication services since new air conditioned classroom facilities will be provided. However, such increases are not expected to have a significant impact on HECO's distribution facilities or power generation facilities. Design plans will be appropriately coordinated with HECO for their review to secure necessary improvements. Similarly, telecommunication improvements needed for the new building will be appropriately coordinated with providers.

6.2 EDUCATIONAL FACILITIES

The Waianae District currently contains 10 public schools operated under the State Department of Education (DOE). There are seven (7) elementary schools, one (1) intermediate, one (1) combined intermediate and high school, and one (1) high school.

Within close proximity of Waianae High School is Kamaile Elementary School, located 0.2 miles northeast of Waianae High School on Ala Akau Street. Waianae Intermediate School is located approximately 0.5 miles southeast of Waianae High School on the mauka (east) side of Farrington Highway.
Several years ago, Waianae High School had a planned design capacity for 1,950 students (DPP, 1999). At the beginning of the 2000-2001 school year, student enrollment reached 1,988 or approximately two percent more than the school’s planned design capacity (DOE, 2001). According to the school’s Hawaii School Accountability Report for 2001, a total of 107 permanent classrooms were available. Based on student enrollments and standards, Waianae High School needed 14 additional classrooms which were supplemented with portables.

Presently, the State DOE has a planned design capacity of 2,450 students for Waianae High School. A total of 129 classrooms are available of which only 107 are permanent facilities. The additional 22 classrooms consist of portables. The school’s Hawaii School Accountability Report for 2002 indicated 107 permanent classrooms were available, but were short 17 classrooms (DOE, 2002).

The primary impact of the project would be to improve the Waianae High School campus facilities for the direct benefit of students and faculty. The new building will provide an additional eight (8) permanent classroom facilities for the school. This would also allow the school to start their new food service educational program since necessary space and lab facilities will be provided. Furthermore, permanent additional administrative office space will be provided for faculty, Special Education, and student services. As discussed in Chapter 2, an office trailer was recently added to the campus to address the shortage of such administrative facilities.

Other impacts to the school would consist of short-term construction-related activities. Noise and dust emissions would likely constitute the primary impacts associated with construction activities. In order to mitigate these impacts to the greatest degree possible, the contractor would be required to comply with applicable regulations and permit conditions governing construction activities to minimize disruptions to on-going classes, and nearby residential areas. Best management practices would also be implemented to minimize dust, erosion, and other nuisances from short-term construction activities.

### 6.3 POLICE PROTECTION

The project proposed for the Waianae High School campus is expected to have minimal impacts on the operations of the police department. However, such impacts are not expected to affect their ability to provide adequate protection services to the surrounding Waianae community and the larger Waianae District.
The Honolulu Police Department provides services to the Waianae District from their Waianae Police Substation which serves as a base of operations for police personnel patrolling this coast. This substation is located approximately 1 mile southeast of Waianae High School on the makai (west) side of Farrington Highway, adjacent to Pokai Bay Beach Park. Additional police protection is available from the District 8 Headquarters Station located in Kapolei.

Police staff may be hired to assist in directing traffic during construction activities. However, this will be minimized as the majority of the construction activities will occur within the Waianae High School campus, and will not involve closure of any traffic lanes fronting the high school.

There is also the possibility of some complaints to the Police Department from residents over dust and noise from construction activities. As previously noted, however, the contractor would be required to comply with applicable regulations and permit conditions governing construction activities to minimize disruptions to nearby residents. Best management practices would also be implemented to ensure that dust, erosion, and other nuisances from short-term construction activities are kept to a minimum.

Therefore, this project should not have a significant impact on the police department’s ability to provide protective services in the project area either during construction or upon completion of the new classroom building. As the project is not expected to cause an increase in enrollment at the Waianae High School campus upon its completion, it should not generate any additional need for police protection services.

This building will also be designed to secure costly equipment to minimize and deter theft. A letter from the Honolulu Police Department, dated November 26, 2003 and included in Appendix B, recommended such measures be taken to secure equipment. Given appropriate design measures are incorporated, they determined that this project should have minimal impact on their services.

6.4 FIRE PROTECTION

The Honolulu Fire Department has two fire stations in the Waianae District. One station is located in Waianae and the other in Nanakuli. The Waianae Fire Station is equipped with a 5-person engine, a 5-person quint (combination pumper/ladder truck), and a 1-person tanker. The Waianae Station is located approximately 0.75 mile from the Waianae High School campus, on the makai (east) side of Farrington Highway. Back-up service is provided by fire stations located in Kapolei, Makakilo, Ewa, and Waipahu.
This project is not expected to have a significant impact on the Fire Department’s ability to provide fire protection services to the high school and Waianae community. The building will be designed to meet fire and building code requirements. This will include providing necessary hydrants and meeting fire flow requirements for water system improvements.

In addition, a new fire lane access road will be provided around the building to create access to school facilities along that shoreline area. This new fire lane with turnaround area will meet City design standards. A fire hydrant will also be provided along this new fire access lane. Appropriate design plans will also be coordinated with the Fire Department for their review during the project’s design phase. Consequently, this project should not have a significant impact on the department’s fire protection services.

6.5 RECREATIONAL FACILITIES

Recreational facilities located in the vicinity of the Waianae High School Campus include Mauna Lahihi Beach Park, Waianae Regional Park, Waianae District Park, and Pokai Bay Beach Park.

Development of the new classroom building is not expected to have a significant impact on these recreational facilities since improvements would be constructed within the school’s campus. Construction activities associated with this project are also not expected to result in any significant impacts on these facilities or severely disrupt existing recreational activities occurring thereon.

Construction activities would not involve the use of these recreational facilities or impede existing activities conducted there. Design of the project would include developing appropriate erosion control plans and best management practices to minimize runoff from entering surrounding ocean waters. Such plans developed would be reviewed and approved by appropriate agencies. Thus, implementation of such plans would provide sufficient measures to minimize impacts on these recreational facilities. A letter, dated December 1, 2003 and included in Appendix B, confirms the City Department of Parks and Recreation believes this project will not affect any of their facilities or programs.

6.6 MEDICAL FACILITIES

Medical facilities located within the Waianae District include Kaiser Permanente in Maili and the Waianae Coast Comprehensive Health Center (WCCHC). Emergency service for Kaiser Permanente is provided from its Moanalua Center with ambulance service provided by the Leeward Clinic in Waipahu.
Emergency ambulance service also is provided by the Waianae Fire Station, which transports patients to Saint Francis-West in Waipahu or the WCCHC. For severe cases, a helicopter is dispatched to the Waianae Coast and the patients are taken to the Queens Medical Center.

None of these facilities are within the immediate vicinity of the project site. The closest being the WCCHC is located approximately 4.0 miles southeast of Waianae High School. Consequently, short-term construction activities associated with the project should have no impact on medical facilities or the activities occurring there. Upon completion of the new classroom building, it should similarly not impact these medical facilities or services provided there.
CHAPTER 7
CONFORMANCE WITH PLANS AND POLICIES

This chapter discusses the project’s conformance with the State Land Use District regulations, State Environmental Policy (Chapter 344, HRS), and the regulations, policies, and goals set forth under the City’s General Plan, the Waianae Sustainable Communities Plan, and Zoning district regulations prescribed under the Land Use Ordinance. It also includes discussion of the project’s consistency with the Special Management Area objectives and policies as prescribed under Chapter 205A, HRS.

7.1 STATE LAND USE DISTRICT

The State Land Use District Boundary Map for the Waianae region (O-2, Waianae), indicated that the new classroom building project site along with the Waianae High School campus are classified as “Urban” District. Chapter 1 included a figure showing the project site in relation to the established State land use districts for this area.

Permitted uses or activities within the Urban District are provided by ordinances or regulations of the county within which the Urban District is situated. Thus, Urban District lands on the Island of Oahu are regulated by the ordinances and regulations of the City and County of Honolulu.

7.2 CHAPTER 344, STATE ENVIRONMENTAL POLICY

This section discusses the project’s conformance and consistency with the pertinent goals, policies, and guidelines described under Chapter 344, HRS, State Environmental Policy.

Environmental Policy

1. Conserve the natural resources, so that land, water, mineral, visual, air and other natural resources are protected by controlling pollution, by preserving or augmenting natural resources, and by safeguarding the State’s unique natural environmental characteristics in a manner which will foster and promote the general welfare, create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of the people of Hawaii.
The project would be consistent with this environmental policy because the proposed improvements would utilize existing vacant land and open space area within the Waianae High School campus. This project would not have an adverse impact on natural resources or the environment as discussed in the various sections of this document.

The project site is already relatively level thus minimizing the need for extensive grading. Design of this project will protect and safeguard the unique natural environment and characteristics associated with this project area. Classroom facilities and structures would meet all applicable Federal, State and City building requirements and regulations to protect the environment. Best management practices would be implemented during construction to minimize runoff and other short-term impacts such as fugitive dust and noise. Therefore, this project will conserve natural resources such as open space lands, and is not anticipated to impact the shoreline and the ocean waters beyond.

2. **Enhance the quality of life by:**

   A. Setting population limits so that the interaction between the natural and manmade environments and the population is mutually beneficial.

   B. Creating opportunities for the residents of Hawaii to improve their quality of life through diverse economic activities which are stable and in balance with the physical and social environments.

   C. Establishing communities which provide a sense of identity, wise use of land, efficient transportation, and aesthetic and social satisfaction in harmony with the natural environment which is uniquely Hawaiian.

   D. Establishing a commitment on the part of each person to protect and enhance Hawaii’s environment and reduce the drain on nonrenewable resources.

This project would be consistent with these environmental policies regarding the quality of life. The new classroom building would not affect the existing or future resident population in Waianae or the establishment of new communities. The proposed building does not involve any new homes or visitor units, and short-term construction jobs are expected to be filled by Hawaii residents not resulting in any immigration. Construction of this project would create additional short-term construction related jobs for island residents involved in the industry and generate indirect benefits to other businesses as discussed in Chapter 4. This building will
greatly improve facilities at the school supporting the school’s educational programs and benefiting both the faculty and students. Improving such educational opportunities for students will directly benefit the Waianae community and the quality of life by supporting their pursuit of future jobs and career opportunities.

Guidelines

1. Population
   A. Recognize population impact as a major factor in environmental degradation and adopt guidelines to alleviate this impact and minimize future degradation.
   B. Recognize optimum population levels for counties and districts within the State, keeping in mind that these will change with technology and circumstance, and adopt guidelines to limit population to the levels determined.

   The project would not affect the existing or future resident population in Waianae or cause the establishment of new communities. The proposed improvements do not involve any new homes or visitor units, and short-term construction jobs are expected to be filled by Hawaii residents not resulting in any in-migration.

2. Land, water, mineral, visual, air, and other natural resources
   A. Encourage the management practices which conserve and protect watersheds and water sources, forest, and open space areas.
   B. Establish and maintain natural area preserves, wildlife preserves, forest preserves, marine preserves, and unique ecological preserves.

   This project would be consistent with these guidelines because the improvements would not impact those natural resources identified such as watersheds, forest preserves, wildlife preserves, or unique ecological preserves. The project would not impact an area that is valuable as important open space area since the site only involves a vacant area next to the existing Building I and the use of a portion of the existing paved parking lot. Appropriate measures would be incorporated into the project’s design to minimize erosion and address appropriate drainage requirements.

3. Flora and fauna
   A. Protect endangered species of indigenous plants and animals and introduce new plants or animals only upon assurance of negligible ecological hazard.
   B. Foster the planting of native as well as other trees, shrubs, and flowering plants compatible to the enhancement of our environment.
As discussed in this document, this project would not impact endangered plants or animals since none are known to be present on the project site or immediate surrounding area. This project would also not introduce new plants or animals to the area which may contribute to an ecological hazard on flora or fauna in the region.

4. Parks, recreation, and open space

A. Establish, preserve and maintain scenic, historic, cultural, park and recreation areas including the shorelines, for public recreational, educational, and scientific uses.

B. Protect the shorelines of the State from encroachment of manmade improvements, structures, and activities.

The project is not expected to impact significant historic properties or cultural resources and practices as discussed in Chapter 3 since there are no known sites present or traditional cultural practices affected by the project. The project site is located within the Waianae High School campus, and the new building will have a positive impact on educational facilities present there. The shoreline will be protected from encroachment of manmade improvements, structures and activities associated with this project which are sufficiently set back and will not negatively impact shoreline resources or access.

A new fire access lane being provided will slightly encroach into the 40-foot shoreline setback area. However, this fire access lane with fire hydrant will create needed access to this area of the campus for the Fire Department greatly improving fire protection of the campus facilities. Proposed building improvements would not adversely impact any recreational area or scenic visual resources along the shoreline since none are present or occur within the school’s campus and project site.

5. Citizen participation

A. Provide for expanding citizen participation in the decision making process so it continually embraces more citizens and more issues.

The environmental review process allows for public and government agency input to express concerns and comments associated with the project. Such opportunities include pre-assessment consultation efforts and the availability of the Draft EA for public review. Thus, the public consultation process incorporated within this environmental review process provides the general public and decision-makers with a diverse array of information to consider in evaluating this project.
7.3 CITY AND COUNTY OF HONOLULU GENERAL PLAN

This section discusses the project's conformance with pertinent objectives and policies from the City and County of Honolulu's General Plan.

Population

1. Objectives

A. To control the growth of Oahu's resident and visitor populations in order to avoid social, economic, and environmental disruptions.

B. To plan for future population growth.

C. To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.

2. Policies

A. Seek to maintain a desirable pace of physical development through City and County regulations.

B. Allocate efficiently the money and resources of the City and County in order to meet the needs of Oahu's anticipated future population.

C. Manage physical growth and development in the urban-fringe and rural areas so that

1) An undesirable spreading of development is prevented; and

2) Their population densities are consistent with the character of development and environmental qualities desired for such areas.

D. Seek a year 2010 distribution of residential population, with Waianae having 3.8% to 4.2% of the islandwide population.

The project would be consistent with these objectives and policies since it would not increase the resident population in the Waianae district or affect the islandwide resident population distribution percentages. Development of the new building will simply provide better permanent classroom facilities for students enrolled at the high school, and facilitate and support the school's educational programs and activities. Funds expended for this project reflects an efficient effort to support the needs of Waianae's students. This project would not promote an undesirable spreading of development in Waianae because improvements are limited to open areas within the school's campus, and this will not directly contribute to additional undesirable development on surrounding areas.
Economic Activity

1. Objectives
   A. To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.
   B. To prevent the occurrence of large scale unemployment.

2. Policies
   A. Encourage the development in appropriate locations on Oahu of trade, communications, and other industries of a nonpolluting nature.
   B. Encourage the training and employment of present residents for currently available and future jobs.

The project would be consistent with these policies and objectives, as it would support students with their educational programs, and allow for them to participate in a new food service educational program planned by the school. By facilitating and supporting the school's educational programs and activities, this project would provide students with better education, training, and skills for pursuing higher education or entering the State's job market. This project thus promotes employment opportunities enabling people to attain a decent standard of living and prevent the occurrence of large scale unemployment.

Natural Environment

1. Objectives
   A. To protect and preserve the natural environment.
   B. To preserve and enhance the natural monuments and scenic views of Oahu for the benefit of both residents and visitors.

2. Policies
   A. Protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.
   B. Require development projects to give due consideration to natural features such as slope, flood and erosion hazards, water-recharge areas, distinctive land forms, and existing vegetation.

This project is not an incompatible development with the surrounding natural environment since it only involves improving classroom facilities within the school's campus. The building will be appropriately designed to meet State DOE and DARGS
building requirements for the school. Appropriate consideration has been given to the natural features associated with the building site which is already developed. The site is relatively flat, already disturbed and absent of distinctive land forms, does not involve a water recharge area, and absent of significant or important vegetation. Much of the school campus is already located within the flood area, thus, this building will similarly be situated as such. However, the building will be designed to comply with all pertinent flood requirements.

C. Require sufficient setbacks of improvements in unstable shoreline areas to avoid the future need for protective structures.
D. Design surface drainage and flood-control systems in a manner which will help preserve their natural settings.

The new classroom building will be set back away from the shoreline a reasonable distance given the available space at the project site. Other existing facilities are already situated as close to the shoreline as the new building will be. Consequently, no protective structures will be required for this project to protect the building. Minimal improvements are needed to address surface drainage at the site. A small portion of the new fire access lane required will slightly encroach within the 40-foot shoreline setback area and require some grading of the existing dirt berm present. However, this change would not cause significant changes to surface drainage in the area and existing drainage patterns will be maintained.

E. Protect the natural environment from damaging levels of air, water, and noise pollution.
F. Protect plants, birds, and other animals that are unique to the State of Hawaii and the Island of Oahu.
G. Protect nature trees on public and private lands and encourage their integration into new developments.
H. Protect the Island’s well-known resources.
I. Protect Oahu’s scenic views, especially those seen from highly developed and heavily traveled areas.
J. Locate roads, highways, and other public facilities and utilities in areas where they will least obstruct important views of the mountains and the sea.

As discussed in the various sections of this document, the project is not expected to have a significant impact on the natural environment or plants, birds, or
other animals unique to the island and State. No mature trees would be affected by this project and well-known resources will not be affected. The main effects associated with this project would be construction related. However, best management practices and other design measures will be incorporated to mitigate the short-term nuisances caused by construction activities. Scenic views would not be adversely impacted by the project since there are no scenic resources or landmarks on the project site nor are there any important viewing locations along the highway affected by this project as discussed in Chapter 3.

Energy

1. Objectives
   A. To fully utilize proven alternative sources of energy.

2. Policies
   A. Encourage the use of commercially available solar energy systems in public facilities, institutions, residences, and business developments.

   The project would consider the use of alternative sources of energy where applicable.

Physical Development and Urban Design

1. Objectives
   A. To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.
   B. To maintain those development characteristics in the urban-fringe and rural areas which make them desirable places to live.
   C. To create and maintain attractive, meaningful, and stimulating environments throughout Oahu.
   D. To promote and enhance the social and physical character of Oahu’s older towns and neighborhoods.

2. Policies
   A. Plan for the construction of new public facilities and utilities in the various parts of the Island according to the following order of priority: first, in the primary urban center; second, in the secondary urban center at Kapolei; and third, in the urban-fringe and rural areas.
B. Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities.

C. Phase the construction of new developments so that they do not require more regional supporting services than are available.

D. Require new developments to provide or pay the cost of all essential community services...that are intended to directly serve the development.

E. Locate community facilities on sites that will be convenient to the people they are intended to serve.

The project would comply with these objectives and policies because this new classroom building project has been appropriately planned for and programmed by the State DAGS as part of their state-wide capital improvement program. The timing of this development is consistent with the availability of infrastructure facilities as discussed in this document. This classroom building will not require more regional supporting services than present in Waianae, and will not require additional community services. The project will improve facilities and support educational programs provided at the high school.

F. Exclude from residential areas, uses which are major sources of noise and air pollution.

G. Integrate the City and County’s urban-design plan into all levels of physical planning and developmental controls.

H. Require the consideration of urban-design principles in all development projects.

I. Require new developments in stable, established communities and rural areas to be compatible with the existing communities and areas.

The project would not be a major source of noise and air pollution, and will be compatible with the existing community and surrounding area since it is an improvement to the existing high school located within the Waianae district. Urban design plans and principles would be considered and implemented to provide a classroom building of high aesthetic and functional standards that complements the school campus and Waianae community. However, the building’s design would first need to comply with State DAGS and DOE design criteria and facility requirements.
J. Preserve and maintain beneficial open space in urbanized areas.

K. Design public structures to meet high aesthetic and functional standards and to complement the physical character of the communities they will serve.

L. Encourage new construction to complement the ethnic qualities of the older communities of Oahu.

The project would preserve and maintain beneficial open space in urbanized areas since the shoreline area will be kept open. The classroom building will be efficiently utilizing available space on the campus which includes a portion of their existing parking lot. The building’s design will meet high aesthetic and functional standards in compliance with State DAPS and DOE facility standards and requirements. Finally, this building will complement the character of other existing facilities at Waianae High School.

Public Safety

1. Objectives
   A. To protect the people of Oahu and their property against natural disasters and other emergencies, traffic, and fire hazards, and unsafe conditions.

2. Policies
   A. Require all developments in areas subject to floods and tsunamis to be located and constructed in a manner that will not create any health or safety hazard.
   B. Design safe and secure public buildings.
   C. Provide adequate staff to supervise activities at public facilities.

The project would be consistent with these objectives and policies because it would not interfere with the protection of the general public and their property against natural disasters and unsafe conditions. Although the classroom building will be sited within a flood zone, it will be appropriately designed to meet all flood design requirements. Much of the school campus is already located within a flood zone. The building’s design will incorporate necessary features to secure classrooms and equipment. Adequate staff would be present to supervise activities at this building since classrooms will be occupied by teachers, and the school has security staff which patrols the campus.
Health and Education

1. Objectives
   A. To protect the health of the people of Oahu.
   B. To provide a wide range of educational opportunities for the people of Oahu.

2. Policies
   A. Coordinate City and County health codes and other regulations with State and Federal health codes to facilitate the enforcement of air-, water-, and noise-pollution controls.
   B. Support education programs that encourage the development of employable skills.
   C. Encourage the construction of school facilities that are designed for flexibility and high levels of use.
   D. Encourage continuing improvement in the quality of higher education in Hawaii.
   E. Encourage the development of diverse opportunities in higher education.

The project would be designed to meet all Federal, State, and City health codes and regulations. Construction activities would also meet applicable regulations to minimize pollution which includes implementing best management practices such as erosion control plans. The new classroom building will support educational programs for students learning employable skills and assist in preparing them to pursue higher education opportunities. The building design was developed in consultation with Waianae High School to ensure that the facilities are designed for flexibility and a high level of use by the school faculty.

Culture and Recreation

1. Objectives
   A. To protect Oahu’s cultural, historic, architectural, and archaeological resources.
   B. To foster the visual and performing arts.

2. Policies
   A. Encourage the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.
B. Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.

C. Cooperate with the State and Federal governments in developing and implementing a comprehensive preservation program for social, cultural, historic, architectural, and archaeological resources.

As discussed in Chapter 3, the project is not expected to impact cultural, historic, architectural, or archaeological resources. Coordination with SHPD has been and would continue to be conducted to address the project’s effects on historic sites or cultural resources.

7.4 WAIANAE SUSTAINABLE COMMUNITIES PLAN

This section discusses the project’s conformance with goals, policies, and guidelines set out by the Waianae Sustainable Communities Plan.

General Policies

1. Large-Scale Open Spaces

A. The preservation of open space and scenic beauty should be a high priority consideration for any and all public programs and projects that may affect the coastal lands, valleys, and mountains of the Waianae District.

B. The environmental impact analysis for any proposed project, whether public or private, that may be planned for coastal, valley, or mountain sites within the Waianae District should include a detailed analysis of the project’s potential impact on open space and scenic beauty.

C. Future urban and suburban development in the Waianae District should be limited to the Rural Community areas, and should not be allowed to intrude into the Coastal area, the Agricultural area, or the Preservation area.

The new classroom building would be located with the existing campus of Waianae High School, thus it would not intrude into new or undeveloped Agricultural or Preservation areas. Because the high school campus is already situated along the shoreline, this development cannot avoid being located within a coastal area. However, appropriate design measures will be implemented to allow the new building to be sensitive and compatible with the shoreline environment. The project would not adversely impact areas of scenic beauty and will not impact open space since the
building will be constructed within the school’s campus. Chapter 3 of this document discusses the project’s effect on open space and scenic beauty in more detail.

2. Coastal Lands

A. There should be no new residential, commercial, industrial, resort or other urban or suburban type of development makai of Farrington Highway, with the exception of new development or redevelopment of low-rise commercial and public buildings associated with the development of Waianae Country Town.

The Waianae High School new classroom building is an exception to this guideline, as the project would be considered a newly developed public building. Furthermore, this new classroom building will be developed within the school’s existing campus site.

3. Historic and Cultural Sites

A. Careful restoration of important sites should be undertaken by qualified professionals.

B. Urban or agricultural development projects should not be permitted to degrade or destroy important historical or cultural sites.

C. Plans and programs are needed for the protection of important historical and cultural sites found on City-owned land within the District...programs should include provisions for community access to important sites for the observance of cultural practices, and involvement of members of the community in the protection and preservation program.

D. For lands owned by Federal or State agencies, or owned by private parties, the appropriate public agencies should develop pro-active and cooperative efforts to preserve and protect these important sites and provide for community access.

The project is not expected to impact significant historic properties or cultural resources and practices as discussed in Chapter 3 of this document. Thus, restoration of sites would not apply since there are no known to be affected. However, in the event subsurface historic sites such as cultural layers or human burial are encountered during construction, all work would stop and the SHPD would be notified.
4. Planning Guidelines for Civic, Public Safety and Educational Facilities

A. Public buildings, whether designed and constructed by federal, state, or city agencies or by other quasi-public entities, should be designed to be both functionally efficient and aesthetically pleasing.

B. Public buildings should consider the use of building forms and materials that reflect Hawaii’s diverse cultural and architectural heritage; the predominantly residential scale of the built environment of the Waianae District; the hot, dry climate of the coastal plain zone; and related open areas.

The Waianae High School new classroom building will be designed to be functionally efficient and aesthetically pleasing in compliance with State DAGS and DOE design criteria and facility requirements. The building design concept was developed in consultation with Waianae High School to ensure that the facilities are designed for flexibility and a high level of use by the school faculty. The use of appropriate building forms and materials reflecting Hawaii’s heritage will be considered during the project’s design phase.

7.5 City and County of Honolulu Zoning District

The project site and surrounding land is presently zoned “P-2, General Preservation” by the City and County of Honolulu. An adjacent site is zoned A-1 (Apartment Low-Density), R-5 (Residential), Country, and Planned Development-Housing zoned lands are situated along Farrington Highway across from Waianae High School. Under the Land Use Ordinance, Chapter 21, Revised Ordinances of Honolulu (ROH), the new classroom building is permitted use in the P-2, General Preservation zoning district as a public use and structure (§21-3.40 and §21-10.1, ROH).

The project would generally be consistent with the development standards for this P-2, General Preservation zoning district. Waivers, if necessary, would be applied for from the City. A discussion of the project’s consistency with these development standards is provided below.

1. Front yards of 30 feet, and side and rear yards of 15 feet are required under this zoning district. The new classroom building will be consistent with these yard setback requirements.

2. The maximum height limit for this zoning district is 15 feet. However, heights up to 25 feet are permitted if height setbacks are provided. The building will be located approximately 60 feet inland from the school’s rear property line along
the shoreline. Given the building's location being set back some distance away from this property line, the 25-foot height limit would apply to this project. The design concept for the new classroom building's single-story structure is planned to be less than 25 feet in height.

3. The maximum developable area permitted under the P-2, General Preservation zoning district is 5 percent of the zoning lot. The Waianae High School property consists of approximately 40.278 acres. The proposed classroom building complex will add another approximately 13,370 square feet of floor area to the existing campus. The existing campus facility already exceeds this 5 percent maximum developable area standard, and waivers have been obtained for other improvements. As a result, this project will similarly require a Waiver from this development standard for the new classroom building. A Waiver Request from the City will be applied for at the pertinent time.

4. Based upon off-street parking requirements for "Schools" (high school) listed under Table 21-6.1 of the Land Use Ordinance, one stall for each 10 students of design capacity plus one stall per 400 square feet of office space is required. Accessible parking requirements based upon ADAAG is 1 accessible stall for each 25 stalls provided.

Based upon previous land use approvals issued for the Waianae High School campus property, a total of 209 parking stalls were approved to be provided for the school. This total was determined based upon review of these prior land use approvals, the land use applications filed, construction plans submitted with applications, and Waivers issued by the City. Presently, the high school has 229 existing paved and striped parking stalls based upon existing plans and field observation of the school campus. However, it should be noted that parking at the school's back area by the swimming pool and football field gate was somewhat restricted because that area was under construction at the time. The school has their own parking system and stall assignments given to both faculty and students. A total of 223 stalls are presently assigned which is less than the 229 stalls existing.

Using the LUO's off-street parking requirements, a total of 39 additional parking stalls would be required for the new classroom building project. With the proposed project and parking modifications planned, there would be no net
change to the existing number of parking stalls. The new classroom building will eliminate 30 existing stalls from the Building I parking lot, however, 8 stalls are being provided in a new area of this lot and the remaining 22 stalls are being created in another location of the school campus. However, the 39 additional parking stalls required from the new classroom building project cannot be created at this parking lot or near the new building. Consequently, a Waiver from this parking requirement would be applied for from the City at the appropriate time.

7.6 SPECIAL MANAGEMENT AREA

The entire Waianae High School property is located within the City and County of Honolulu’s Special Management Area. Therefore, the construction of the new classroom building will be subject to the requirements of Chapter 25, ROH. As discussed below, the proposed project would be consistent with the following objectives, policies and guidelines of the Special Management Area, set forth in Chapter 205A-2, Hawaii Revised Statutes.

A. Objectives:

1. Provide coastal recreational opportunities accessible to the public.
2. Protect, preserve, and where desirable, restore those natural and man-made historic and pre-historic resources in the coastal zone management area that are significant in Hawaiian and American history and culture.
3. Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.
4. Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.
5. Provide public or private facilities and improvements important to the State’s economy in suitable locations.
6. Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion, and subsidence.
7. Improve the development review process, communication, and public participation in the management of coastal resources and hazards.
8. Protect beaches for public use and recreation.

A discussion of this project’s conformance and consistency with the various applicable policies developed for each objective is provided. In summary, the project
would be consistent with applicable policies, therefore, this project would be consistent with these Special Management Area objectives.

B. Policies

1. Recreational resources:

   b. Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by;

      i. Protecting coastal resources uniquely suited for recreation activities that cannot be provided in other areas;

      iii. Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;

      v. Ensuring public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value consistent with public safety standards and conservation of natural resources;

      vi. Adopting water quality standards and regulating point and non-point sources of pollution to protect, and where feasible, restore the recreational value of coastal waters.

   The project will not significantly impact coastal resources having recreational value in a negative manner as documented in this document. The building site is situated more than 60 feet away from the shoreline fronting the high school, and does not involve new development of existing land areas near coastal resources.

   The new building would be located on already disturbed open space area next to existing Building I and utilize a portion of the parking lot. Therefore, it would not eliminate public access to the shoreline fronting the high school property, and would not prevent or adversely affect current public recreational activities occurring along this shoreline.

   Construction of the project will not involve extensive land disturbance activities since grading activities should be minimal due to the already flat project site. The building will actually have to be sited on fill material to elevate it a few feet. Only minor trench work would occur for the extension of utilities to service this new building. Construction activities will be short-term, and appropriate best management practices developed to address surface water runoff. Construction plans would be
coordinated with pertinent State and City agencies for review and approval. As a result, construction is not expected to generate significant amounts of pollutants which may affect the water quality of the surrounding shoreline area.

2. **Historic Resources:**
   
   a. **Identify and analyze significant archaeological resources;**

   c. **Support state goals for protection, restoration, interpretation, and display of historic resources.**

   As discussed in this Environmental Assessment, the project will not have an adverse impact on historic properties or significant cultural resources since there are none known to be present on the project site and immediate area. Furthermore, the project site has been previously disturbed from construction of the parking lot and Building I. Existing utilities are also routed through the site serving other existing school facilities. Appropriate coordination has been and will be conducted with the State Historic Preservation Division to address the potential impacts on historic properties and implement appropriate mitigative measures if necessary.

   Further, there are no known significant cultural resources on the project site or immediate areas, and the project will not restrict access to adjacent areas that may be used for traditional native Hawaiian practices or cultural activities. Therefore, the project would be consistent with these policies addressing historic resources.

3. **Scenic and Open Space Resources:**
   
   a. **Identify valued scenic resources in the coastal zone management area;**

   b. **Ensure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;**

   c. **Preserve, maintain, and, where desirable, improve and restore shoreline open space and scenic resources.**

   d. **Encourage those developments which are not coastal dependent to locate in inland areas.**

   There are no significant visual resources situated within the school campus that would be affected by the project nor are there any important coastal views from
Farrington Highway along the school property. This project would thus not alter any significant natural landforms or obstruct existing public views of the shoreline and scenic resources.

The new building will be situated among existing buildings of the Waianae High School campus. Several of these buildings such as Building I will be taller than the new single-story building. The design of the building will also take into account the design of existing buildings of the high school. Open space along the shoreline will be preserved. Existing viewplanes to and from the shoreline will not be altered due to the project site's location. Although the project is not coastal dependent, it needs to be located within the high school campus which is located along the coastline. Thus, the project would not impact the visual character of the development or affect open space and scenic resources.

4. Coastal Ecosystems:

b. Preserve valuable coastal ecosystems, including reefs, of significant biological or economic importance;

c. Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs;

d. Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate State water quality standards.

The project would not adversely impact valuable coastal ecosystems since it would only be limited to construction of a new building on the relatively small site within the Waianae High School campus. It would not involve stream diversions, channelization, or other similar alterations to existing water uses or coastal ecosystems. During construction, disruption or degradation of coastal waters will be minimal or non-existent as contractors will be required to follow applicable rules and regulations governing erosion and runoff. Best management practices will be implemented by the contractor, and design plans will be submitted to State and City agencies for review and approval. Consequently, the proposed project will not impact water quality or marine ecosystems in the immediate vicinity.
5. Economic Uses:

The policies pertaining to Economic Uses are not applicable for this project since the building is not a coastal dependent development.

6. Coastal Hazards:

   b. Control development in areas subject to storm wave, tsunami, flood, erosion, hurricane, wind, subsidence, and point and non-point pollution hazards;

   c. Ensure that developments comply with requirements of the Federal Flood Insurance Program; and

   d. Prevent coastal flooding from inland projects.

The building site and other site improvements will affect land areas identified as coastal flooding areas, and would thus trigger requirements specified under the Federal Flood Insurance Program. The project site is located within the 100-year flood hazard area (Zone AE), but outside of the coastal flood hazard area (Zone VE). Construction of the proposed project will not result in any disruption to existing stream flows or activities within flood hazard areas. The project's design will comply with flood district requirements specified under the LUO.

7. Managing Development:

   a. Use, implement, and enforce existing law to the maximum extent possible in managing present and future coastal zone development;

   b. Facilitate timely processing of application for development permits and resolve overlapping or conflicting permit requirements; and

   c. Communicate the potential short- and long-term impacts of proposed significant coastal developments early in their life-cycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

The State DARGS, on behalf of the Department of Education, will comply with City regulations and management of their SMA by submitting an application with supporting justification for satisfying the City’s Special Management Area Use Permit at the appropriate time. This application will include information addressing the proposed project's potential impact on the environment, which should be minimal
and consist mainly of short-term construction related effects due to the nature of this project. This Environmental Assessment document provides more detailed discussion addressing the project's impact on the environment.

8. **Public Participation:**

   b. Disseminate information on coastal management issues by means of educational materials, published reports, staff contact, and public workshops for persons and organizations concerned with coastal-related issues, developments, and government activities.

The State DAGS, on behalf of the DOE, is complying with this policy through the publication and distribution of this Environmental Assessment document. The processing of this document allows for public participation to address comments and concerns associated with the project. The State DAGS will also comply with this policy through submittal of a Special Management Area Use Permit for the proposed project. This application would allow the City's Department of Planning and Permitting to review the project's consistency with coastal management policies.

9. **Beach Protection:**

   a. Locate new structures inland from the shoreline setback to conserve open space and to minimize loss of improvements due to erosion.

The project site for the new building is located inland from the shoreline, among existing buildings on the Waianae High School campus. This will conserve open space along the shoreline outside of the school's campus. The project site's location away from the shoreline will minimize the loss of these improvements being made due to shoreline erosion.

10. **Marine Resources:**

    a. Exercise an overall conservation ethic, and practice stewardship in the protection, use, and development of marine and coastal resources;

The proposed project promotes an overall conservation ethic since it will be located away from the shoreline and coastal resources to the extent possible. The project site is also located in close proximity to existing buildings and infrastructure serving the school campus. Further, the project will not involve the use or development of marine and coastal resources. Therefore, the project will not impact marine and coastal resources and would thus be consistent with these policies.
CHAPTER 8
AGENCY AND PUBLIC CONSULTATION

8.1 PRE-ASSESSMENT CONSULTATION (DRAFT EA)

Letters providing project information along with a preliminary site plan were sent to various consulted parties in November 2003 to solicit their initial comments and concerns associated with the project as part of the preparation of this Draft EA. A listing of agencies and organizations for which consultation letters were sent is provided below. Those providing written responses are identified with a "»" symbol. Copies of written comments received along with responses to them are included in Appendix B. Comments received have been addressed in the appropriate sections of this Draft EA.

Federal Agencies
» Department of Agriculture, Natural Resources Conservation Service
» Department of the Army, U.S. Army Engineer District, Honolulu
» Department of Interior, Fish and Wildlife Service, Pacific Islands Ecoregion
» Department of the Interior, Water Resources Division, U.S. Geological Survey
» Department of Transportation, Federal Highway Administration, Hawaii Division

State of Hawaii Agencies
» Department of Agriculture
» Department of Business, Economic Development and Tourism
» Department of Hawaiian Home Lands
» Department of Health
» Department of Land and Natural Resources
» Department of Land and Natural Resources, State Historic Preservation Division
» Department of Transportation
» Land Use Commission, Department of Business, Economic Development and Tourism
» Office of Hawaiian Affairs
» Office of Planning, Department of Business, Economic Development and Tourism

City and County of Honolulu Agencies
» Board of Water Supply
» Department of Community Services
Department of Design and Construction
Department of Environmental Services
Department of Facility Maintenance
Department of Parks and Recreation
Department of Planning & Permitting
Department of Transportation Services
Fire Department
Police Department

Non-Governmental Agencies

- The Honorable Colleen Hanabusa, Senator, 21st District
- The Honorable Emily Auwae, Representative, 44th District
- The Honorable Donavon M. Dela Cruz, Chairman, Honolulu City Council
- The Honorable Mike Gabbard, Councilman, Waianae District 1
- Mr. Glen M. Kila, Chairperson, Waianae Coast Neighborhood Board No. 24
- Hawaiian Electric Company
- Verizon Hawaii – Building Services

Waianae Neighborhood Board Presentation

A presentation on the proposed new classroom building project was made to the Waianae Neighborhood Board No. 24 on February 3, 2004 as part of consultation efforts. A summary of the results of this presentation is provided.

1. A short briefing on the purpose for the presentation and background of the project was made to the Board. Presentation boards were used to describe the project and proposed improvements. After this presentation, questions from the Board and the general public were taken.

2. A Board member commented that she appreciated seeing this project being implemented for the school, and it was overdue.

3. A member of the public inquired whether wooden or steel framed trusses would be used for buildings. He suggested that steel be used instead of wood because it would last longer. It was explained that steel trusses were not planned to be used at this time due to the corrosion potential from the salt air environment present. However, there may be economic differences associated with the two materials that will be considered during the design phase of this project.
4. A member of the public inquired how long the public review process would be for this project so that everyone would have an idea. It was explained that the Draft EA is planned to be published in March and would be provided to the Board and made available at the regional library for public review. The public would then have 30 days from the document's publication to review and provide comments.

5. A member of the public inquired whether local or outside workers would be used for this project's construction. It was responded that local contracting firms would likely be the ones bidding and working on this project.

8.2 DRAFT ENVIRONMENTAL ASSESSMENT COMMENTS

The Draft EA for this project was published in the March 8, 2004, issue of the State Office of Environmental Quality Control's The Environmental Notice, initiating a 30-day public comment period that ended on April 7, 2004. Copies of the Draft EA were distributed to the following parties for review and comments. Those parties that submitted comments are indicated by “*” next to them. Comment letters received from these parties along with corresponding response letters from the Applicant are included in Appendix B. This Final EA has incorporated additional information in response to comments received on the Draft EA.

Federal Agencies

* Department of Agriculture, Natural Resources Conservation Service
* Department of the Army, U.S. Army Engineer District, Honolulu
* Department of Interior, Fish and Wildlife Service, Pacific Islands Ecoregion
* Department of the Interior, Water Resources Division, U.S. Geological Survey
* Department of Transportation, Federal Highway Administration, Hawaii Division
* National Marine Fisheries Service, Pacific Islands Area Office
* National Oceanic & Atmospheric Administration

State of Hawaii Agencies

* Department of Agriculture
* Department of Business, Economic Development and Tourism
* Department of Business, Economic Development and Tourism, Land Use Commission

3 Telephone call received on March 10, 2004 from National Marine Fisheries Service representative indicating that they had no comments on the Draft EA, and expected that best management practices would be implemented during construction. Representative was notified that such measures would be developed during the project's design and implemented by the contractor which includes obtaining an NPDES permit.
• Department of Business, Economic Development and Tourism, Office of Planning
• Department of Hawaiian Home Lands
  » Department of Health
  » Department of Land and Natural Resources
  » Department of Land and Natural Resources, State Historic Preservation Division
• Department of Land and Natural Resources, Oahu Island Burial Council
  » Department of Transportation
  » Office of Environmental Quality Control
  » Office of Hawaiian Affairs

City and County of Honolulu Agencies
  » Board of Water Supply
  » Department of Community Services
• Department of Design and Construction
• Department of Environmental Services
  » Department of Facility Maintenance
  » Department of Planning & Permitting
  » Department of Transportation Services
  » Fire Department
  » Police Department

Non-Governmental Agencies
• The Honorable Colleen Hanabusa, Senator, 21st District
• The Honorable Michael Puamamo Kahikina, Representative, 44th District
• The Honorable Maile S. L. Shimabukuro, Representative, 45th District
• The Honorable Donavon M. Dela Cruz, Chairman, Honolulu City Council
• The Honorable Mike Gabbard, Councilman, Waianae District 1
• Waianae Coast Neighborhood Board No. 24, Chairperson
• Hawaiian Electric Company
• The Outdoor Circle
• Verizon Hawaii – Building Services
• Library Records Management & Book Store
• Waianae Public Library
CHAPTER 9
FINDINGS AND ANTICIPATED DETERMINATION

To determine whether a proposed action may have a significant effect on the environment, the Approving Agency needs to consider every phase of the action, the expected primary and secondary consequences, cumulative effect, and the short- and long-term effects. The Approving Agency's review and evaluation of the proposed action's effect on the environment would result in a determination whether: 1) the action would have a significant effect on the environment, and an Environmental Impact Statement Preparation Notice should be issued, or 2) the action would not have a significant effect warranting a Finding of No Significant Impact (FONSI).

This chapter discusses the results of the environmental assessment conducted of the proposed Waianae High School 8-Classroom Building Project in relation to the 13 Significance Criteria prescribed under the State Department of Health's Administrative Rules Title 11, Chapter 200. The purpose of this assessment was to consider the "significance" of potential environmental effects which includes the sum of effects on the quality of the environment along with the overall and cumulative effects. The resulting findings are discussed below for each criteria.

9.1 FINDINGS

1. **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource.**

The proposed improvements would not result in the irrevocable commitment to loss or destruction of any natural or cultural resource. As discussed in Chapter 2 of this Final EA, the improvements are intended to provide needed permanent classroom facilities as well as administrative support facilities for faculty and student services. This improvement will help address overcrowding conditions of classrooms, and mitigate existing noise, dust, and heat impacts on student, faculty, and equipment utilized in the classes. The proposed classroom building would be constructed on already urbanized areas, specifically that of the Waianae High School campus. Thus, there would be no destruction or loss of any significant, endangered, or threatened botanical, faunal, geological, or other natural resources.
In terms of archaeological and historic resources, there are no known historic or culturally significant sites within or surrounding the project site. In the event subsurface human remains or other indications of human activity older than 50 years are encountered during construction activities, all work would stop immediately and the SHPD notified. The treatment of human remains encountered would be determined and conducted in accordance with the applicable requirements of Chapter 6E, HRS, and Chapter 13-300, Hawaii Administrative Rules.

The project would also not restrict access to surrounding areas that may be potentially used for traditional native Hawaiian cultural practices. This project would not prevent access to shoreline areas or surrounding mauka areas that may be used for traditional gathering or other cultural practices, as the project site is located within the Waianae High School campus, and other access points exist to reach the shoreline and surrounding mauka areas.

2. **Curtails the range of beneficial uses of the environment.**

The project would not curtail the range of beneficial uses of the surrounding environment. The project site has been used by the Department of Education for many years as part of a high school campus. Therefore, the improvements planned would not change the existing uses of such lands. Existing surrounding uses would remain as the new building is within the Waianae High School property, and surrounding uses outside of the Waianae High School property would continue undisturbed. Thus, the proposed project will not limit or significantly impact existing uses or the surrounding environment.

3. **Conflicts with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.**

The improvements proposed under this project would not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS. This Final EA addressed the probable environmental impacts associated with the project, which would be primarily associated with short-term construction activities. Consequently, the project would be consistent in conserving natural resources in the area, and enhancing the quality of life for residents in Waianae, specifically that of students and faculty of Waianae High School.
4. **Substantially affects the economic, social welfare, or cultural practices of the community or State.**

As discussed under Chapter 4, the project would not have any significant negative impacts on the economic structure of the Waianae region, or the social welfare of the Waianae community. The project would create a short-term, minor economic benefit generating construction jobs and personal income. Improvements planned are limited to construction of the building, parking lot modifications, necessary infrastructure such as electrical and water connections, and additional parking area along the canal. All proposed improvements will occur within the Waianae High School property. As a result, there should be no negative impact or change to the overall character of the community. In terms of cultural practices, there are no known cultural resources at the project site or traditional native Hawaiian cultural practices occurring within the project area. Consequently, the proposed project is not expected to have an impact on cultural resources or traditional cultural practices.

5. **Substantially affects public health.**

The project is not expected to substantially affect public health since it would involve improvements to the Waianae High School campus. The proposed classroom building would improve public health by addressing the impacts of noise, dust, and heat upon students and faculty of the high school using older classrooms or portables.

6. **Involves substantial secondary impacts, such as population changes or effects on public facilities.**

The project should not have any secondary impacts on the social environment or infrastructure and public facilities. The project strictly involves only construction of a new classroom building and accessory improvements, and does not include residential housing or visitor accommodations. Therefore, there would not be any elements of the project contributing to in-migration of residents or additional visitors to the island. The project would also not significantly impact other existing infrastructure facilities or public facilities in the immediate area due to the type of improvements being proposed as discussed under Chapter 2.

---

4 This significance criteria was modified to reflect the recent change to Chapter 343, HRS approved by the Governor as Act 50 on April 26, 2000. This Act added “cultural practices” as part of the factors considered in determining the significance of an effect.
7. **Involves a substantial degradation of environmental quality.**

The proposed project would not involve a substantial degradation to the quality of the surrounding environment. Improvements are limited to construction of the new building complex, and necessary infrastructure such as electrical and water connections within the Waianae High School campus. As a result, construction activities would be performed on already urbanized areas, and necessary measures would be implemented during construction to minimize erosion and other short-term impacts.

8. **Is individually limited, but cumulatively has considerable effect upon the environment or involves a commitment for larger actions.**

This project only involves the construction of the new building and accessory facilities as described in Chapter 2. Impacts associated with these improvements were addressed in this document, and are mainly associated with construction activities. Thus, the cumulative impacts of these improvements were considered in assessing environmental impacts, and it was determined that the project would not have a significant effect on the environment. This project does not involve the commitment for larger actions on the Waianae High School campus.

9. **Substantially affects a rare, threatened, or endangered species, or its habitat.**

There are no known endangered, threatened, or rare botanical resources on the project site, or faunal and avifaunal species inhabiting the area which may be affected by construction activities or the operation of the new classroom building. Necessary control measures and best management practices would be implemented to minimize runoff and other potential short-term impacts associated with construction activity. Thus, the project is not expected to substantially affect rare, threatened, or endangered species or potential habitat for such species.

10. **Detrimentally affects air or water quality or ambient noise levels.**

The project should not have a detrimentally significant impact on air, water quality, or ambient noise levels. Impacts associated with these factors would be limited to short-term construction activities. However, such impacts are expected to be minor due to the relatively minor amount of grading and excavation proposed. To further minimize impacts, construction activities would be subject to applicable State regulations as discussed under Chapter 3.
11. Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters.

The project site is located within an environmentally sensitive area consisting of the flood plain since a large portion of the existing high school campus is within this area. However, it is not situated within a tsunami inundation zone, erosion-prone area or geologically hazardous area. Consequently, this property would not be affected by those hazards or impact such environmentally sensitive areas. Construction of the new classroom building would be done in conformance to City design standards and other agency requirements associated with this flood district.

12. Substantially affects scenic vistas and viewplanes identified in county or state plans or studies.

The proposed building would not affect scenic vistas or viewplanes. As discussed in Chapter 3, there are no significant scenic and open space viewing points for the public on the Waianae High School campus site. The school property is already developed as a public high school, with views from Farrington Highway towards the ocean obstructed by several school buildings. The project site for the building is located among existing school buildings whose height is high as or higher than the proposed project. Construction of this project is thus expected to have minimal or no effect on visual resources or public viewing points. The building will not interrupt existing viewing areas or scenic points in the Waianae region.

13. Requires substantial energy consumption.

The project would not require substantial energy consumption or increased electrical facilities to serve the pump station. Improvements planned are relatively minor and can be serviced using existing electrical distribution facilities and power generating sources.

9.2 Determination

Based upon the result of the environmental assessment documented in this Final EA, a Finding of No Significant Impact (FONSI) determination should be warranted for the Waianae High School 8-Classroom Building Project. The findings supporting this determination are based upon the previous discussion of the project's affect on the environment in relation to the 13 Significance Criteria.
CHAPTER 10
BIBLIOGRAPHY


APPENDICES
APPENDIX A

PHOTOGRAPHS OF PROJECT SITE AND SURROUNDING AREAS
**PHOTOGRAPHS OF SURROUNDING AREA**

**Figure A-1**

**Photo 1**
View of Entrance to Waianae High School Project Site

**Photo 2**
View of Driveway to Project Site

**Photo 3**
View of Marked Parking Stalls
Photo 7
View of Shoreline Looking Left of Waianae High School Play Field

Photo 8
South View of the Shoreline

Photo 9
South View of the Shoreline
APPENDIX B

CONSULTATION EFFORTS
DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96760-5440  

November 14, 2003  

Mr. Ronald A. Sato, AICP  
SSPM International, Inc.  
501 Summer Street, Suite 6200  
Honolulu, Hawaii 96817  

Dear Mr. Sato:  

Thank you for the opportunity to comment on the proposed  
construction of a new classroom building on the campus of Waianae  
High School. The State of Hawaii Department of Accounting and  
General Services is proposing to construct a single-story  
eight-classroom building to accommodate a food service lab,  
biology/marine science class, chemistry science class and other  
administrative offices.  

Based on the information submitted and office reference  
material, there are no waters of the U.S. to include wetlands  
located on this parcel. Ground disturbing activities conducted  
on this parcel will not involve the discharge of dredged or fill  
material into nearby waters, therefore a Department of the Army  
permit will not be required.  

File number 200400058 is assigned to this project. Should  
you have questions, you may contact Ms. Lolly Silva at 438-7023  
or by FAX at 438-4060.  

Sincerely,  

George P. Young, P.E.  
Chief, Regulatory Branch
February 23, 2004

Mr. George P. Young, P.E.
Chief, Regulatory Branch
U.S. Army Engineer District, Honolulu
Department of the Army
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 14, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We confirm your determination that the project site does not have any water of the U.S. including wetlands. Ground disturbing activities conducted as part of this project’s construction should not include any discharges of dredged or fill material into nearby waters. As a result, we concur that a Department of Army permit should not be required for this project. If necessary, pertinent design plans will be coordinated with your department for review during the project’s design phase.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
December 4, 2003

SSFM International, Inc
Mr. Ronald A. Sato
Senior Project Planner
501 Summer St. Suite 620
Honolulu, HI 96817

Subject: Waihaua High School – New Eight Classroom Building

Attention: Mr. Sato,

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

Thank you for the opportunity to review this document.

Sincerely,

LAWRENCE T. IAMAMOTO
State Conservationist
February 23, 2004

Mr. Lawrence T. Yamamoto, State Conservationist
Natural Resource Conservation Service
U.S. Department of Agriculture
P.O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Yamamoto:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 4, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We note you have no comments to offer at this time.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
Mr. Ronald A. Sato, AICP  
Senior project Planner  
SSFM International, Inc.  
501 Sumner Street, Suite 620  
Honolulu, Hawaii 96817  

December 1, 2003

Dear Mr. Sato:

Thank you for the opportunity to review the pre-assessment consultation report for the Draft Environmental Assessment on the Waianae High School Eight Classroom Building project. The Department of Hawaiian Home Lands has no comments to offer at this time.

If you have any questions, please call me at 586-3801 or call our Planning Office at 586-3836.

Aloha and mahalo,

Janice Yagari

McCah A. Kane, Chairman
Hawaiian Homes Commission
February 23, 2004

Mr. Micah A. Kane, State Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
State of Hawaii
P.O. Box 1879
Honolulu, Hawaii 96805

Dear Mr. Yamamoto:

Subject: Waianae High School 8-Classroom Building Project Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 1, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We note you have no comments to offer at this time.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AICP
Senior Project Planner
Mr. Ronald A. Sato, AICP
SSFM International, Inc.
50 Sumner Street. Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

SUBJECT: Early Consultation for Preparation of an Environmental Assessment for Waianae High School Eight Classroom Building
Island of Oahu, Hawaii - DADS for State Department of Education
Consultant: SSFM International Inc.

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

A copy of your letter dated November 10, 2003 (summary of project) and location maps were transmitted to the following Department of Land and Natural Resources' Divisions for their review and comment:

- Division of Aquatic Resources
- Division of State Parks
- Engineering Division
- Commission on Water Resource Management
- Office of Conservation and Coastal Lands
- Land-Oahu District Land Office
- Land-Planning and Development Manager
- Division of Forestry & Wildlife

Enclosed please find a copy of the Engineering Division comment.

Based on the attached responses, the Department of Land and Natural Resources has no other comment to offer on the subject matter.

Should you have any questions, please contact Nicholas A. Vaccaro of the Land Division Support Services Branch at 387-0384.

Very truly yours,

DIERDRE S. NAMIYA
Administrator

C: ODLO
Chairperson
November 20, 2003

LD/NAV
Ref.: WAIAANAHIGHDAGS.CMT
Suspect Date: 11/26/03

MEMORANDUM:

TO: XXX Division of Aquatic Resources
XXX Division of Forestry & Wildlife
XXX Division of State Parks
XXX Engineering Division
Division of Boating and Ocean Recreation
XXX Commission on Water Resource Management
XXX Office of Conservation and Coastal Lands
XXX Oahu District Land Office
XXX Planning and Development Manager (Keith Chun)

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Early Consultation for Preparation of a Draft
Environmental Assessment for Waianae High School New Eight
Classroom Building, Oahu, Hawaii
DAGS for State Department of Education
Consultant: SSFM International (Ronald A. Sato)

Please review the attached document (project summary) and
exhibits pertaining to the subject matter and submit your comment
(if any) on Division letterhead signed and dated by the suspete date.

Should you need more time to review the subject matter, please
contact Nick Vaccaro at ext.: 7-0384. If this office does not
receive your comments by the suspete date, we will assume there
are no comments.

We have no comments.

Comments attached.

Signed: Date: 11/25/03

Name: ERIC T. HIRANO, CHIEF ENGINEER
Division: Engineering
DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LANAI

Ref: WV786J34 INLAND Bypass

COMMENTS

( ) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Flood Zone .

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone D.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is .

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tsyu-Beau, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Sui Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-6377 (Hilo) or Mr. Kinu Enomoto at (808) 327-3510 (Kona)

( ) of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cefalo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Mr. Mario Antonio at (808) 241-6600 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments:

( ) Other:

Should you have any questions, please call Mr. Eric Yuasa of the Planning Branch at 587-0254.

Signed: Eric T. Hirano, Chief Engineer

Date: 11/28/03
MEMORANDUM:

TO: XXX Division of Aquatic Resources
XXX Division of Forestry & Wildlife
XXX Division of State Parks
XXX Engineering Division
Division of Boating and Ocean Recreation
XXX Commission on Water Resource Management
XXX Office of Conservation and Coastal Lands
XXX Oahu District Land Office
✔ XXX Planning and Development Manager (Keith Chun)

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Early Consultation for Preparation of a Draft Environmental Assessment for Waianae High School New Eight Classroom Building, Oahu, Hawaii
DAGS for State Department of Education Consultant: SSIM International (Ronald A. Sato)

Please review the attached document (project summary) and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

✓ We have no comments.

( ) Comments attached.

Signed: KCC

Date: 11-26-03

Name: KEITH CHUN

Division: LAND DIVISION
MEMORANDUM:

TO: XXX Division of Aquatic Resources
    XXX Division of Forestry & Wildlife
    XXX Division of State Parks
    XXX Engineering Division
    Division of Boating and Ocean Recreation
    XXX Commission on Water Resource Management
    XXX Office of Conservation and Coastal Lands
    XXX Oahu District Land Office
    XXX Planning and Development Manager (Keith Chun)

FROM: Dierdre S. Mamiya, Administrator
       Land Division

SUBJECT: Early Consultation for Preparation of a Draft
         Environmental Assessment for Waianae High School New Eight
         Classroom Building, Oahu, Hawaii
         DARGS for State Department of Education
         Consultant: SSFM International (Ronald A. Sato)

Please review the attached document (project summary) and
exhibits pertaining to the subject matter and submit your comment
(if any) on Division letterhead signed and dated by the suspense
date.

Should you need more time to review the subject matter, please
contact Nick Vaccaro at ext.: 7-0384. If this office does not
receive your comments by the suspense date, we will assume there
are no comments.

We have no comments. ( ) Comments attached.

Signed: Date: 11/24/03

Name: Division: Subba Parker
February 23, 2004

Ms. Dierdre S. Mamiya, Administrator
Land Division
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Dear Ms. Mamiya:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 28, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project. We offer the following responses to the comments received from your divisions.

Division of Forestry and Wildlife

We note that this division indicated they had no comments on this project at this time.

Office of Conservation and Coastal Lands

We note that this division indicated they had no comments on this project at this time.

Planning and Development

We note that this division indicated they had no comments on this project at this time.

Division of State Parks

We note that this division indicated they had no comments on this project at this time.

Engineering Division

We believe that the project site is located within the Zone AE of the applicable Flood Insurance Rate Map. More details on applicable flood zones will be discussed in the Draft EA.
Project water demands will be developed as part of the project’s design when more details on facilities are established. Calculations used in developing the project’s water demand will be provided to your division as requested so that it can be included in the State Water Projects Plan Update. The Board of Water Supply has indicated that the existing water system is sufficient to serve this project. A water allocation will be obtained from the State Department of Land and Natural Resources during the design phase of the project.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
December 2, 2003

Ronald A. Sato, AICP
Senior Project Planner
SSFM International
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Sato:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Wai‘anae High School
New Eight Classroom Building—Pre-Assessment Consultation for Draft
Environmental Assessment
Wai‘anae, Wai‘anae, O‘ahu

Thank you for the opportunity to provide comment for the DEA on the Wai‘anae High School Media Center project. Our review is based on historic reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was made of the project areas. We received notification of this undertaking from your office on November 13, 2003.

The State of Hawaii, Department of Accounting and General Services proposes to construct a new single story 12,060 square foot classroom building situated within the existing high school campus. A review of our records shows that there are no known surface historic sites at the location of the proposed building. However several buried cultural sites, including human burials, have been recovered from nearby areas in substrates and also have been uncovered by high wave and high wind activity along the shoreline on both sides of Wai‘anae High School. The human remains identified within Wai‘anae Regional Park were located approximately 25 meters (82 feet) inland of the shoreline. Consequently, it is possible that construction of the new classroom building could have an “adverse effect” on buried significant historic sites, which may be present.
In January 2002 we commented on the construction of the new media center for the school (SHPD Log 29067, January 28, 2002). Subsequent to these comments we were provided with additional information from DAGS that demonstrated that the proposed media center would be constructed in fill soils in lands that were extensively altered through previous grading and past use (SHPD Log 29442, April 2002).

We have not been provided detailed plans of the construction of the new classroom building and are unsure of the extent of ground disturbance that will be required. Also, we understand that a Cultural Impact Assessment is currently being conducted for this project. We will wait for the results of the Assessment and hope that it will provide additional information on the past land use of the area. This information can then be used to make a determination on the effect this project would have on significant historic sites. If this information is not available, an archaeological inventory survey with subsurface testing may need to be conducted prior to any ground disturbance.

Should you have any questions regarding archaeological concerns, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027. For questions regarding burials, please contact Kai Markell at 587-0008. And finally, for questions regarding cultural matters, please contact Nathan Napoka at 587-0040.

Aloha,

P. Holly McEldowney, Acting Administrator
State Historic Preservation Division

E:jk

c: Kai Markell, DLNR/SHPD Burials Sites Program
Van Horn Diamond, Chair Oahu Island Burial Council
Nathan Napoka, DLNR, Cultural History Branch
February 23, 2004

Ms. P. Holly McEldowney, Acting Administrator
Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
Kaluhuhewa Building, Room 555
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Ms. McEldowney:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 2, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We confirm your review of records showing that there are no known surface historic sites present at the proposed building project site. This building would be constructed on a portion of the existing paved parking lot and open space area next to Building I which appears to have been extensively disturbed from that construction.

We understand that several buried cultural sites, including human burials, have been recovered from shoreline and nearby areas on both sides of Waianae High School. This includes human remains identified within the adjacent Waianae Regional Park.

The extent of ground disturbance for the project site has not been determined at this time since design and construction plans for the building have not been developed yet. Only preliminary conceptual plans have been developed thus far for the building. However, when detailed design plans are developed for this project, they will be appropriately coordinated with your department for review.

A cultural impact assessment was completed for this project and will be included in the Draft Environmental Assessment that is published. A copy of this assessment will be provided to you for review as part of the normal environmental review process. The results of this study determined that there were no information suggesting the likelihood of encountering subsurface cultural layers or burials at the project site.
Based upon this study, we believe the project should not have a significant adverse effect on buried cultural sites, including human burials. Therefore, we believe an archaeological inventory survey with subsurface testing should not be warranted for this project. We hope the information provided in the published Environmental Assessment and cultural impact assessment study performed provides you with enough information to assist with your determination.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AICP
Senior Project Planner
December 8, 2003

Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Summer St., Ste 620
Honolulu, HI 96817

RE: Waianae High School—New Eight Classroom Building Pre-Assessment for Draft EA.

Dear Mr. Sato,

Thank you for the opportunity to consult with you regarding the above referenced project.

OHA notes that Waianae High School is located in an area of sand dunes, and there is a possibility of finding human remains during ground excavating activities. We suggest that you consult with Native Hawaiians familiar with the area, members of local Hawaiian Civic Clubs, and with the O‘ahu Island Burial Council.

We also suggest that you work with Native Hawaiians familiar with the area, members of local Hawaiian Civic Clubs and members of the Royal Societies to ensure that access to traditional and cultural resources are not abridged. This includes access to fishing areas, access to ilimu or salt gathering areas, and access to coastal trails.

Thank you for this opportunity to comment. Please contact Pua Aiu at 594-1931 or by e-mail at piau@oha.org if you have further questions.

Sincerely,

[Signature]

Clyde W. Namu’o
Administrator
February 23, 2004

Mr. Clyde W. Namu’o, Administrator
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Namu’o:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 8, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment (Draft EA) for the subject project.

The project site, along with other areas of Waianae High School, is identified as having Coral Outcrop (CR) as underlying soils based upon the Soil Survey of Islands of Kauai, Oahu, Maui, Molokai and Lanai. This soil type consists of coral or cemented calcareous sand of Oahu.

We understand that buried cultural sites, including human burials, have been recovered from shoreline and nearby areas on both sides of Waianae High School. Consequently, there is a possibility of encountering human remains within the high school campus.

A cultural impact assessment was completed for this project and will be included in the Draft EA that is published. This study included consultation with several organizations and individuals knowledgeable of the project site to determine potential impacts on traditional cultural practices and subsurface cultural layers.

The results of this study determined there were no information suggesting the likelihood of encountering subsurface cultural layers or burials at the project site. Consequently, we believe the project should not have a significant adverse effect on buried cultural sites, including human burials. In addition, this project should not adversely affect any traditional cultural practices that may be occurring in the surrounding area.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AJCP
Senior Project Planner
November 25, 2003

Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School – New Eight Classroom Building
Pre-Assessment Consultation for Draft Environmental Assessment

Thank you for the opportunity to comment on this project. We do not have any comments at this time.

If there are any questions, please call Mr. Randy Wong at 523-4435.

Sincerely,

[Signature]

MICHAEL T. AMII
Director

MTAdkl
February 23, 2004

Mr. Michael T. Amii, Director
Department of Community Services
City and County of Honolulu
715 South King Street, Suite 311
Honolulu, Hawaii 96813

Dear Mr. Amii:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 25, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project. We note you have no comments to offer at this time.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
Mr. Ronald A. Sato, AICP  
SSFM International, Inc.  
501 Summer Street, Suite 620  
Honolulu, Hawaii 96817  

Dear Mr. Sato:

Subject: Your Letter of November 10, 2003 on the Waianae High School  
New Eight Classroom Building Pre-Assessment Consultation

Thank you for the opportunity to comment on the proposed project.

The existing water system is presently adequate to accommodate the proposed classroom building.

A water allocation is required from the State Department of Land and Natural Resources.

The availability of water will be confirmed when the building permit is submitted for our approval. When water is made available, the applicant will be required to pay the applicable Water System Facilities Charges.

The proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit.

If you have any questions, please contact Joseph Kaakua at 748-5442.

Very truly yours,

K. Ikeda  

CLIFFORD S. JAMILE  
Manager and Chief Engineer

Pure Water . . . our greatest need - use it wisely
February 23, 2004

Mr. Clifford S. Jamile, Manager & Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Jamile:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 25, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We confirm your information that the existing water system is presently adequate to accommodate the proposed project. A water allocation will be obtained from the State Department of Land and Natural Resources during the design phase of the project.

Design plans will be coordinated with your department for review and approval as part of ministerial permits required for this project. The applicant will also pay the required Water System Facilities Charges when water is made available. Your department's cross-connection control and backflow prevention requirements will be incorporated in the project's design.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AICP
Senior Project Planner
November 17, 2003

Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 602
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School – New Eight Classroom Building Pre-Assessment Consultation for Draft Environmental Assessment

Thank you for giving us the opportunity to comment regarding your Pre-Assessment Consultation. We have no comments or concerns at the present time.

Please keep us informed as your project progresses.

Should you have any questions, please call me at 523-4472.

Very truly yours,

Larry Leopardi, P.E.
Director and Chief Engineer
February 23, 2004

Mr. Larry Leopardi, P.E., Director & Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
1000 Uluniahi Street, Suite 215
Kapolei, Hawaii 96707

Dear Mr. Leopardi:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 17, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We note you have no comments to offer at this time. The applicant will also keep your department informed as the project progresses to design and construction.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
December 1, 2003

Mr. Ronald A. Sato, AICP, Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School – New Eight Classroom Building
TMK 1-9-4-08:20
Early Consultation

Thank you for the opportunity to review and comment on the Environmental Assessment Early Consultation relating to the proposed construction of a new eight classroom building on the campus of Waianae High School.

The Department of Parks and Recreation has no comment on this project; and as it will not affect any facilities or programs of this department, you are invited to remove us as a consulted party to the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 692-5454.

Sincerely,

WILLIAM D. BALFOUR, JR.
Director

WDB:cu (61235)
February 23, 2004

Mr. William D. Balfour, Jr., Director
Department of Parks and Recreation
City and County of Honolulu
1000 Uluohia Street, Suite 309

Dear Mr. Balfour:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 1, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We note your determination that the project will not affect any facilities or programs of your department. We will also remove you as a consulted party under this environmental review process as indicated, and thank you for your participation in this process.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
November 26, 2003

Mr. Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Thank you for the opportunity to comment on the Pre-Assessment Consultation, Draft Environmental Assessment, for the new eight-classroom building at Waianae High School.

This area is patrolled by police officers that report to the Waianae Substation in the Honolulu Police Department's District 8. Provided that adequate measures are taken to secure the costly equipment that will be housed in the new building, this addition to the campus should have minimal impact on the services provided by this department.

If there are any questions, please call Captain George Yamamoto of District 8 at 692-4253 or Ms. Carol Sodetani of the Support Services Bureau at 529-3656.

Sincerely,

LEE D. DONOHUE
Chief of Police

By
KARL GODSEY
Assistant Chief of Police
Support Services Bureau

Serving and Protecting with Aloha
February 23, 2004

Mr. Lee D. Donohue, Chief of Police
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Dear Chief Donohue:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 26, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

Thank you for the information on the Waianae Substation and patrol area by your department’s officers. The design of the project will include measures to address security for the new classroom building to protect costly equipment. As a result, we note that this project should have minimal impact on the services provided by your department.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
Mr. Ronald A. Sato, AICP  
Senior Project Planner  
SSFM International, Inc.  
501 Sumner Street, Suite 620  
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School  
New Eight-Classroom Building  
Pre-Assessment Consultation for Draft Environmental Assessment

We received your letter dated November 10, 2003, requesting our comments on the above-mentioned project.

The Honolulu Fire Department (HFD) requires that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000-pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.
3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,

[Signature]

ATTILIO K. LEONARDI
Fire Chief

AKL/SK: bh
February 23, 2004

Mr. Attilio K. Leonardi, Chief
Honolulu Fire Department
City and County of Honolulu
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Chief Leonardi:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 25, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

The water system serving this new classroom building project will be designed in conformance with Board of Water Supply design standards and requirements. This includes requirements to meet hydrant spacing and fire flow requirements.

A fire access lane with turnaround will be provided around the new classroom building, and will be designed in conformance with Department of Transportation Services standards. Civil drawings will be submitted to your department for review and approval during the project's design phase.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AICP
Senior Project Planner
Mr. Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

December 2, 2003

Dear Mr. Sato:

Subject: Waianae High School – New Eight Classroom Building

In response to your November 10, 2003 letter, we reviewed the information provided regarding the subject project. The only comment that we have is that the project should be coordinated with the State Department of Transportation because there may be potential impacts on Farrington Highway during construction.

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

Sincerely,

CHERYL D. SOON
Director
February 23, 2004

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated December 2, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

As suggested, this project will be coordinated with the State Department of Transportation to address potential impacts on Farrington Highway during construction. This will include agency consultation as part of the normal environmental review process.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

[Signature]

Ronald A. Sato, AICP
Senior Project Planner
November 26, 2003

Mr. Ronald A. Sato
SSFM International, Inc.
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Preliminary Assessment
Waianae High School

This is in response to your letter dated November 10, 2003, requesting pre-Environmental Assessment (EA) comments for a new single-story, eight-classroom building complex at Waianae High School. We have the following comments:

1. A current location of the shoreline (based on a field survey less than one year old) should be shown on the site plan, along with the 50-foot shoreline waiver line. All work must be more than 50 feet from the shoreline. If any of the work is more than 40 feet, but less than 55 feet from the shoreline, a current certified shoreline survey is required.

2. A Shoreline Variance will be required if the new building is less than 40 feet from the shoreline.

3. The site appears to be on the border of two tax map keys (TMK). Please include the TMK in the Draft EA.

4. The site is zoned P-2 General Preservation District. A waiver will be required if any structure over 30 inches in height is within the 30-foot front yard setback or 15-foot side yard setback.

5. The site is within the Special Management Area (SMA). A SMA Permit will be required.
Mr. Ronald A. Sato  
Page 2  
November 26, 2003

Thank you for the opportunity to review the project. We would like to review the Draft EA when it becomes available. Please submit four copies of the Draft EA to our department so that we may route the EA to other branches for their review.

Should you have any questions regarding this letter, you may contact Dana Teramoto of our staff at 523-4648.

Sincerely yours,

[Signature]

ERIC G. CRISPIN, AIA  
Director of Planning  
and Permitting

EGC:pl  
doc 160881
February 23, 2004

Mr. Eric G. Crispin, AIA, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Crispin:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 26, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment (Draft EA) for the subject project.

A certified shoreline survey has been completed for this project, and will be included in the Draft EA. This shoreline boundary will also be shown on the preliminary Site Plan for this project as requested.

The proposed classroom building will be located further than 40 feet away from the certified shoreline. However, some grading and excavation activities may be needed to create a fire access lane around this building to provide necessary access. A Shoreline Variance will be requested at the appropriate time for such improvements.

A figure showing the Tax Map Key parcels associated with the Waianae High School campus will be included in the Draft EA.

No structures are planned within the front or side yard setback area. However, necessary waivers will be requested for other development standards at the appropriate time. A Special Management Area Use Permit application will also be submitted for this project.

Four copies of the Draft EA will be provided to your department as part of the normal review process. If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
November 26, 2003

Attention: Mr. Ronald A. Sato, AICP
SSFM International
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: WAIANAE HIGH SCHOOL - NEW EIGHT CLASSROOM BUILDING
PRE-ASSESSMENT CONSULTATION FOR DRAFT ENVIRONMENTAL
ASSESSMENT

Thank you for the opportunity to review and comment on the pre-
assessment consultation for the draft environmental assessment
for the Waianae High School - New Eight Classroom Building
project. At this time, Verizon Hawaii does not have any concerns
or any apparent regulatory requirements in regards to this
project.

If you have any questions or require assistance in the future on
this project, please call Les Loo at 840-5861.

Sincerely,

Jill Z. Lee
Section Manager
Outside Plant Engineering
February 23, 2004

Ms. Jill Z. Lee, Section Manager
Outside Plant Engineering
Verizon Hawaii, Inc.
P.O. Box 2200
Honolulu, Hawaii 96841

Dear Ms. Lee:

Subject: Waianae High School 8-Classroom Building Project
Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 26, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We not you have no concerns or comments on regulatory requirements to offer at this time.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
November 25, 2003

Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Sumner Street - Suite 620
Honolulu, HI 96817

Re: Walanae High School
New Eight Classroom Building
Pre-Assessment Consultation for DEA

Thank you for the opportunity for early comment on the draft EA of the subject project, as proposed by the Department of Accounting and General Services, State of Hawaii. We have reviewed the exhibits of the project location and proposed site and have no comments at this time.

HECO reserves the opportunity to further comment on the protection of existing powerlines and electric power facilities that may be affected by the project until construction plans are finalized.

Please note that Sherri-Ann Loo is the current Manager of HECO's Environmental Department, and we ask that future requests for EA review be forwarded to her attention.

Again, thank you for the opportunity to comment on this draft EA.

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

cc: Ms. Genevieve Salmonson (OEQC)
February 23, 2004

Mr. Kirk S. Tomita, Senior Environmental Scientist
Hawaiian Electric Company, Inc.
P.O. Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. Tomita:

Subject: Waianae High School 8-Classroom Building Project
         Pre-Assessment Comments, Draft Environmental Assessment

Thank you for your letter dated November 25, 2003 providing comments on the pre-assessment consultation efforts used in preparing the Draft Environmental Assessment for the subject project.

We note you have no comments to offer at this time, and that HECO reserves the right to comment on construction plans prepared. Necessary construction plans will be coordinated with your company during the project’s design phase. As requested, future requests as part of environmental assessment reviews will be forwarded to Ms. Sherri-Ann Loo.

If you have any questions on this matter, please contact me at 531-1308. Thank you.

Sincerely,

Ronald A. Sato, AICP
Senior Project Planner
APPENDIX B-2

DRAFT EA COMMENT LETTERS AND RESPONSES
March 24, 2004

SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Subject: Draft Environmental Assessment for the Waianae High School

Attention: Mr. Ronald A. Sato, AICP

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

Thank you for the opportunity to review this document.

Sincerely,

[Signature]

LAWRENCE T. YAMAMOTO
State Conservationist

Cc: Mr. Ralph Morita; Department of Accounting and General Services
Office of Environmental Quality and Control
Mr. Lawrence T. Yamamoto, State Conservationist
Natural Resources Conservation Service
United States Department of Agriculture
Post Office Box 50004
Honolulu, Hawaii 96850

Dear Mr. Yamamoto:

Subject: Waianae High School
Four Classroom Building
Draft Environmental Assessment (EA)

Thank you for the letter dated March 24, 2004, on the Draft EA for the subject project. We note your department has no comments on the project at this time.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

[Signature]

HAROLD SONOMURA
Acting Public Works Administrator

GN:mo
c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PWD, PMB
STATE OF HAWAII
DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM
LAND USE COMMISSION
P.O. Box 2059
Honolulu, Hawaii 96804-2059
Telephone: 808-587-3822
Fax: 808-587-3827

March 23, 2004

Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School Eight Classroom Building Project
        TMK: (1)8-5-002:18; (1)8-5-015:001
        Waianae, Oahu, Hawaii

We acknowledge receipt of your transmittal dated March 4, 2004 regarding the above subject application, and confirm that the subject parcel is designated within the boundary of the State Land Use Urban District.

Given the location, scope, and nature of the proposed activity, the State Land Use Commission defers to the judgment of the City and County of Honolulu in this matter. We have no further comments to offer at this time.

Thank you for the opportunity to comment on the subject project. Please feel free to contact me at 587-3822 should you require clarification or any further assistance.

Sincerely,

ANTHONY J.H. CHING
Executive Officer

c: Mr. Ralph Morita, DAGS
   OEQC
MEMORANDUM

TO: Mr. Anthony J.H. Ching, Executive Officer
    Land Use Commission
    Department of Business, Economic Development & Tourism

FROM: Harold Sonomura
     Acting Public Works Administrator

SUBJECT: Waianae High School
         Eight Classroom Building Project
         Draft Environmental Assessment (EA)

Thank you for the letter dated March 23, 2004, providing comments on the Draft (EA) for the subject project.

We confirm your department's determination that the project site is within the boundaries of the State Land Use Urban District. We also note your department is deferring judgment on the proposed improvements to the City.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo

c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PWD, PMB
April 14, 2004

Mr. Ronald A. Sato
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

SUBJECT: Draft Environmental Assessment for the Waianae High School Eight-Classroom Building Project
Waianae District, Oahu TMK(1)8-5-002: 18; (1) 8-5-015:001

Thank you for allowing us to review and comment on the subject document. We have the following comments to offer. If you have any questions about these comments please contact Ryan Davenport at 586-4346.

Clean Water Branch Standard Comments

1. The Army Corps of Engineers should be contacted at (808) 438-9258 to identify whether a Federal license or permit (including a Department of Army permit) is required for this project. Pursuant to Section 401(a)(1) of the Federal Water Pollution Act (commonly known as the “Clean Water Act”), a Section 401 Water Quality Certification is required for “[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters…”

2. A National Pollutant Discharge Elimination System (NPDES) general permit coverage is required for the following activities:

   a. Storm water associated with industrial activities, as defined in Title 40, Code of Federal Regulations, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xii).

   b. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. An NPDES permit is required before the commencement of the construction activities.
c. Discharges of treated effluent from leaking underground storage tank remedial activities.

d. Discharges of once through cooling water less than one (1) million gallons per day.

e. Discharges of hydrotesting water.

f. Discharges of construction dewatering effluent.

g. Discharges of treated effluent from petroleum bulk stations and terminals.

h. Discharges of treated effluent from well drilling activities.

i. Discharges of treated effluent from recycled water distribution systems.

j. Discharges of storm water from a small municipal separate storm sewer system.

k. Discharges of circulation water from decorative ponds or tanks.

The CWB requires that a Notice of Intent (NOI) to be covered by a NPDES general permit for any of the above activities be submitted at least 30 days before the commencement of the respective activities. The NOI forms may be picked up at our office or downloaded from our website at http://www.state.hi.us/health/eh/cwb/forms/gent-index.html.

3. The applicant may be required to apply for an individual NPDES permit if there is any type of activity in which wastewater is discharged from the project into State waters and/or coverage of the discharge(s) under the NPDES general permit(s) is not permissible (i.e. NPDES general permits do not cover discharges into Class 1 or Class AA receiving waters). An application for the NPDES permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at http://www.state.hi.us/health/eh/cwb/forms/indiw-index.html.

4. Hawaii Administrative Rules, Section 11-55-38, also requires the owner to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. Please submit a copy of the request for review by SHPD or SHPD’s determination letter for the project.

If you have any questions, please contact the CWB at 586-4309.

Clean Air Branch

Control of Fugitive Dust:

There is a significant potential for fugitive dust emissions during all phases of construction. Proposed construction activities will occur in proximity to existing residences, public areas and major thoroughfares, thereby exacerbating potential dust problems. It is recommended that a
Mr. Ronald A. Sato  
April 14, 2004  
Page 3

dust control management plan be developed which identifies and addresses all activities that have a potential to generate fugitive dust. Implementation of adequate dust control measures during all phases of development and construction activities is warranted.

Construction activities must comply with the provisions of Hawaii Administrative Rules, §11-60.1-33 on Fugitive Dust.

The contractor should provide adequate measures to control dust from the road areas and during the various phases of construction. These measures include, but are not limited to, the following:

a) Plan the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing on-site vehicular traffic routes, and locating potential dust-generating equipment in areas of the least impact;

b) Provide an adequate water source at the site prior to start-up of construction activities;

c) Landscape and provide rapid covering of bare areas, including slopes, starting from the initial grading phase;

d) Minimize dust from shoulders and access roads;

e) Provide adequate dust control measures during weekends, after hours, and prior to daily start-up of construction activities; and

f) Control dust from debris being hauled away from the project site.

If you have any questions on fugitive dust issues, please contact Mr. Barry Ching of the Clean Air Branch at 586-4200.

**Solid and Hazardous Waste Branch**

1) The OSWM recommends the development of a solid waste management plan that encompasses all project phases including demolition, construction, and occupation/operation of the completed project.

Specific examples of elements that the plan should address include:

- The recycling of green-waste during clear and grub activities;
- Recycling construction and demolition wastes, if appropriate;
- The use of locally produced compost in landscaping;
- The use of recycled content building materials;
- The provision of recycling facilities in the design of the project.

2) The developer shall ensure that all solid waste generated during project construction is directed to a Department of Health permitted solid waste disposal or recycling facility.

If you have any questions, please contact the Solid and Hazardous Waste Branch at (808) 586-4240.
Mr. Ronald A. Sato  
April 14, 2004  
Page 4  

**Wastewater Branch**  

We have reviewed the document on the subject project submitted which proposes the construction of a new single-story building complex on the campus of Waianae High School that will provide eight (8) additional classrooms, accessory rooms to support the school's educational programs, and parking lot modifications. As a sewer line extension will connect the new building to existing sewer lines serving the high school campus, we have no objections to the proposed construction.  

As the project can be served by the City’s sewer system, we have no objections to the development. We encourage the developer to work with the City and utilize recycle water for irrigation and other non-potable water purposes.  

All wastewater plans must conform to applicable provisions of the Department of Health's Administrative Rules, Chapter 11-62, "Wastewater Systems." We do reserve the right to review the detailed wastewater plans for conformance to applicable rules. Should you have any questions, please contact the Planning & Design Section of the Wastewater Branch at telephone (808)586-4294.  

Sincerely,  

[Signature]  

JUNE F. HARRIGAN-LUM, MANAGER  
Environmental Planning Office  

c:  
CWB  
SDWB  
CAB  
Dept. of Accounting and General Services  
OEQC
MEMORANDUM

TO:  Ms. June F. Harrigan-Lum, Manager
      Environmental Planning Office
      Department of Health

FROM: Harold Sonomura
      Acting Public Works Administrator

SUBJECT: Waianae High School
         Eight Classroom Building Project
         Draft Environmental Assessment (EA)

Thank you for the letter dated April 14, 2004, providing comments on the Draft EA for the subject project. We offer the following responses to the comments received from your divisions.

Clean Water Branch

The Army Corps of Engineers were consulted on this project, and determined that a Department of Army Permit would not be required as indicated in their November 14, 2003, letter included in Appendix B of the Draft EA.

Coverage under the NPDES general permit will be obtained for this project for construction activities as well as other applicable activities. A Notice of Intent (NOI) will be submitted at least 30 days prior to commencement of activities, and should not require an individual NPDES permit. A copy of the NOI will be submitted to the State Historic Preservation Division for review.
Clean Air Branch

A dust control management plan will be developed by our design consultant during the design phase of this project, and will consider those measures identified in your letter when developing the plan. The contractor will implement necessary measures during construction and comply with the provisions of Hawaii Administrative Rules covering fugitive dust.

Solid and Hazardous Waste Branch

A solid waste management plan will be developed by our design consultant during the design phase of this project. Those elements of the plan identified will be considered. All solid waste generated from construction activities will be properly disposed at a waste or recycling facility.

Wastewater Branch

We note this branch has no objections to the project's construction since it will connect to existing sewer lines serving the Waianae High School campus. The use of recycled water for irrigation and other non-potable water purposes will be considered during the project's design. All wastewater plans will be designed to conform with applicable provisions of your department's Administrative Rules.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo

c:  Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PWD, PMB
LD-NAV
WAIAANEHIGHCLASSROOMDEA.RCM2

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809
April 6, 2004

FAX

SSFM International
Ronald A. Sato, AICP, Senior
Project Planner
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

SUBJECT: Review: Draft Environmental Assessment
Project: Waianae High New Eight Classroom Building
Applicant: SSFM International, the Department of Accounting and
General Services, State of Hawaii
Location: Waianae, Island of Oahu, Hawaii
Tax Map Key: 1st/ 8-5-2: 018 and 8-5-015: 001

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

A copy of the DEA pertaining to the subject matter was made available or
transmitted to the following Department of Land and Natural Resources'
Division for their review and comment:

- Division of Forestry and Wildlife
- Commission on Water Resource Management
- Engineering Division
- Land Division Oahu District Land Office

Enclosed please find a copy of the Commission on Water Resource
Management comment.

The Department of Land and Natural Resources has no comment to offer on
the subject matter.

Should you have any questions, please feel free to contact Nicholas A.
Vaccaro of the Land Division Support Services Branch at 587-0384.

Very truly yours,

DIERDRE S. MAMIYA
Administrator

c: Oahu District Land Office
MEMORANDUM:

TO: Division of Aquatic Resources
XXX Division of Forestry & Wildlife
Division of State Parks
XXX Engineering Division
Division of Boating and Ocean Recreation
XXX Commission on Water Resource Management
Office of Conservation and Coastal Lands
XXX Land-Oahu District Land Office
Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Draft Environmental Assessment (DEA) for Waianae High School New Eight Classroom Building, Oahu, Hawaii
DAGS for State Department of Education
Consultant: SSFM International (Ronald A. Sato)

Please review the attached DEA and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-0384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) Comments attached.

Signed: ____________________________
Date: MAR 10 2004
Name: ____________________________

DIVISION OF FORESTRY AND WILDLIFE
MEMORANDUM:

TO: Division of Aquatic Resources
XXX Division of Forestry & Wildlife
Division of State Parks
XXX Engineering Division
Division of Boating and Ocean Recreation
XXX Commission on Water Resource Management
Office of Conservation and Coastal Lands
XXX Land-Oahu District Land Office
Land-Planning and Development

FROM: Dierdre S. Mamiya, Administrator
Land Division

SUBJECT: Draft Environmental Assessment (DEA) for Waianae High School New Eight Classroom Building, Oahu, Hawaii
DAGS for State Department of Education
Consultant: SSFM International (Ronald A. Sato)

Please review the attached DEA and exhibits pertaining to the subject matter and submit your comment (if any) on Division letterhead signed and dated by the suspense date.

Should you need more time to review the subject matter, please contact Nick Vaccaro at ext.: 7-6384. If this office does not receive your comments by the suspense date, we will assume there are no comments.

( ) We have no comments. (x) Comments attached.

Signed: [Signature]  
Date: 3-12-04

Name: [Signature]  
Division: [Signature]
March 16, 2004

TO: Ms. Dede Mamiya, Administrator
Land Division

FROM: Ernest Y.W. Lau, Deputy Director
Commission on Water Resource Management (CWRM)

SUBJECT: Draft Environmental Assessment (DEA) for Waianae High School New Eight Classroom Building, Oahu, Hawaii

FILE NO.: WAIANAELIGHDAGSDEA.CMT

Thank you for the opportunity to review the subject document. Our comments related to water resources are marked below.

In general, the CWRM strongly promotes the efficient use of our water resources through conservation measures and use of alternative non-potable water resources whenever available, feasible, and there are no harmful effects to the ecosystem. Also, the CWRM encourages the protection of water recharge areas, which are important for the maintenance of streams and the replenishment of aquifers.

[X] We recommend coordination with the county government to incorporate this project into the county’s Water Use and Development Plan.

[X] We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

[ ] We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer’s acceptance of any resulting requirements related to water quality.

[ ] A Well Construction Permit and/or a Pump Installation Permit from the Commission would be required before ground water is developed as a source of supply for the project.

[ ] The proposed water supply source for the project is located in a designated water management area, and a Water Use Permit from the Commission would be required prior to use of this source.

[ ] Groundwater withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

[ ] We are concerned about the potential for degradation of instream uses from development on highly erodible slopes adjacent to streams within or near the project. We recommend that approvals for this project be conditioned upon a review by the corresponding county’s Building Department and the developer’s acceptance of any resulting requirements related to erosion control.

[ ] If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and an instream flow standard for the affected stream(s).

[ ] If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.

[ ] OTHER:

If there are any questions, please contact Lenore Y. Nakama at 587-0218.
MEMORANDUM

TO: Ms. Dierdre S. Mamiya, Administrator
    Land Division
    Department of Land and Natural Resources

FROM: Harold Sonomura
       Acting Public Works Administrator

SUBJECT: Waianae High School
          Eight Classroom Building
          Draft Environmental Assessment (EA)

Thank you for the letter dated April 6, 2004, which commented on the Draft EA for the subject project. We offer the following responses to the comments received from your divisions.

Division of Forestry and Wildlife

We note that this division indicated they had no comments on this project at the time.

Commission on Water Resource Management

We will coordinate with the Commission on Water Resource Management during this project's design phase so that they can incorporate project information into the State Water Project Plan.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo
 c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DARGS-PWD, PMB
March 19, 2004

Ronald A. Sato, AICP
Senior Project Planner
SSFM International
501 Sumner Street, Suite 502
Honolulu, Hawaii 96817

Dear Mr. Sato:

SUBJECT: Chapter 6E-8 Historic Preservation Review – Draft Environmental Assessment (DEA) for the Wa‘ianae High School New Eight Classroom Building
Wa‘ianae, Wa‘ianae, O‘ahu
TMK: (1) 8-5-002:018; 8-5-015:001

Thank you for the opportunity to provide comment on the DEA for the Wa‘ianae High School New Eight Classroom Building Project. Our previous comments provided during the pre-EA consultation phase, are included in full in Appendix B. We received the DEA from your office on March 1, 2004 and provide the following comments.

We previously commented that we believed that the proposed project may have an adverse effect on buried significant historic sites, which may be present. However, at that time we were unsure of the extent of ground disturbance that would be required and were also awaiting the results of the Cultural Impact Assessment in hopes that it would provide additional information on the past land use of the area.

Archaeological Comments

We previously commented that we believed that construction of the new classroom building could have an “adverse effect” on unknown buried significant historic sites. The DEA now provides information that the project area has been significantly disturbed during to development of the Building 1 and the nearby paved parking lot. As a result no historic sites are likely to exist within the proposed project area. Thus we believe that “no historic properties will be affected by construction of the new building.

Culture/History Comments

Only two formal informant interviews were conducted for this assessment. The interview with William Aita alluded to two other individuals who could possibly have more knowledge of this area. It was too bad that these individuals were not available. It is our understanding that at least three attempts were made to contact these individuals.
Informants Frenchie DeSoto and William Aila both stated that there is very little possibility for the existence of burials within the project area due to previous development of the property. Traditional maritime practices referred to in this document all occur outside of the project area.

It is our understanding that this Cultural Impact Assessment for the proposed undertaking did not identify any cultural/historic properties within the project area. This finding concurs with the archaeological assessment that "no historic properties will be affected by construction of the new building."

Should you have any questions regarding archaeological concerns, please feel free to call Sara Collins at 692-8026 or Elaine Jourdane at 692-8027. For questions regarding burials, please contact Kai Markell at 587-0008. And finally, for questions regarding cultural matters, please contact Nathan Napoka at 587-0192.

Aloha,

P. Holly McElowney, Administrator
State Historic Preservation Division

cc: Ralph Morta, DAGS, State of Hawaii P. O. Box 119, Honolulu, HI 96817
    OEQC, 135 S. Beretania St., Rm. 702, Honolulu, HI 96813
    Kai Markell, DLNR/SHPD Burials Sites Program
    Van Horn Diamond, Chair Oahu Island Burial Council
    Nathan Napoka, DLNR, Cultural History Branch
MEMORANDUM

TO: Ms. P. Holly McEldowney, Administrator
    State Historic Preservation Division
    Department of Land and Natural Resources

FROM: Mr. Harold Sonomura, Acting Public Works Administrator

SUBJECT: Waianae High School
        Eight Classroom Building
        Draft Environmental Assessment (EA)

Thank you for the letter date March 19, 2004, providing comments on the Draft EA for the subject project.

We are glad the project information in the Draft EA, which included the cultural assessment, provided your department with enough information to make a determination as to the probable impacts on significant historic sites.

We confirm your determination that no historic properties will be affected by construction of this project since the area has been significantly disturbed by prior development of the existing classroom building and adjacent parking lot.

We further confirm that the cultural assessment conducted concurs with the archaeological assessment that no historic properties will be affected by the project.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo

C: Mr. Ronald A. Sato, SSFM
   Mr. Walter Kobayashi, DACS-PWD, PMB
Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Summer Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Draft Environmental Assessment for Waianae High School – Eight Classroom Building Project, TMK: 8-5-002: 018; 8-5-015: 001, Waianae, Oahu

Thank you for transmitting the subject document requesting our review and comments.

Since the construction of the proposed classroom building is intended to serve students that are already enrolled at the school, we have determined that the project will not adversely impact Farrington Highway.

If you have any questions, please contact Ronald F. Tsuzuki, Head Planning Engineer, Highways Division, at 587-1830.

Very truly yours,

RODNEY K. HARAGA
Director of Transportation

c: DAGS, OEQC
MEMORANDUM

TO: The Honorable Rodney K. Haraga, Director
Department of Transportation

FROM: Russ K. Saito, State Comptroller

SUBJECT: Waianae High School
Eight Classroom Building Project
Draft Environmental Assessment (EA)

Thank you for the letter dated April 19, 2004, providing comments on the Draft (EA) for the subject project. We agree with your department's determination that the project will not adversely impact Farrington Highway.

If you have any questions, please call me at 586-0400 or have your staff call Ms. Gaylyn Nakatsuka of the Public Works Division at 586-0487.

c: Mr. Ronald A. Sato, SSFM
   Mr. Walter Kobayashi, DAGS-PWD, PMB
March 8, 2004

Harold Sonomura, Acting Public Works Administrator
Department of Accounting and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Attention: Ralph Morita

Dear Mr. Sonomura:

Subject: Draft Environmental Assessment (EA)
Waianae High School 8-Classroom Building

We have the following comments to offer:

Sustainable building techniques: Please consider applying sustainable building techniques presented in the "Guidelines for Sustainable Building Design in Hawaii." In the final EA include a description of any of the techniques you will implement. Go to our website at http://www.state.hi.us/health/oerc/guidance/sustainable.htm or contact our office for a paper copy of the guidelines.

Figures: Figure 1.5, The Shoreline Survey Boundary Map, is too small in scale. In the final EA enlarge this map so the details are clearly discernible.

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

Sincerely,

GENEVIEVE SALMONSON
Director

c: Ron Sato
MEMORANDUM

TO: Ms. Genevieve Salmonson, Director
    Office of Environmental Quality Control
    Department of Health

FROM: Ernest Y. W. Lau
       Public Works Administrator

SUBJECT: Waianae High School
         Eight-Classroom Building Project
         Draft Environmental Assessment (EA) Comments

Thank you for the letter dated March 8, 2004, providing comments on the Draft EA for the subject project.

Sustainable building techniques, such as those identified in your guidelines, will be considered for this project as appropriate. However, the feasibility and decision to incorporate such techniques will be determined later during the project's design phase, and thus cannot be identified now in the Final EA.

The purpose for Figure 1.5 (Shoreline Survey Map) was to document, via the approved map, that the shoreline survey has been completed for this project. Details of the certified shoreline in relation to the new classroom building site are more clearly shown and identifiable on Figures 2.4 and 2.5.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo
c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DARGS-PW, PMB
April 6, 2004

Ronald A. Sato, AICP
SSFM International, Inc.
501 Summer Street, Suite 620
Honolulu, HI 96817

RE: Request for Comment and Recommendation on Proposed Waianae High School Eight Classroom Building Project, O'ahu, TMKs: 8-5-002: 018 and 8-5-015:001

Dear Ronald A. Sato,

The Office of Hawaiian Affairs is in receipt of your March 4, 2004, request for comments on the above project. We offer the following comments on this project.

Because buried cultural sites and iwi have been found in sites on either side of Waianae High School, the possibility that such sites could be found within the campus is likely. Therefore, OHA requests that an archaeological inventory survey with subsurface testing be conducted prior to any ground disturbance. Subsequent to the survey, if necessary, a mitigation and preservation plan should be prepared. If an archaeological inventory survey is not conducted, OHA requests that a cultural and archaeological monitor be on site during all ground disturbing activities.

OHA will further rely on assurances from the developer that should iwi or Native Hawaiian cultural or traditional deposits be found during ground disturbance or excavation, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

We note that the Draft EA and its Cultural Impact Assessment (Appendix C) did not list any consultations with members of the O'ahu Island Burial Council or local Hawaiian Civic Clubs, who may have been able to give a different perspective and more information on the history of the area.

OHA further hopes that continued traditional access to fishing areas and to limu and salt gathering areas will not be impeded, as is stated in the Draft EA.
Thank you for the opportunity to comment. If you have further questions, please contact Heidi Guth at 594-1962 or e-mail her at heidig@oha.org.

Sincerely,

Clyde W. Namu'o
Administrator

Cc: Office of Environmental Quality Control
    Department of Accounting and General Services
MEMORANDUM

TO: Mr. Clyde W. Namu'o, Administrator
Office of Hawaiian Affairs

FROM: Harold Sonomura
Acting Public Works Administrator

SUBJECT: Waianae High School
Eight Classroom Building Project
Draft Environmental Assessment Comments

Thank you for the letter dated April 6, 2004, providing comments on the Draft EA for the subject project.

The assessment of historic and archaeological resources along with the cultural impact assessment study conducted for this project determined that no historic properties would be affected since the area has been significantly disturbed by prior development of the existing classroom building and adjacent parking lot. This information was reviewed by the State Historic Preservation (SHPD) which came to a similar determination as indicated in their response letter dated March 19, 2004.

As a result, an archaeological inventory survey with subsurface testing is not warranted along with a mitigation and preservation plan. An archaeological or cultural monitor is also not required for this project based upon the assessment results and review by the SHPD. As indicated in the Draft EA, a soils study determined that the site is underlain by fill and coral. Furthermore, the new classroom building is planned to be constructed on top of about four feet of fill material since the finished grade elevation will need to be raised. In the event subsurface human remains or cultural deposits are encountered during construction activities, all work would stop immediately, the SHPD notified, and procedures followed in accordance with applicable laws.
Mr. Clyde W., Namuo
(P)1139.4
Page 2

The cultural assessment included consultation efforts with representatives of the Waianae community and government agencies who may have knowledge and/or concerns about traditional cultural practices related to the project area. This outreach effort did include members of the Oahu Island Burial Council and Hawaiian civic clubs or organizations. Continued access to shoreline areas will not be impacted by the project.

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

GN:mo
c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PWD, PMB
March 17, 2004

Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:


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

Our comments of November 25, 2003, which are included in the assessment, are still applicable.

If you have any questions, please contact Joseph Kaakua at 748-5442.

Very truly yours,

[Signature]
K. Sivina
CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Ralph Morita, Department of Accounting and General Services
    Office of Environmental Quality Control

Pure Water . . . our greatest need – use it wisely
Mr. Clifford S. Jamile, Manager & Chief Engineer  
Board of Water Supply  
City and County of Honolulu  
630 South Beretania Street  
Honolulu, Hawaii 96813  

Dear Mr. Jamile:  

Subject: Waianae High School  
Eight Classroom Building Project  
Draft Environmental Assessment (EA)  

Thank you for the letter dated March 17, 2004, providing comments on the Draft (EA) for the subject project.  

We confirm that your pre-assessment consultation comments received and addressed in the Draft EA are still applicable since they predominantly concern design requirements. Coordination with your department will be conducted by our design consultant during the design phase of the project to address the water allocation, system design requirements, and payment of the required Water System Facilities Charges when water is made available.  

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.  

Sincerely,  

[Signature]  
Harold Sonomura  
Acting Public Works Administrator  

GN:mo  
c: Mr. Ronald A. Sato, SSFM  
Mr. Walter Kobayashi, DARGS-PWD, PMB
March 11, 2004

Mr. Ronald A. Sato, AICP, Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Draft Environmental Assessment
Waianae High School Eight-Classroom Building

We have reviewed the subject Draft Environmental Assessment and have determined that the subject project will have no impact on the projects and programs of the Department of Community Services. We appreciate the opportunity to provide these comments. Questions regarding this matter may be directed to Keith Ishida at 527-5092.

Sincerely,

[Signature]

MICHAEL T. AMII
Director

MTA:dk

cc: Ralph Morita, Department of Accounting and General Services
Office of Environmental Quality and Control
Mr. Michael T. Amii, Director  
Department of Community Services  
City and County of Honolulu  
715 South King Street, Suite 311  
Honolulu, Hawaii 96813  

Dear Mr. Amii:  

Subject: Waianae High School  
Eight Classroom Building Project  
Draft Environmental Assessment (EA)  

Thank you for the letter dated March 11, 2004, providing comments on the Draft (EA) for the subject project. We confirm your determination that the project will have no impact on the projects and programs of your department.  

If you have any questions, please have your staff call Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.  

Sincerely,  

Harold Sonomura  
Acting Public Works Administrator  

GN:mo  
c: Mr. Ronald A. Sato, SSFM  
Mr. Walter Kobayashi, DAGS-PWD, PMB
March 12, 2004

SSFM International, Inc.  
501 Summer Street, Suite 620  
Honolulu, Hawaii 96817

Attention: Mr. Ronald A. Sato, AICP

Gentlemen:

Subject: Draft Environmental Assessment  
Waianae High School Eight Classroom Building Project

Thank you for the opportunity to review and comment on the Draft Environmental Assessment.

The Department of Facility Maintenance has no comment on this project.

Should you have any questions, please contact me at 692-5054.

Very truly yours,

Larry Leopardi, P.E.  
Director and Chief Engineer

cc: Department of Accounting and General Services  
Office of Environmental Quality and Control
Mr. Larry Leopardi, P.E., Director & Chief Engineer
Department of Facility Maintenance
City and County of Honolulu
1000 Uluohia Street
Kapolei Hale, Suite 215
Kapolei, Hawaii 96707

Dear Mr. Leopardi:

Subject: Waianae High School
        Eight-Classroom Building Project
        Draft Environmental Assessment (EA)

Thank you for the letter dated March 12, 2004, on the Draft EA for the subject project. We note your department has no comments on the project at this time.

If you have any questions, please have your staff contact Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

[Signature]
HAROLD SONOMURA
Acting Public Works Administrator

GN:jp

c: ✓ Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PW, PMB
Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Draft Environmental Assessment (EA)
Waianae High School Eight-Classroom Building
Tax Map Keys 8-5-2: 18 and 8-5-15: 1

This is in response to your letter dated March 4, 2004, requesting comments on the Draft EA for a new classroom building. We have the following comments:

Zoning Regulations and Permits Branch

1. Page 30 of the EA states that a Shoreline Setback Variance (SV) will be required since some grading activities will be within the setback area. A copy of the certified shoreline survey must be submitted with the Special Management Area Use Permit/SV application to verify that a Shoreline Setback Variance will also be required.

2. The Final EA should include the types of Best Management Practices which will be implemented during grading and construction of the new building and other improvements.

3. Page 83 of the EA states that grading activities should be minimal. The Final EA should describe how much (in cubic yards) clearing, grubbing, and grading will be done prior to construction of the building.

Please contact Dana Teramoto of our staff at 523-4648 if you have any questions regarding the above comments.
Subdivision Branch

The Draft EA states that project design will comply with applicable flood district requirements of the LUO. No further comments.

Wastewater Branch (WWB)

1. We have no objection to the proposed project. The applicant proposes to construct a new eight-classroom building on the campus of Waianae High School.

2. A Sewer Connection Application has been approved for the project on November 25, 2003 (2003/SCA-0659).

Please contact Scott Gushi at 523-4886, should you have any questions regarding the WWB comments.

Civil Engineering Branch (CEB)

A drainage report may be required at a later date.

Please contact Don Fujii at 527-7320, should you have any questions regarding the CEB comments.

Policy Planning Branch (PPB)

1. On pages 6 and 79, the draft EA makes incorrect statements regarding the Waianae Sustainable Communities Plan (SCP). The correct information is as follows:

   a. Not all DP areas were renamed "Sustainable Communities Plans"; two are still called Development Plans.

   b. The site is designated "Rural Residential" on the SCP Land Use Map, Open Space Map, and Public Facilities Map, not "Public Facility" as the draft EA states. What the Public Facilities Map shows is a school symbol for the school site.
Regarding the draft EA's section 7.4.2, Coastal Lands, the proposed 8-classroom building project is consistent with the prohibition on new urban or suburban type development makai of Farrington Highway. It would not be a totally new development but rather an additional classroom building on the school's existing campus. Also, the SCP officially recognizes this project, in Table 4-3.

3. We also recommend these minor corrections:

a. The Tsunami Inundation section on page 39 should include three paragraphs from page 56, and should cover both the plan to raise the building above the surrounding ground level and the proposed modifications to the shoreward berm that are needed to allow fire trucks to pass.

b. The list of communities on the Waianae coast (page 11) should include Waianae and not include Makua, which has no permanent habitations and may not qualify as a true community.

c. A discrepancy on the height of the earth berm needs to be corrected. Page 19 should be rewritten to say "This berm is about 5 feet above ground level", and page 39 should be rewritten to say "the height of this mound is about 15 feet above mean sea level".

4. The EA and the development of the classroom building should consider the following:

a. The planting of landscaping with drought tolerant, minimum care plants may add to the livability of the area around the building site. The outdoor eating area has the potential to become an attractive, comfortable gathering place for students. Features that may help to make this a special place for lunch and noon-time breaks include such features as an overhead canopy or umbrellas to provide shade, an elevated eating area to take advantage of coastal views, floor colors and patterns to provide visual
contrast, and plantings or planters to enliven the area and buffer the adjacent driveway.

Please contact Mike Watkins at 523-4406, should you have any questions regarding the PPB comments.

Thank you for the opportunity to review the Draft EA.

Sincerely yours,

[Signature]

ERIC G. CRISPIN, AIA
Director of Planning
and Permitting

EGC:pl

cc: Dept. of Accounting & General Svcs. (Ralph Morita)
OEQC
Mr. Eric G. Crispin, AIA, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Crispin:

Subject: Waianae High School
        Eight-Classroom Building Project
        Draft Environmental Assessment (EA)

Thank you for the letter dated April 5, 2004, providing comments on the Draft EA for the subject project. We offer the following responses to the comments received from your branches.

Zoning Regulations and Permits Branch

A certified shoreline survey map was included in the Draft EA under Figure 1.5. A copy of this shoreline survey map will be included in the Special Management Area Use Permit and Shoreline Setback Variance application.

Section 3.1 did identify some of the types of best management practices involving erosion control measures that could be implemented during grading and construction activities. However, the actual measures implemented would be developed during the project's design and development of construction plans. These site specific measures would also be included in a NPDES permit obtained for the project. The Final EA will be revised to include more examples of the types of controls that could be included in the project's design.

An estimate, in cubic yards, of the amount of clearing, grubbing, and grading conducted during the project's construction will be included in the Final EA.

Subdivision Branch

We confirm that the project's design will comply with applicable flood district requirements under the Land Use Ordinance, and your branch has no further comments.
Wastewater Branch

We note this branch has no objections to the project, and that a Sewer Connection Application has already been approved.

Civil Engineering Branch

Appropriate coordination will be conducted with your branch during the project's design to address drainage requirements and the need for a drainage report.

Policy Planning Branch

Revisions to the wording will be included in the Final EA to clarify that two areas still have Development Plans, along with the school site symbol on the Public Facilities Map.

The comments on Section 7.4.2 of the Draft EA are noted.

The section on tsunami inundation will be revised as appropriate in the Final EA. The listing of communities on the Waianae coast will be revised for Makua. Revisions will be made to the wording of the height used to describe the earth berm.

The comments regarding the use of drought tolerant landscaping and other design features to enhance the outdoor eating area will be taken into consideration.

If you have any questions, please have your staff contact Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

HAROLD SONOMURA
Acting Public Works Administrator

GN:jp

C:  Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PW, PMB
Mr. Ronald A. Sato, AICP  
SSFM International, Inc.  
501 Sumner Street, Suite 620  
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School Eight-Classroom Building Project

In response to your March 4, 2004 letter, we have reviewed the draft environmental assessment for the subject project. The following comments are the result of this review:

1. Section 2.1 PROJECT LOCATION AND VICINITY makes reference to Farrington Highway, Ala Akau Street and Kaulawaha Road. These roads should be labeled on Figure 2.1.

2. In Section 7.5 CITY AND COUNTY OF HONOLULU ZONING DISTRICT, it is stated that based on the Land Use Ordinance’s (LUD) off-street parking requirements, 39 additional stalls would be required for the project. To minimize the potential off-site impacts to the surrounding areas, the minimum LUD off-street parking requirements should be met.

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

Sincerely,

CHERYL D. SOON  
Director

cc: Mr. Ralph Morita, Department of Accounting and General Services  
Ms. Genevieve Salmonson, Office of Environmental and Quality Control
Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Waianae High School
Eight-Classroom Building Project
Draft Environmental Assessment (EA)

Thank you for the letter dated April 5, 2004, providing comments on the Draft EA for the subject project.

Figure 2.1 (Project Location and Vicinity Map) will be revised for the Final EA to label Farrington Highway, Ala Akau Street, and Kaulawaha Road.

We understand that 39 off-street parking stalls are required per the Land Use Ordinance. Under this project, we intend to relocate all parking stalls displaced by the eight-classroom building to other locations on the school site. We do not intend to increase the total number of parking stalls at the school because of site limitations. Therefore, we will be requesting a waiver from the off-street parking requirements at a later date.

If you have any questions, please have your staff contact Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

ERNEST Y. W. LAU
Public Works Administrator

GN:jp
c: ✓ Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PW, PMB
March 30, 2004

Mr. Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School
       New Eight-Classroom Building
       Draft Environmental Assessment (DEA)

We received your letter dated March 4, 2004, requesting our review and comments on the above-mentioned DEA.

A copy of our letter to you dated November 25, 2003, is attached for your reference. The Honolulu Fire Department has no additional comments.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,

ATTILIO K. LEONARDI
Fire Chief

AKL/LT: bh
Attachment

cc: Mr. Ralph Morita, State of Hawaii, Department of Accounting and General Services
    Ms. Genevieve Salmonson, Director, Office of Environmental Quality Control
November 25, 2003

Mr. Ronald A. Sato, AICP
Senior Project Planner
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Subject: Waianae High School
   New Eight-Classroom Building
   Pre-Assessment Consultation for Draft Environmental Assessment

We received your letter dated November 10, 2003, requesting our comments on the above-mentioned project.

The Honolulu Fire Department (HFD) requires that the following be complied with:

1. Provide a private water system where all appurtenances, hydrant spacing, and fire flow requirements meet Board of Water Supply standards.

2. Provide a fire department access road within 150 feet of the first floor of the most remote structure. Such access shall have a minimum vertical clearance of 13 feet 6 inches, be constructed of an all-weather driving surface complying with Department of Transportation Services (DTS) standards, capable of supporting the minimum 60,000-pound weight of our fire apparatus, and with a gradient not to exceed 20%. The unobstructed width of the fire apparatus access road shall meet the requirements of the appropriate county jurisdiction. All dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved turnaround having a radius complying with DTS standards.
3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Lloyd Rogers of our Fire Prevention Bureau at 831-7778.

Sincerely,

[Signature]

ATTILIO K. LEONARDI
Fire Chief

AKL/SK:bh
Mr. Attilio K. Leonardi, Chief
Honolulu Fire Department
City and County of Honolulu
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Chief Leonardi:

Subject: Waianae High School
Eight-Classroom Building Project
Draft Environmental Assessment (EA)

Thank you for the letter dated March 30, 2004, providing comments on the Draft EA for the subject project. We confirm your department has no additional comments to offer from that provided in your November 25, 2003, letter.

If you have any questions, please have your staff contact Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

[Signature]

HAROLD SONOMURA
Acting Public Works Administrator

GN:jp
c: Mr. Ronald A. Sato, SSFM
   Mr. Walter Kobayashi, DAGS-PW, PMB
March 29, 2004

Mr. Ronald A. Sato, AICP
SSFM International, Inc.
501 Sumner Street, Suite 620
Honolulu, Hawaii 96817

Dear Mr. Sato:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Waianae High School Eight-Classroom Building Project.

In addition to what is already stated in the document, as long as the contractor secures all tools and equipment that are stored on site, this project should have no significant impact on the services to be provided by the Honolulu Police Department.

If there are any questions, please call Captain Gregory Lefcourt of District 8 at 692-4253 or Ms. Carol Sodetani of the Support Services Bureau at 529-3658.

Sincerely,

LEE D. DONOHUE
Chief of Police

By
KARL GODSEY
Assistant Chief of Police
Support Services Bureau

cc: OEQC
Mr. Ralph Morita (DAGS)
MAY 7 2004

Mr. Lee D. Donohue, Chief
Police Department
City and County of Honolulu
801 South Beretania Street
Honolulu, Hawaii 96813

Dear Chief Donohue:

Subject: Waianae High School
Eight-Classroom Building Project
Draft Environmental Assessment (EA)

Thank you for the letter dated March 29, 2004, providing comments on the Draft EA for the subject project. The contractor will take appropriate measures to secure all tools and equipment that are stored on the project site during construction.

If you have any questions, please have your staff contact Ms. Gaylyn Nakatsuka of the Planning Branch at 586-0487.

Sincerely,

HAROLD SONOMURA
Acting Public Works Administrator

GN:jp

c: Mr. Ronald A. Sato, SSFM
    Mr. Walter Kobayashi, DAGS-PW, PMB
APPENDIX C

CULTURAL IMPACT ASSESSMENT
CULTURAL IMPACT ASSESSMENT FOR THE PROPOSED STATE OF HAWAI'I DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES SINGLE STORY EIGHT CLASSROOM BUILDING COMPLEX AT WAI'ANAE HIGH SCHOOL IN THE DISTRICT OF WAI'ANAE, ISLAND OF O'AHU

(TMK 8-5-02)

by

Auli'i Mitchell, B. A.

and

Hallett H. Hammatt, Ph. D.

Prepared for
SSFM International, Inc.
501 Sumner Street
Honolulu, HI. 96817

by
Cultural Surveys Hawai'i, Inc.
January 2004
TABLE OF CONTENTS

I. INTRODUCTION ........................................................................................................ 1
   A. Project Background ......................................................................................... 1
   B. Scope of Work ............................................................................................... 4
   C. Methods ........................................................................................................ 4
   D. Natural Setting .............................................................................................. 5

II. HISTORICAL BACKGROUND ............................................................................. 8
    A. Traditional Accounts and Early Historic Period ........................................... 8
    B. Mid to Late 1800s ....................................................................................... 10
    C. 1900s to Present ......................................................................................... 14

III. PREVIOUS ARCHAEOLOGICAL RESEARCH .................................................... 17

IV. COMMUNITY CONSULTATIONS ....................................................................... 23

V. SUMMARIES OF KAMA‘AINA INTERVIEW ....................................................... 27

VI. TRADITIONAL CULTURAL PRACTICES ......................................................... 29
    A. Gathering for Plant Resources .................................................................... 29
    B. Marine Resources ....................................................................................... 29
    C. Historic Properties ..................................................................................... 29
    D. Burials .......................................................................................................... 29
    E. Trails ............................................................................................................ 30

VII. SUMMARY AND RECOMMENDATIONS ...................................................... 32
     A. Summary ..................................................................................................... 32
     B. Recommendations ...................................................................................... 32

VIII. BIBLIOGRAPHY .............................................................................................. 33
LIST OF FIGURES

Figure 1 USGS Map Showing Project Location Area .......................................................2
Figure 2 TMK Map Showing Project Area .......................................................................3
Figure 3 Photograph Showing The Proposed Project Area Makai Of Portables 26 & 27 ..............6
Figure 4 Photograph Showing Project Area Makai Of Building CC Adjacent To School Parking Lot .................................................................................................................7
Figure 5 1884 Jackson Map Showing Project Area and Cultivated Lands along Kaupuni Stream ..................................................................................................................................16
Figure 6 USGS Map Showing Locations Of Previous Archaeological Research ......................22
Figure 7 Trails Of Leeward O'ahu as described by 'I'; Map by Paul Rockwood ......................31
LIST OF TABLES

Table 1 Previous Archaeological Studies in Wai‘anae Ahupua‘a .................................................. 18
Table 2 Community Contact and Comments ............................................................................. 24
I. INTRODUCTION

A. Project Background

Cultural Surveys Hawai‘i, Inc. (CSH) was contracted by SSFM International, Inc., to conduct a Cultural Impact Assessment for the proposed single story eight-classroom building complex at Wai‘anae High School, in the district of Wai‘anae, Island of O‘ahu. This complex is a project of the State of Hawai‘i Department of Accounting and General Services (DAGS) (Figures 1 and 2). The new building will consist of a total floor area of approximately 13,370 square feet. This complex is planned to accommodate a food service lab, biology/marine science classroom, chemistry science classroom, five general classrooms, a special education room, faculty center, and office space for faculty and student services.

The function of this Cultural Impact Assessment is to document and evaluate the effects the planned redevelopment may have on native Hawaiians or any other concerned ethnic group in terms of their culture and their rights to practice traditional customs. The State Constitution, state laws and courts “require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups” (in Office of Environmental Quality Control, Guidelines for Assessing Cultural Impacts, Adopted by the Environmental Council, State of Hawai‘i, November 19, 1997).

Under Act 50, Chapter 343, Hawai‘i Revised Statutes, 2000, the following protocol are encouraged when preparing a Cultural Impact Assessment.

1) Identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua‘a;

2) Identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;

3) Receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;

4) Conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;

5) Identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and

6) Assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.
Figure 1 USGS Map Showing Project Location Area.
Figure 2 TMK Map Showing Project Area
B. Scope of Work

Because of the previous impact of development in the immediate vicinity, we are undertaking a relatively modest scope of work. This scope of work is suggested to be appropriate but it should be noted that this proposed study will not follow Office of Environmental Quality Control “Guidelines for Assessing Cultural Impacts,” which emphasizes the carrying out of formal interviews and an ahupua'a-wide treatment. We feel that substantial investment in identifying informants and carrying out formal interviews is not warranted for this particular project. We regard the task as primarily a matter of addressing existing laws and the concerns of organizations such as the Office of Hawaiian Affairs and the O‘ahu Island Burial Council in an appropriate and effective manner.

The scope of work includes:

1) Examination of historical documents, Land Commission Awards, and historic maps, with the specific purpose of identifying traditional Hawaiian activities including gathering of plants, animal and other resources or agricultural pursuits as may be indicated in the historic record to develop a cultural landscape background study.

2) A review of the existing archaeological information pertaining to the sites in the vicinity as they may allow us to reconstruct traditional land use activities and identify and describe the cultural resources, practices and beliefs associated with the parcel and identify present uses, if appropriate.

3) Limited consultations with kūpuna knowledgeable regarding the project area vicinity.

4) Preparation of report on items 1-3 summarizing the information gathered related to traditional practices and land use. The report will assess the impact of the proposed action on the cultural practices and features identified.

C. Methods

Historical documents, maps and existing archaeological information pertaining to the sites in the vicinity of this project were researched at the State Historic Preservation Division library, Cultural Surveys Hawai‘i library, and the University of Hawai‘i’s Hamilton library. The Office of Hawaiian Affairs, O‘ahu Island Burial Council, and members of other community organizations were contacted in order to identify potentially knowledgeable individuals with cultural expertise and or knowledge of the study area and the surrounding vicinity. A discussion of the consultation process can be found in the following section on “Community Consultations”. Please refer to Table 2 for a complete list of individuals and organizations contacted. An informal interview with Mr. Dino Pachekko was conducted on December 31, 2003 at the proposed project area. A telephone interview was conducted with Mr. William Áila on November 25, 2003.
D. Natural Setting

The project area of this study consists of an area *makai* (seaward) of the present portable buildings P-26 and P-27 and a parking lot *makai* of the present CC Building (Figures 3 & 4). Generally, the Waiʻanae District coastal areas are characterized by white sand beaches with low dunes and narrow back shore dunes (Cordy 1998). In addition, there are localized areas of old, uplifted coral reefs and limestone flats. Much of the coastal area has been disturbed due to historic and modern development. Most of the narrow back dunes have been graded.

The soil in the project area consists of coral or cemented calcareous sand. Elevations range from sea level to approximately 11 feet. The annual rainfall amounts to 18 to 40 inches. Vegetation along this arid coast is sparse (Foothed et. al. 1972:29). With 20 inches or less of rain annually, only the hardiest plants adapted to the coastal environments can thrive in this zone. The vegetation is typical of dry seashore environments in Hawaiʻi and is dominated by alien species. Indigenous species include *hau* (*Hibiscus tiliaeus*), *kou* (*Cordia subcordata*), *kamani* (*Calophyllum inophyllum*), *naupaka* or *naupaka* kahakai (*Scaevola sericea*), pāʻu o Hiʻaka (*Jacquemontia ovalifoia sandwicensis*), the native beach morning glory or pōhuhue hue (*Ipomea pes-caprae*) and the coconut or *niu* (*Cocos nucifera*). Introduced species found bordering the Farrington Highway include sea grape (*Coccoloba uvifera*), kiawe trees (*Prosopis pallida*), Madagascar olive trees (*Noronhia emarginata*), and *koa* haole (*Leucaena leucocephala*) (McGuire 2001:8).
Figure 4 Photograph Showing Project Area *Makai* Of Building CC Adjacent To School Parking Lot
II. HISTORICAL BACKGROUND

The present study areas is located on the makai end of Wai‘anae High School within Wai‘anae Ahupua‘a in the district of Wai‘anae. Clues to the history of land use and activity within the ahupua‘a (land division) — and specifically within the study area — are found in records including journals, government records, scholarly studies, memoirs, archaeological studies, maps historic photographs, and oral histories. The earliest records present glimpses of landmarks and events within the general Wai‘anae area, especially around the coastal settlement above Pōka‘i‘ Bay. However, by the middle decades of the nineteenth century, it is possible to focus more precisely on the study area as documentation becomes more abundant and specific.

A. Traditional Accounts and Early Historic Period

The Hawaiian traditions centered on Wai‘anae further suggest the area significance and association with the ali‘i (royalty) in prehistoric times. The district is a focus in the mythological cycles of Maui, Kamapua‘a, and Kamohoali‘i. The demigod Maui and his brothers were said to have been born in Wai‘anae, and it was here that Maui learned the secret of making fire for mankind. Kamakau (1870) enumerates, among the famous locales in Wai‘anae, the cave in which Hina (moon goddess and mother of Maui) made her tapa (barkcloth), the fishhook, Mānaia Kalani (with which Maui attempted to unite the Hawaiian Islands), the snare for catching the sun (which Maui used to advantage on Haleakalā), and the place where Maui’s adzes were made. The pig demi-god, Kamapua‘a, battled with the giant man-dog Kūlūloa (after whom the heiau in Wai‘anae is named) and raised the taro patches of Wai‘anae Valley. The people caught him, tied him up, and were preparing to sacrifice him when his many supernatural bodies swept over the plains, devouring the men of Wai‘anae and sending the rest fleeing in terror. Pele’s older and favorite brother, Kamohoali‘i, the shark god, became enamored with a maiden of the Wai‘anae coast and begot a half-man/half-shark child who devoured many people before being captured and killed.

The pioneering nineteenth century Hawaiian historian Samuel Kamakau (1992: 134) recorded the oral traditions that associated some of the Wai‘anae heiau to prominent ali‘i, “At Wai‘anae [Kahahana, late eighteenth century O‘ahu ruling chief] restored the heiau of Ka-mohoali‘i…”

Take the story of Kavelo when he sailed for Kaua‘i to make war. He set a tabu (prohibition) over the heiau at Puehu at Wai‘anae, and at the end of the sacrifice ordered that the wood of the paekumu (taboo enclosure), both the fence and the images themselves, be used for firewood for the expedition to Kaua‘i. (Kamakau, 1992:203)

By the time of the first contact with European expeditions during the latter eighteenth century, Wai‘anae Valley appeared to remain the primary place of settlement within the Wai‘anae district. Captain George Vancouver sailing off the southwest coast of O‘ahu in 1792, noted:
From the commencement of the high land to the westward of Opooroh (pu'uloa) was...one barren rocky waste, nearly destitute of verdure, cultivation or inhabitants, with the little variation all the way to the west point of the island. Not far from the south-west point is a small grove of shabby cocoanut trees, and along those shores are a few straggling fishermen's huts. Nearly in the middle of this side of the island is the only village [i.e. at Wai'anae above Pōka'i Bay] we had seen westward from Opooroh. In its neighborhood the bases of the mountains retire further from the sea-shore, and a narrow valley, presenting a fertile cultivated aspect, seems to separate and wind some distance through the hills. The shore here forms a small sandy bay. On its southern side, between the two high rocky precipices, in a grove of cocoanut and other trees, is situated the village, and in the center of the bay, about a mile to the north of the village, is a high rock (Mauna Lahilahi), remarkable for its projecting from a sandy beach...[Vancouver in Sterling and Summers 1978:67-68].

The coconut grove above Pōka'i Bay observed by Vancouver was not insignificant in the Hawaiian consciousness; it was recognized as the “largest and best-known coconut grove on O'ahu, famed in chants and songs” (Pukui 1983:160):

Aloha ʻi ʻO Wai'anae  
He malu i ka ulu niu  
Ulu niu kaulana o Pōka'i  
He nani ke 'ika aku.  

Beloved is Wai'anae  
In the shade of the coco palm grove  
Famous coco palms of Pōka'i  
Beautiful to see. [Pili'ilili'au and Kaleiwahea n.d.]

The latter eighteenth century also saw the involvement of Wai'anae Ahupua'a and its population in the political changes impelled by the struggle of ali'i from other islands for political control and conquest of O'ahu. The Maui king Kehekili invaded O'ahu c. 1783, vanquishing the O'ahu chiefs in a series of battles that culminated in Wai'anae:

Pupuka [an O'ahu chief] rallied the retainers of the chiefs of Kona, 'Ewa, Wai'anae, Waialua, and Ko'olau at Kawaiwi, a stronghold between Wai'anae and Makaha, where many died of starvation or were flung over the precipice because of famine, and many perished [Kamakau 1992:139-140].

In 1794, Ka'eo-kī-lani recruited the “warriors of Waialua and Wai'anae” to make war on his nephew Ka-lani-kō-pule, then ruler of O'ahu (Kamakau 1992:168). By December 1794 Ka'eo-kī-lani had been killed and his forces were defeated. Kalani-kō-pule would himself be deposed the following year when the invading Hawai'i Island forces of Kamehameha prevailed at the Battle of Nu'uanu in April 1795. Although apparently Wai'anae was not itself the site of major conflicts associated with Kamehameha's conquest of O'ahu, traditions record it as the refuge where large numbers of O'ahu residents resettled after fleeing from the Hawai'i Island invaders.
In 1796, Kamehameha would himself come to Wai‘anae where his fleet of eighty double haul canoes stopped on their way to invade Kaua‘i. "The fleet went on to the Wai‘anae and the war god [Ko-ka‘ili-moku] was carried ashore that evening" (Kamakau 1992:173). Kamakau records that the fleet departed Wai‘anae before midnight, but Wai‘anae tradition maintains that Kamehameha presumption so angered the Wai‘anae gods that they sent the storm which caused the disastrous end of his Kaua‘i expedition. That setback notwithstanding, Kamehameha’s ascendency on O‘ahu in the 1790s would have immediate consequences for Wai‘anae during the decades of the next century. Additionally, the isolation of the ahupua‘a would not protect it from the economic and social pressures impelled by the growing presence of western missionaries, settlers and entrepreneurs on O‘ahu.

B. Mid to Late 1800s

The Hawaiian Islands began exporting sandalwood to the Orient shortly after 1800 and the commerce flourished until supply dwindled in the mid-1830s. Trade in sandalwood was the strict monopoly of the ali‘i beginning with Kamehameha. At the height of the sandalwood boom, Kamehameha was buying foreign ships, including six vessels between 1816 and 1818, to transport his own wood to the Orient (Kuykendall 1965:87). When Kamehameha bought the schooner Columbia in 1817, it was piled with sandalwood from Kaua‘i and from the districts of Waimea and Wai‘anae on O‘ahu (Kuykendall, 1965:88). Peter Comeny, the chief officer on the Columbia, alludes to Wai‘anae’s perhaps more marginal involvement in the sandalwood trade on O‘ahu. In an account of a voyage in March 1818 from Honolulu to Waimea Bay (O‘ahu) Comeny (1896:89-90) reported:

Next day we sailed for Whymea bay, on the west end of the island, to get another cargo of wood. In our passage we touched at Wyeni [Wai‘anae], and took on board some wood and hogs. We lay here for a few days, and then sailed along the shore for Whymea...where we took on board a full cargo of wood in thirty-six hours – more than 200 canoes employed in bringing it off, day and night.

After Kamehameha’s death in 1819, Li‘holiho (Kamehameha II) allowed his chiefs to share in the sandalwood trade, resulting in an unrestrained demand on the stocks of the wood and upon the commoners who did the harvesting. “Traders’ records from Kamehameha’s last years show several important ali‘i trafficking in sandalwood on their own, including Kalaimoku, Cox, Boki, Ka‘ahumanu, and some others” (Kirch and Sahlins 1992:59). Among these ali‘i, Boki Kama‘ule‘ule was one of Kamehameha’s chiefs who became governor of O‘ahu. Diaries and journals of the western entrepreneurs on O‘ahu record Boki’s travels to and from Wai‘anae and the unfolding of the sandalwood trade there. Don Francisco de Paula Marin, who had arrived in the islands in the 1790s, noted in his diary Boki’s departure from Honolulu to Wai‘anae aboard the schooner Paula on April 18, 1820. Three days later, on April 21, Boki returned “with a cargo of taro, dogs & hogs from Guanalanae [Wai‘anae]” (Gast and Conrad 1973:239). During succeeding months, until May 1822, Marin recorded four more voyages by Boki to and from Wai‘anae, presumably to procure additional goods from the Leeward coast. In December 1829 Boki sailed to the New Hebrides in search of sandalwood but he and his ship were lost at sea. Boki had appointed his favorite wife, Lili‘ha, governor of O‘ahu during his absence. She continued in that position and also retained control of Wai‘anae after his death had been reported.
More detailed accountings of Wai‘anae role in the sandalwood trade during the 1820s appear in the journal of Stephen Reynolds, a clerk for the Honolulu merchant William French. French had settled in Honolulu in the 1820s, becoming involved in business enterprises throughout the islands. In 1828, he was among a company of foreign residents who converted a Honolulu sugar mill into a rum distillery. Unfortunately for the investor:

...by this time the Queen Regent Ka‘ahumanu and most of the powerful chiefs had become Christians and had taken a strong stand in favor of temperance. A kapu was placed upon the business of making rum; the missionaries, who had the only ox-carts in the village (Honolulu), refused to allow them to be used for carrying cane to the mill; and Ka‘ahumanu caused the cane fields to be destroyed. This was about 1829. The foreign residents were greatly enraged and one of them, William French, afterwards accused the missionary Rev. Hiram Bingham of having made him lose $7,000 through the failure of the distillery (Kuykendall 1967:173).

Other investments undertaken by French were more successful and by the 1830s he was a leading merchant in the islands.

Reynolds’ journal suggests how haphazard the collection of the wood was. On May 10, 1824 the vessel Water-witch went to Wai‘anae; it returned to Honolulu on May 12 and, Reynolds recorded, “got no wood, nor way any” (King 1989:29). Two months later, the Prince-Regent “sailed for Wainai after wood” and returned with “160 piculs” (King 1989:44). Reynolds’ journal contain no further record of Wai‘anae sandalwood until August 5, 1827 when he noted: “Fine sand‘wood on board & sailed for Wainai” (King 1989:193). William French himself was in Wai‘anae in November 1827, awaiting “goods” which were shipped to him there, perhaps in payment for a stock of sandalwood (King 1989:203). On January 17, 1828 Boki “went to Wainai to weigh Sandalwood...”, and later that month, on the 28th, Reynolds reported on “Hunnewell [a trader] weighing Tax wood from Wainai” (King 1989:211-212). The next month, February 1828, Reynolds recorded that Boki was in Wai‘anae and that “Capt Meek, Chinchilla went to Wainai after tax wood.” On February 26, Meek returned from Wai‘anae with “508 piculs tax wood” (King 1989:214-215). Reynolds sailed to the leeward coast in June 1828, reporting his vessel “got 171 piculs on Board” at Makua on the 18th, but at Wai‘anae the next day, “Went ashore at daylight. Tabuiki [Kapuiki], the Head man of Wainai was in the mountains & would not come down at 10 go under weight” (King 1989:228).

Apparently, no sandalwood was loaded at Wai‘anae. The June 19, 1828 entry is the last record in Reynolds’ journal of any attempt, successful or not, to procure sandalwood at Wai‘anae. By the middle of 1828 the stands of sandalwood above the Wai‘anae coast may already have been depleted. When Boki himself supervised “collecting Sandalwood to pay [his] debts” in August 1828, he went to the Ko‘olaua (King 1989:234).

Already in October 1817, a Russian visitor noted of O‘ahu: “There are now many fields left uncultivated, since the natives are obliged to be cutting sandalwood” (Barratt 1988:218). By 1828, the disruptive force of the sandalwood commerce must have been extreme in Wai‘anae where the already limited agricultural resources would have demanded strict marshalling.

During the same decades that commercial ventures were forcing changes upon the Hawaiian landscape, western missionary interests were establishing their foothold in the islands. The American Board of Commissioners for Foreign Missions, headquartered in Boston, sent its
first company of missionaries to the Hawaiian Islands in 1819, leaving Boston on October 23rd aboard the brig Thaddeus. By the 1820s, the Protestant missionaries had established close links with the ali'i. From July to August 1826, Kaʻahumanu and an entourage consisting of up to 300 persons conducted a proselytizing tour around Oʻahu. Rev. Hiram Bingham's (1847:296-297). Account of the proceedings in Waiʻanae suggests that traditional beliefs remained strong in the district, and that its inhabitants knew how to deal with their visitors.

...we passed on round the promontory [Kaʻena Point] to Waiʻanae, the western district of Oahu, separated from the rest of the island by a range of mountains. Its valleys and plains, nearly level with the sea, are interspersed with small steep mountains. The district was called Boki’s. Here we spent the third Sabbath. While there, Kaʻahumanu spoke with concern of the stupidity of the people....

A man in the region, pretending to know something about the fabled god, Kamapuaʻa, assuming the form of a hog, was sent for to tell us what he knew; but his efforts to enlighten us on that subject, proved the ignorance, darkness, imbecility, and confusion of the heathen mind, as did also the first efforts to lead this man into the light of Christianity. He was once asked by a native teacher, at a meeting for prayer and conference, to tell his thoughts, that it might be known how he stretched forth his hand, holding a small stone, and said: “What is this? It is a stone, by which we kindle fire.” Having made some advance when we arrived and conversed with him, he said: “I have been fed with the Word of God; and Jesus Christ has given me light. I know this body of dust will soon die, but my spiritual body will continue, and it is for that I want salvation.” He continued with us several days, and had opportunity to learn something infinitely above the idle stories about Kamapuaʻa.

As we took leave of the place, the head man, Kapuiki, being personally pressed to give his heart to God without delay, said, “Such is my intention.” Such personal appeals extensively and kindly made, were generally kindly received. [Bingham 1847:297]

Censuses taken by Protestant missionaries throughout the Hawaiian Islands beginning in 1831 provide the earliest documentation of the size of the native population after the first decades of western contact. During the first census of Oʻahu in 1831-1832, the population of the Waiʻanae District totaled 1,866 people: 757 adult males, 695 adult females, and 416 children (Schmitt 1973:19). Four years later, in 1835-1836, the total district population had dropped to 1,654.

The Organic Acts of 1845 and 1846 initiated the process of the Mahale – the division of Hawaiian lands – which introduced private property into Hawaiian society. In 1848 the crown and the aliʻi (royalty) received their land titles. Waiʻanae Ahupuaʻa was retained by the crown.

Kuleana awards for individual parcels within the ahupuaʻa of the Hawaiian Islands were subsequently granted in 1850. These awards were presented to tenants - native Hawaiians, naturalized foreigners, non-Hawaiians born in the islands, or long-term resident foreigners - who could prove occupancy on the parcels before 1845.
No Wai’anae Ahupua’a kuleana were located within the project area itself. However, four kuleana are located within the present day Mauna Lahiha Beach Park northwest of the current project area. The kuleana parcels are multiple ʻāpana with the ʻāpana at the beach park assumed to be coastal house lots. These four awards reflect mid-nineteenth century land usage patterns within Wai’anae Ahupua’a. From this we can come to some conclusion about traditional subsistence patterns. It is probable that the lo‘i mentioned were associated with ʻāpana in the more mauka portions of the ahupua’a.

LCA 9479

Awarded to Kahinu who claimed to have received it during the time of Kekāuluohi. Kahinu claimed 18 lo‘i in three ʻāpana. Another interesting note is that the land was bounded on the west by the Government road which is pretty close to the present day Farrington Highway.

LCA 9480:5

Awarded 7 ʻāpana to Ohule (Sections 1-4 from Kuheleloa, Section 5 from Piispoo, Section 6 from Kao-pukea and Section 7 from Kahue) during the time of Kamehameha I.

It is probable that up to 6 of the ʻāpana were located in the well watered regions near Kamaile Point.

LCA 9489-B:1

Awarded 2 ʻāpana to Holi from Manu in the time of Kekāuluohi. The land of the claimant is a moo ʻāina called Kumumaomao in the ili of Kamaile 1, and contains 18 lo‘i and a kula in one piece.

LCA 9493

Awarded an ʻāpana to Kuheleloa from Nakoolele in the time of Liboliho. The land of the claimant is a moo ʻāina called Mooki in the ili of Kamaile 2 and contains 10 lo‘i and a kula in one piece.

Records for LCA's 9479, 9480, 9489B, and 9493 indicate that these parcels had been granted to the awardees by the konohiki Kaapuiki during the regency of Kekāuluohi from 1839 to 1845. However, it is likely that the lo‘i identified in the claims were in place well before western contact. These lo‘i would have been the remnants of a much more extensive pond field complex fed by Keko‘o a heavily flowing spring at the seaward base of Kamaile unu ridge between Wai’anae and Makaha (Figure 5) (Cordy 2002:8).

In 1851, Paul F. Manini, son of Don Francisco de Paula Marin, leased 17,000 acres in Lualualei Valley for grazing livestock. By 1863, a missionary could report that “most of the land in Wai’anae District was devoted to grazing and had already been divided ‘into six or seven divisions; and secured to as many parties or individuals on long lease or fee simple titles’” (McGrath et al. 1973:31). The experience of the maka‘āinana in Waialua likely mirrored that of the remaining Hawaiians of Wai’anae:

...the deprivations of the foreigners’ cattle had virtually reduced agriculture to the cultivation of wetland taro. For destruction of sweet potato fields and gardens of melons, bananas, maize, and other crops was causing the people to take these out of cultivation, and in some cases to take themselves out of Waialua [Kirch and Sahlin 1992:149].
A missionary account in 1863 reported that only a hundred acres were in taro in Wai‘anae Valley and that the only items for sale were fish and fungus. Censuses taken during the second half of the nineteenth century record the diminishing population of the Wai‘anae District. In 1853 a combined total of 2,451 persons were recorded in the 'Ewa and Wai‘anae districts; nineteen years later, in 1872, that total had dropped to 1,671. By 1890, when the districts were recorded separately, the population of Wai‘anae had been reduced to 903 (Schmitt 1977:12-13).

Part of the population of 903 in 1890 would have consisted of workers at the then twelve-year old Wai‘anae Plantation. The livestock industry in the islands had reached its peak in the 1870s. At Wai‘anae, a new venture arose to supplant ranching. In 1878, Hermann A. Widemann, a retired Hawaiian Supreme Court justice, leased Wai‘anae Plantation, the first sugar plantation on O‘ahu. In 1879, he leased most of Wai‘anae-Kai for 25 years (Perzenski 2003:10).

Between 1878 and 1884 the economy and community of Wai‘anae underwent a major change, in which the former Hawaiian landscape virtually disappeared. The reason was the production of sugar. The results were the conversion beginning in 1878 of coastal and central valley garden plots and irrigation system to large fields of sugar cane. This was followed by the construction, not only of the mill itself, but the creation of a whole town to support the processing of cane (Green 1980:12).

Widemann hired twenty local Hawaiians, brought in 15 technicians and almost sixty Chinese laborers. He built 24 new houses in Wai‘anae Valley and a plantation manager’s mansion on the site of Hau‘a Helaa. He built a water reservoir and installed a flume system to bring water from the reservoir to the mill. A tramway was built from the mill site to the coast where a jetty was constructed. Seven miles of track were laid to haul harvested cane to the mill. In 1880, a Chinese firm planted 122 acres of cane in Wai‘anae and employed about 30 men. One hundred and fifty acres were planted in sugar in Mākaha Valley by A. Hastings and Company (Green 1980:12). By 1884 Wai‘anae Sugar Company had 475 acres under cultivation, nine miles of railroad, and 175 men employed (Perzenski 2003:11). In 1890, Wai‘anae Sugar Company had 600 acres in cultivation. On July 4, 1895 Wai‘anae’s isolation was broken when a rail line from ‘Ewa Mill reached the Wai‘anae Sugar Company track. In 1898, the railroad was extended around Ka‘ena Point, linking Wai‘anae with Waialua on O‘ahu’s north shore (Perzenski 2003:11).

C. 1900s to Present

The sugar industry continued to dominate Wai‘anae into the twentieth century. In the early 1900s, the business area of Wai‘anae was centered around the plantation office on Old Government Road (Dung in Schilz 1994:23). Sugar was “king” in Wai‘anae until 1946, when the mill closed down.

A business directory from 1900 identified 23 taro planters in the Wai‘anae District; by the 1924 edition, only one was listed (Schilz 1994:23). Other Hawaiian traditions remained in practice at Wai‘anae into the first decades of the twentieth century; a kama‘aina reported: “...between 1910 and 1912 there lived in the Wai‘anae area about 25 kahunas known (only) to the Hawaiians” (McGrath et al. 1973:84). However, the sugar plantation continued to dominate the landscape.
Historical Background

In 1933 a Naval Ammunition Depot was opened on 4000 acres of land in the Lualualei Valley portion of Wai‘anae Ahupua‘a. During the years of World War II, Wai‘anae became the site of massive amphibious training operations, training more than 200,000 men. The sugar plantation never recovered after the war. On October 17, 1946, the stockholders of American Factors Ltd. (which had bought the plantation in 1931) voted to liquidate, eliminating the economic mainstay of the Wai‘anae Coast. Chinn Ho, head of Capital Investment Co., bought the nearly 10,000 acre plantation parcel for $1.25 million in 1947 (McGrath et al. 1973:84).

During the late 1940s, Chinn Ho was promoting the establishment of new ventures in Wai‘anae:

By 1949, [Chinn Ho] was trying to interest dairy operators in farm lots. The manager of a large dairy company in San Francisco turned down an offer of about 450,000 acres of prime sugar land in Wai‘anae Valley because “land in Hawai‘i is going to be much cheaper in the future.” The wife of local dairy operator was concerned about the schools in Wai‘anae, but her husband bought the farm anyway [McGrath et al. 1973:151].

By the late 1940s, Wai‘anae’s startling increase in population reactivated the need for new schools. In December 1947 the enrollment had been 477 students. Three years later in 1950 enrollment was up to 954. Classes were on split schedule, half the students attending in the morning, half in the afternoon. Some students were attending classes in a church building a quarter of a mile away. In 1956, construction began at Kamaile of a new high school. Wai‘anae High School opened in 1957 (McGrath 1973:156). The current project area continues to be used by Wai‘anae High School in their efforts to continue educating the youth of Wai‘anae Ahupua‘a.

Lack of water has always been an issue on the arid Leeward Coast. The water issue has been key to the development of homes and agriculturally-based businesses. Ranching still continues, though on a much smaller scale than it did in the past. New subdivisions and schools are being built to meet the demand of affordable homes and of those who prefer a rural atmosphere.
Figure 5 1884 Jackson Map Showing Project Area and Cultivated Lands along Kaupuni Stream
III. PREVIOUS ARCHAEOLOGICAL RESEARCH

Archaeological study within the Wai‘anae district suggests that the earliest permanent habitation of the district was focused in Wai‘anae Ahupua‘a along Kaupuni Stream. In an archaeological study of Mākaha (the ahupua‘a immediately adjacent to Wai‘anae), Green (1980) proposed:

The first settlement of the district was probably, as tradition tends to suggest, on the coast around the stream at the mouth of the Wai‘anae-kai Valley where the foreign chief from Kahiki planted the first coconut of the famous grove. That area, with its well-watered valley behind, would have been the most favored locality in the district... [Green 1980:72]

Archaeological investigations at Pōka‘ T Bay have processed dates for occupation of the area within the prehistoric period. During monitoring of 943 meter of sewer and waterline trenching at the Wai‘anae Army Recreation Center, Riford (1984) identified five articulated human burials, which were recovered, and a charcoal sample from the prehistoric cultural layer. The charcoal sample from the cultural layer (Layer V) yielded a radiocarbon age of A.D. 1376 +/-50 A.D. Further study at the Wai‘anae Army Recreation Center (Hammatt et al. 1985) encountered additional burials and testing of a sample from a pit feature yielded a radiocarbon date of AD 1340 +/- 6. Hammatt (et al. 1985) notes:

The archaeological assemblage points to the heavy use of the site as a communal area for fishing preparation, canoe launching and return. The site was the focus of beach access for the inhabitants of Wai‘anae-kai as well as occasional informal sand burial from at least 1300 A.D. onwards.

Inland of Pōka‘ T Bay, dates from trenches in a complex of possible taro lo‘i (wetland) were obtained: A.D. 1170-1430, 1270-1480 and 1299-1510 (Shapiro and Rosendahl 1988:32). The range of dates suggests that permanent habitation in lower Wai‘anae Ahupua‘a (where the only perennial water sources within the makai portion of the district were located) was likely established by the latter 1100s to early 1200s A.D.

The elaboration and expansion of settlement throughout the ahupua‘a during the prehistoric period is supported by the number and variety of sites recorded during the first investigation of Wai‘anae during the 1930’s. McAllister (1933) noted sixteen sites within the ahupua‘a including ten heiau (shrines), (seven of which had been destroyed), the Puehu fishpond, the Kawiwi place of refuge, and several house sites. The sites extend well mauka (toward mountain) into land adjacent to streams at the head of Wai‘anae Valley. McAllister (1933:116) recorded one burial site (Site 162) at Mauna Kāwale which may be located within the present project area; it is described as “A small cave near the top of the peak facing Kawiwi. Contains fragments of skeletal material, but none of the objects said to have been buried with the dead.”

In the adjacent Wai‘anae Regional Park parcel, southeast of the current project area a burial was exposed in 1992 after Hurricane Iniki in a limestone sinkhole. The State Historic Preservation Division made a site visit and determination was made to have the burial remain in place. No documentation was undertaken at that time. Subsequently there has been
Previous Archaeological Research

recommendation for further research specific to Wai‘anae Regional Park. No report of finding were available at this time.

Table 1 summarizes the previous archaeological investigations in Wai‘anae Ahupua‘a. These areas of investigation are illustrated in (Figure 6). The table includes the source of the study, location, type (nature) of study, and any important findings associated forthcoming from the studies.

Table 1 Previous Archaeological Studies in Wai‘anae Ahupua‘a

<table>
<thead>
<tr>
<th>REFERENCE</th>
<th>LOCATION</th>
<th>DESCRIPTION AND RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrum 1906</td>
<td>Island-wide</td>
<td>Describes numerous heiau</td>
</tr>
<tr>
<td>McAllister 1933</td>
<td>Island-wide</td>
<td>Designates sites 152-168 in Wai‘anae</td>
</tr>
<tr>
<td>Chapman 1967</td>
<td>Central Wai‘anae Valley</td>
<td>Documentation of agricultural and habitation sites in central portion of Wai‘anae Valley (Site 50-80-07-2320): 24 pieces of poi-pounders were photographed and measured.</td>
</tr>
<tr>
<td>Sinoto 1975a</td>
<td>Central coast</td>
<td>Recorded 5 sites (3 enclosures, a wall and an L-shape)</td>
</tr>
<tr>
<td>Sinoto 1975b</td>
<td>Central Wai‘anae Valley</td>
<td>Inspection of enclosure (Site 50-0a-C3-22), located in the central portion of the valley, on the eastern bank of Kaupuni Stream; determined that structure was not a heiau, but probably a habitation enclosure.</td>
</tr>
<tr>
<td>Ching 1978</td>
<td>NE Valley floor (Camp Ka‘ala)</td>
<td>Notes heiau, habitations, agriculture and burials in the vicinity</td>
</tr>
<tr>
<td>Hommon 1978</td>
<td>Kamaile</td>
<td>Describes Kamaile complex</td>
</tr>
<tr>
<td>Sinoto 1978</td>
<td>Back of valley</td>
<td>Describes a pre-contact agricultural complex</td>
</tr>
<tr>
<td>Sterling and Summers 1978</td>
<td>Island-wide</td>
<td>Compendium of data describes numerous sites</td>
</tr>
<tr>
<td>Sinoto 1979</td>
<td>Back of valley</td>
<td>Describes agricultural terraces, plots, enclosure, walls</td>
</tr>
<tr>
<td>Tao et al. 1979</td>
<td>Ku‘ilioloa Heiau</td>
<td>Ku‘ilioloa Heiau (Site 50-80-07-153): excavation undertaken; five pieces of volcanic glass, sourced to the Kolekole area of Wai‘anae.</td>
</tr>
<tr>
<td>Yent and Griffin 1979</td>
<td>NW slope</td>
<td>Describes complex of walls and platforms</td>
</tr>
<tr>
<td>Ahlo 1980</td>
<td>NW slope</td>
<td>Describes complex of mounds, walls, terrace and enclosure</td>
</tr>
<tr>
<td>Bordner 1981</td>
<td>Back of Valley</td>
<td>No sites described</td>
</tr>
<tr>
<td>Ota 1981</td>
<td>Back of valley</td>
<td>Describes boundary or ranching walls</td>
</tr>
<tr>
<td>REFERENCE</td>
<td>LOCATION</td>
<td>DESCRIPTION AND RESULTS</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rosendahl 1981</td>
<td>Central valley floor</td>
<td>Describes plantation era walls and ditches</td>
</tr>
<tr>
<td>Neller 1982</td>
<td>NE valley floor and slope</td>
<td>Describes walls and pond fields</td>
</tr>
<tr>
<td>Kam &amp; Ota 1984</td>
<td>Wai’anae Army Recreation Center</td>
<td>Two burials reported</td>
</tr>
<tr>
<td>Riford 1984</td>
<td>Wai’anae Army Recreation Center</td>
<td>Monitoring of 943 meters of sewer and waterline trenching at the Wai’anae Army Recreation Center, Site 50-0a-C3-23: Five articulated human burials were recovered from trenches at the site. One charcoal sample from the prehistoric cultural layer (Layer V) obtained a radiocarbon age of A.D. 1376+/-50 (C13 adjusted).</td>
</tr>
<tr>
<td>Hammatt et al. 1985</td>
<td>Wai’anae Army Recreation Center</td>
<td>Excavation of 42 meter-square test pits and 114 square meters at Wai’anae Army Recreation Center: Burials of at least ten individuals were found. Archaeological assemblage points to the heavy use of the site as a communal area for fishing preparation, canoe launching and return.</td>
</tr>
<tr>
<td>Hammatt et al. 1987</td>
<td>West Slope, Wai’anae Valley</td>
<td>Excavation at Site 50-80-07-3200: agricultural complex consisting of stone terraces and rock clearance mounds in level soil areas on either side of a rock spur, and was interpreted as typical of Hawaiian dry land agriculture. The two habitation features, a walled terrace, and a U-shaped shelter, both well-constructed, were excavated. A hearth feature yielded a radiocarbon date of A.D. 1630-1950. Only two artifacts and a little midden were found, suggesting minimal occupation.</td>
</tr>
<tr>
<td>Komori 1987</td>
<td>Mauna Lalahihi</td>
<td>Located 16 features of site ~3704</td>
</tr>
<tr>
<td>Douglas and Pietruszewsky 1988</td>
<td>Makaha Beach Surfside Apartments</td>
<td>Report on one burial recovered by SHPD</td>
</tr>
<tr>
<td>Shapiro and Rosendahl 1988</td>
<td>Wai’anae Kai</td>
<td>Reconnaissance survey of 250 acres of land in the central to back part of Wai’anae Valley: 34 sites were recorded, all were interpreted as historic, associated with agriculture, tool manufacture, habitation, transportation, recreation, erosion and water control. Trenching in former LCA awards area revealed gleyed deposits, possibly indicating previous taro cultivation.</td>
</tr>
<tr>
<td>REFERENCE</td>
<td>LOCATION</td>
<td>DESCRIPTION AND RESULTS</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bordner and Cox</td>
<td>Back of Wai‘anae Valley</td>
<td>Describes cattle walls, agriculture, habitation and religious complex</td>
</tr>
<tr>
<td>1988</td>
<td>Wai‘anae</td>
<td></td>
</tr>
<tr>
<td>Cleghorn 1989</td>
<td>N. Coastal Wai‘anae</td>
<td>Documents bulldozing</td>
</tr>
<tr>
<td>Masse 1989</td>
<td>East Wai‘anae Valley floor,</td>
<td>Reconnaissance of a Wai‘anae Valley Interceptor Sewer Line: Stonewalls, terraces, and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>portions of a stone enclosure were observed during survey. Survey was not completed due</td>
</tr>
<tr>
<td></td>
<td></td>
<td>to denied access by armed property owner.</td>
</tr>
<tr>
<td>Social Research</td>
<td>Back of Valley</td>
<td>Describes habitation complex</td>
</tr>
<tr>
<td>Systems Co-op</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Bordner) 1989</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kawachi 1990</td>
<td>Mauna Lahilahi</td>
<td>Field check of burial site</td>
</tr>
<tr>
<td>Douglas 1988</td>
<td>Makaha Beach Surfside Condominiums</td>
<td>Documents one burial</td>
</tr>
<tr>
<td>Kawachi 1991</td>
<td>Makaha Beach Surfside Condominiums</td>
<td>Documents burial find from 1979</td>
</tr>
<tr>
<td>(1979)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denham et al.</td>
<td>Central Coast</td>
<td>No sites</td>
</tr>
<tr>
<td>1992</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kawachi 1992</td>
<td>Wai‘anae Regional Park</td>
<td>Documents one burial</td>
</tr>
<tr>
<td>Flood et al. 1994</td>
<td>West central valley floor</td>
<td>Documents one site with 24 features including 18 sinkholes</td>
</tr>
<tr>
<td>Schilz 1994</td>
<td>Wai‘anae Army Recreation Center</td>
<td>15 burials recovered</td>
</tr>
<tr>
<td>Jourdane 1995</td>
<td>Makaha Beach Surfside Condominiums</td>
<td>Describes two burials</td>
</tr>
<tr>
<td>Kolb et al. 1995</td>
<td>Pāhe‘ehe‘e Ridge</td>
<td>Documents two shrine sites, reports five carbon dates</td>
</tr>
<tr>
<td>Collins 1996</td>
<td>No provenience</td>
<td>Bones from at least ten people (MNI) in possession of a Wai‘anae resident</td>
</tr>
<tr>
<td>Borthwick &amp;</td>
<td>West central valley floor</td>
<td>Documents six burials</td>
</tr>
<tr>
<td>Hammatt 1997</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Previous Archaeological Research

<table>
<thead>
<tr>
<th>REFERENCE</th>
<th>LOCATION</th>
<th>DESCRIPTION AND RESULTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Devereux et al. 1997</td>
<td>Wai‘anae, O‘ahu</td>
<td>Archaeological Reconnaissance Survey of the 55-Acre Freitas Dairy: Two single featured archaeological sites were identified: a bi-faced stone wall (Site 50-80-07-5493) and a single room rectangular military bunker (site 50-80-07-5494).</td>
</tr>
<tr>
<td>Kapeliela 1997</td>
<td>Central Valley</td>
<td>Documents one burial</td>
</tr>
<tr>
<td>Borthwick et al. 1999</td>
<td>Pōka‘i Bay Beach Park</td>
<td>Archaeological survey with subsurface testing at Pōka‘i Bay Beach Park: A total of thirty-four test units were excavated. No undisturbed prehistoric cultural layer or any burials were observed within any of the test units. Subsurface testing revealed extensive historic disturbance to all areas examined.</td>
</tr>
<tr>
<td>Cordy 1999</td>
<td>Kūmaipō Stream</td>
<td>Discusses numerous archaeological sites previously lumped under Site - 2951</td>
</tr>
<tr>
<td>Gora et al. 2000</td>
<td>Kūmaipō area</td>
<td>Documents a house site and terraces</td>
</tr>
<tr>
<td>Magnuson 2000</td>
<td>North coastal Wai‘anae</td>
<td>No sites</td>
</tr>
<tr>
<td>Abordo et al. 2001</td>
<td>Back of the Valley</td>
<td>Documents a house site and agricultural fields (Site - 5706)</td>
</tr>
<tr>
<td>Cordy 2001a</td>
<td>Wai‘anae Valley Ranch</td>
<td>Discusses 74 historic sites including 23 agricultural sites with hundreds of features, habitation, religious, and possible burial sites</td>
</tr>
<tr>
<td>Cordy 2001b</td>
<td>Kamaile ‘Ilī</td>
<td>Review of Mahele records</td>
</tr>
<tr>
<td>Hammatt and Shideler 2001</td>
<td>Pōka‘i Bay, just seaward of Farrington Hwy.</td>
<td>Discusses finding of three historic coffin burials</td>
</tr>
<tr>
<td>Kailala 2001</td>
<td>Back of the Valley</td>
<td>Documents a house site and agricultural fields (Site - 5705)</td>
</tr>
</tbody>
</table>
Figure 6 USGS Map Showing Locations Of Previous Archaeological Research
IV. COMMUNITY CONSULTATIONS

Throughout the course of this study, an effort was made to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about traditional cultural practices specifically related to the project area. This effort was made by letter, e-mail, telephone and in person contact. In the majority of cases, letters along with a map of the project area were mailed with the following text:

In collaboration with SSFM International, Inc., Cultural Surveys Hawai’i is conducting a Cultural Impact Assessment for the proposed State of Hawai’i Department of Accounting and General Services (DAGS) to design and construct a new single-story eight-classroom building complex at Wai‘anae High School, in the district of Wai‘anae, Island of O‘ahu. The purpose of the cultural study is to assess potential impacts to traditional cultural practices. This study is meant to satisfy requirements related to Chapter 343 HRS Articles IX and XII and Act 50 and their applicability to the project area.

We are seeking your input regarding the following issues:

General history and present and past land use of the study area.

Knowledge of cultural sites which may be impacted by the project, e.g., historic sites, archaeological sites, burials, etc.

Knowledge of traditional gathering practices in the study area—both past and present.

Cultural associations with the study area through legends, traditional use or otherwise.

Referrals of kāpuna who might be willing to share their cultural knowledge of the study area in general.

Any other cultural concerns the community might have related to Hawaiian or other cultural practices in this area of the district of Wai‘anae, Island of O‘ahu.

The individuals, organizations, and agencies we attempted to contact and the results of any consultations are presented in Table 2. Cultural Surveys Hawai’i starts out with a list of community contacts and then follows up on their referrals.
### Key:
Y = Yes  
N = No  
A = Attempted (at least 3 attempts were made to contact individual, with no response)  
S = Some knowledge of project area  
D = Declined to comment  
U = Unable to contact, i.e., no phone or forwarding address, phone number unknown  
OHA = Office of Hawaiian Affairs  
OIBC = O'ahu Island Burial Council  
SHPD = State Historic Preservation Division  
DOE = Department of Education  
HSL = Hawai'i State Legislature  
DHHL = Department of Hawaiian Home Lands  
DOA = Department of Agriculture  
NRCS = Natural Resources Conservation Service  
DLNR = Department of Land and Natural Resources

### Table 2 Community Contact and Comments

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Contacted</th>
<th>Personal Knowledge</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aila, William</td>
<td>Wai'anae Harbor Master and Hui Malama</td>
<td>Y</td>
<td>S</td>
<td>Referred to Mr. Walter Kamana</td>
</tr>
<tr>
<td>Aiu, Dr. Pua</td>
<td>OHA</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Burgess, Pua</td>
<td>Pu'a Foundation Wai'anae Cultural Center</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Cope, Agnus</td>
<td>Kupuna</td>
<td>Y</td>
<td>N</td>
<td>Contacted by her son Kamaki Kanahele. Kupuna is ill.</td>
</tr>
<tr>
<td>DeLude, Clarence</td>
<td>Principal of Our Redeemer Lutheran Private School</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Doyle, Frank J.</td>
<td>Department of Environmental</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Services</td>
<td>Y</td>
<td>S</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>---</td>
<td>---</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>DeSoto, Frenchie</td>
<td><em>Kupuna</em></td>
<td></td>
<td></td>
<td>No burials because of previous development.</td>
</tr>
<tr>
<td>Enos, Eric</td>
<td>Ka‘ala Farms</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forman, Dan</td>
<td>Wai‘anae High School Hawaiian Studies Program</td>
<td>Y</td>
<td>N</td>
<td>Referred to School Administration. Administration referred to Head Janitor Dino Pecheko</td>
</tr>
<tr>
<td>Gabbard, Mike</td>
<td>Honolulu City Council District 1</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Hanabusa, Colleen</td>
<td>HSL District 21</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Henson, Paul</td>
<td>Pacific Islands Manager</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Kamana, Walter</td>
<td><em>Kupuna</em></td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Kane, Micah</td>
<td>DHHL</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Kapeliela, Kana‘ai</td>
<td>SHPD</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Kila, Glen M.</td>
<td>Koa Mana</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Kimoto, Ernest</td>
<td>OHA</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Komori, Eric</td>
<td>SHPD</td>
<td>Y</td>
<td>Y</td>
<td>Referred to Reports on Wai‘anae.</td>
</tr>
<tr>
<td>MoEldowney, Dr. Holly</td>
<td>SHPD</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Napōka, Nathan</td>
<td>SHPD</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Oclinaria, Bella</td>
<td>Nani ‘O Wai‘anae</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Pelekai, Pikake</td>
<td>OIBC</td>
<td>Y</td>
<td>S</td>
<td>She is not from Wai‘anae. No burials or significant historical sites because of previous construction.</td>
</tr>
<tr>
<td>Silva, Alikia</td>
<td>Wai‘anae Neighborhood Board</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Shimabukuro, Maile</td>
<td>HSL District 45</td>
<td>Y</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Community Consultations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| \begin{tabular}{|l|l|l|}
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>\textbf{Yamamoto, Lawrence T.} &amp; NRCS - DOA &amp; Y A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>\textbf{Young, Peter} &amp; DLNR &amp; Y A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
\end{tabular} |
V. SUMMARIES OF KAMA‘ĀINA INTERVIEW

Two informants with knowledge of the planned project area were interviewed for this assessment. Dino Pacheko participated in an informal face-to-face interview “talk-story” session and William Āila participated in a telephone interview with Cultural Surveys Hawai‘i.

A. Dino Pacheko

Interview Summary:

Dino Pacheko was interviewed by Cultural Surveys Hawai‘i on December 31, 2003. The interview took place at Wai‘anae High School.

Dino Pacheko was raised in and presently lives in Salt Lake on the island of O‘ahu. He is presently the Head Custodian at Wai‘anae High School. We met in the school parking lot at 9 am and were driven to the site of the planned project area by his assistant, Mr. Robert Kalaola, a resident of Wai‘anae.

Mr. Pacheko specifically commented:

I was not included in the meetings of the planned project. The maps that you have brought are the first time I have seen any kind of plans for this new building. I am very familiar with the planned project area because of my job. I can take you to the area so you can become familiar with the existing buildings shown on the map. I do not know of any cultural practices of this area other than fishing makai of the school. The school is in need of new buildings and in this case there is room to build. The new building will have a nice view when finished.

B. William Āila

Interview Summary:

A telephone interview was conducted with William Āila by Cultural Surveys Hawai‘i on November 25, 2003.

William Āila was raised in Wai‘anae where he presently resides. Mr. Āila is the Wai‘anae Harbor Master where he has been employed for the past 18 years. He is a member of Hui Malama, a Hawaiian organization advocating for the proper treatment of Native Hawaiian burials.

Mr. Āila specifically commented:
Because of previous development on the property there is very little possibility of burials or archaeological sites in the planned project area. As far as the general history and land use of this area I can tell you that it was famous for fishing and had agricultural connections with taro and the village of Mā'ili. For research on early sites and the traditions refer to Sites of O'ahu. The parents of a Mrs. Colleen Hanabusa are very knowledgeable about this area and they might be willing to help you. There is also a Mr. Walter Kamana who is kama'aina of Wai'anae. Makai of the school, along the sea were places for gathering limu and salt.
VI. TRADITIONAL CULTURAL PRACTICES

This project seeks to assess traditional cultural practices as well as resources pertaining to the project area with in Wai‘anae Ahupua‘a. This section will convey the different types of traditional practices, and cultural resources associated with Wai‘anae. Excerpts from interviews are incorporated in sections where applicable.

A. Gathering for Plant Resources

Upland resources were utilized by Hawaiians for a multitude of purposes. Forest resources were gathered, not only for the basic needs of food and clothing, but for tools, weapons, canoe-building, house construction, dyes, adornment, hula, medicinal and religious purposes.

Within the project area itself no specific documentation was found in regards to gathering of plants during traditional Hawaiian times. In a telephone interview Mr. William ʻAila noted, “There were agricultural connections with taro and the village of Māʻili, northwest of the project area”. During this assessment there were no ongoing practices related to traditional gathering rights identified. None of the individuals contacted or interviewed for this assessment identified any native gathering practices within the project area.

B. Marine Resources

The sea is a rich resource and the Hawaiian people were traditionally expert fishermen. Fish of all types supplied the Hawaiian diet with a rich source of protein. The gathering of seaweeds and salt was practiced by Hawaiian women.

Mr. William ʻAila mentioned in a telephone interview, “As far as the area makai of the current project I know it was famous for fishing in the old days”. Based on this information, it is likely that there were activities related to early Hawaiian gathering practices from rich marine resources makai of the project area. Today members of the Wai‘anae community continue to fish along the shoreline makai of the project area.

C. Historic Properties

During this assessment there were no historic properties [archaeological sites] identified within the vicinity of the proposed project area.

D. Burials

No specific documentation was found regarding ʻiwi (bone) in the project area. In a personal communication by telephone Kupuna Frenchie DeSoto mentioned, “Due to previous development I doubt if there are any burials in the area where they are planning to build”. None of the people contacted mentioned any burials that would be affected by the proposed project.

Adjacent to the project area in Wai‘anae Regional Park however, based on State Historic Preservation Division of the Department of Land and Natural Resources [personal communication with SHPD] a burial was exposed by Hurricane Iniki in 1992 in a sinkhole. The burial was “left in place” by the SHPD staff.
E. Trails

Trails served to connect the various settlements throughout the District of Wai'anae (Figure 7). Based on nineteenth and twentieth century maps the primary transportation routes mauka/makai correlated closely to the existing major roadways. No other specific historical documentation was found identifying any trails within the current project area.
Figure 7 Trails Of Leeward O'ahu as described by 'i'; Map by Paul Rockwood
VII. SUMMARY AND RECOMMENDATIONS

A. Summary

Historic documentation for the Wai'anae District in which the present project area is located suggests the district's significance and association with the ali`i (royalty) in prehistoric times. The district is a focus in the mythological cycles of Maui, Kamapua'a, and Kamohala'i. By the time of the first contact with European expeditions during the latter eighteenth century, Wai'anae Valley appeared to remain the primary place of settlement within the Wai'anae district. Mid-nineteenth century Mahele documentation indicates that there were habitation sites and ʻIo'i in the vicinity of the project area. Since 1957 the project area has been a portion of the Wai'anae High School grounds.

Archaeological study within the Wai'anae district suggests that the earliest permanent habitation of the district was focused in Wai'anae Ahupua'a along Kaupuni Stream.

The elaboration and expansion of settlement throughout the ahupua'a during the prehistoric period is supported by the number and variety of sites recorded during the first investigation of Wai'anae during the 1930's and in subsequent investigations throughout the twentieth century century.

No traditional burials have been documented within the present project area. The incorporation of the project area within the high school grounds since the 1950s has eliminated any surface sites related to traditional Hawaiian culture that may have been present formerly. In the absence of surface evidence, traditional practices within the region including the present project area may have consisted of both permanent habitation sites and temporary camps associated with fishing and other ocean gathering activities.

Interviews were conducted with two members of the Wai'anae community. One interviewee noted that in traditional times the area maka'i of the project area was most likely used for various fishing activities by early Hawaiians. The other interviewee mentioned the need for a new building at Wai'anae High School.

B. Recommendations

Based on the above findings, the proposed project will have minimal or no impact on Hawaiian culture, its practices and traditions.

It should be noted, however, that subsurface properties associated with former traditional Hawaiian activities in the project area, such as artifacts and cultural layers, may be present despite the previous development of Wai'anae High School. As a precautionary measure, personnel involved in future development activities in the area should be informed of the possibility of inadvertent cultural finds, and should be made aware of the appropriate notification measures to follow.
VIII. BIBLIOGRAPHY


Apple, Russell A. 1978 Pahukanilua: Homestead of John Young, Kawaihae, Kohala, Island of Hawai‘i, Pu‘u Kohola Heiau National Historic Site, National Park Service, Hawai‘i State Office, Honolulu, HI.


Bingham, Hiram 1847 A Residence of Twenty-One Years in the Sandwich Islands, Huntington, Hartford CN., Converse, N.Y. [Praeger Publishers, Hartford 1822]


Bordner, Richard and David W. Cox 1988 Upper Makaha Valley Mapping Project, Unit 1: Sites 764 and 996 and Unit 2: Site 771, Social Research Systems Co-op, Honolulu, HI.


Chapman, Peter 1997 Inadvertent Discoveries of Human Skeletal Remains, Church of Jesus Christ of Latter Day Saints (LDS), Pu‘u Kahea, Wai‘anae, O‘ahu Island Hawai‘i, (TMK 8-3-03:25) Cultural Surveys Hawai‘i, Kailua, HI.
1967  Waianae-Kai Pounder Workshop Area. Ms. on file, Anthropology Department, B.P. Bishop Museum Honolulu

Ching, Francis K.W.

Cleghorn, Paul L.
1997  The Results of an Archaeological Inventory Survey in Coastal Mākaha, Waianae, O‘ahu, Hawai‘i (TMK 8-4-2:47), Pacific Legacy, Inc. 332 Ulunui Street, Kailua, HI.

Collins, Sara

Cordy, Ross
2001  Waianae Valley Ranch Archaeological Survey, Waianae Ahupua‘a, Moku O Waianae, O‘ahu (TMK 8-5-06:1), State Historic Preservation Division, Department of Land and Natural Resources, Honolulu, HI. 1999


1998  Ka Moku o Waianae: He Mo‘olelo o Ka Wa Kahiko, State Historic Preservation Division, Honolulu, HI.

1997  Archaeological Survey in Upper Waianae Valley, Waianae Ahupua‘a, Waianae District, O‘ahu, Summer Fieldwork, TMK 8-5-6:11, State Historic Preservation Division, State of Hawai‘i, Honolulu, HI.

1991  Report on a Child’s Skeleton Recovered from the Beach at Makaha Surfside Apartments, SHPO, Honolulu, HI.
Corney, Peter  
1896  *Voyages in the Northern Pacific*. Narrative of Several Trading Voyages form 1813 to 1818 between the Northwest Coast of America. The Hawaiian Islands and China, with a Description of the Russian Establishments on the Northwest Coast with Preface and Appendix of Valuable Confirmatory Prepared by Prof. W. D. Alexander, Thos. G. Thrum, Honolulu, HI.

Denham, Tim, Joseph Kennedy, and Laura Reintsema  

Devereux, Thomas K., Rodney Chiojiogi and Hallett H. Hammatt  
1997  *Archaeological Reconnaissance Survey of the 55-Acre Freitas Dairy (TMK 8-5-04: 01, 58, and 41 por.)*, Cultural Surveys Hawaii, Kailua, HI.

Douglas, Michele T. and Michael Piertsewsky  
1988  *Human Remains at Mākahā Beach, Mākahā, O'ahu, TMK 8-5-17:00. Site 80-07-4064, Police Report, Medical Examiner's Report and Physical Anthropologist's Report, UH-Manoa, Honolulu, HI.

Dung, Albert in Allan Sc nit z  
1994  *Preliminary Draft: Subsurface Archaeological Intensive Survey and Data Recovery and Construction Monitoring and Sampling at Wai'anae Army Recreation Center (WARC), Wai'anae, O'ahu Island, Hawai'i*: A report prepared by Ogden Environmental & Energy Services Co., Honolulu, Hawai'i.

Flood, Krista, Paul Christian Klieger, Susan A. Lebo, Boyd Dixon, Stephan D. Clark and Scot Parry  
1994  *An Archaeological Inventory Survey and Mitigation Plan of a Seven Acre Parcel (TMK: 8-5-28:Por. 42) in Wai'anae Kai Ahupua'a Wai'anae District, O'ahu Island, Hawaii)* Anthropology Department, Bishop Museum, Honolulu HI

Foote, Donald E., E. L. Hill, S. Nakamura and F. Stephens  

Foreign Testimony
1848-1850 Foreign Testimony of Kuleana Claims to Quiet Land Titles in the Hawai‘i Islands, State of Hawai‘i Archives, Honolulu, HI.

Gast, Ross J.

Giambelluca, Thomas W., Michael A. Nullet and Thomas A. Schroeder
1986 Rainfall Atlas of Hawai‘i, Department of Land and Natural Resources, Honolulu, HI.

Gora, Georgette, Shane Kaleleiki, Joseph Enaena, Jared Evans, Keoni Kahakeli, OlanaKamohali‘i, Makamae Choy, Mentor, Ross Cordy, Archaeologist
2000 A Link to Our Future Through our Past, Our Archaeological Studies at Site 5858, A House Site and its Irrigated Kalo Terraces in the Kūmaipō Area of Wai‘anae Valley, Wai‘anae High School Hawaiian Studies Program, Wai‘ane, HI.

Green, Roger C.

Hammatt, Hallett H., Douglas F. Borthwick and David Shideler
1985 Reconnaissance Survey of the Proposed Makaha Mid-Valley Well, Makaha, Wai‘anae, O‘ahu, Cultural Surveys Hawaii, Kailua, HI.

Hommon, Robert J.
1978 Wai‘anae (Kamaile Complex), O‘ahu 80-07-1181 and Ho‘okana Project. State Historic Preservation Division

Jourdane, Elaine
1995  Inadvertent Discovery of Human Remains at Makaha Surfside Condominiums, Makaha, Waianae, Oahu, SHPD, Honolulu, HI.

Kam, Wendell and Jason Ota
1984  Burial Report: Waianae Army Recreation Center, Waianae, Oahu, TMK 8-5-01:09. SHPO, Honolulu, HI.

Kamakau, Samuel Manuiakalani
1992  Ruling Chiefs of Hawai‘i (Revised Edition), The Kamehameha Schools Press, Honolulu, HI.

1870  Kamao 'Ohele O Hawai‘i, Volume I Chapter 1, Honolulu, HI.

Kawachi, Carol T.
1992  Mā'āna Burials Exposed by Hurricane 'Iniki, TMK 8-4-09:5, State Historic Preservation Division, DLNR, Honolulu, HI.

1991  Makaha Surfside Burial (1979): Artifacts, Kamaile, Wa‘ianae, O‘ahu, TMK 8-5-17:005, State Site No. 80-7-4064, SHPD, Honolulu, HI.

1990  Mauna Lahiha Crevice Burials, Makaha, Wai‘anae, O‘ahu, SHPD, Honolulu, HI.

Kapeliela, Kana‘i
1997  Archaeological Survey with Subsurface Testing at Pōka‘i Bay Beach Park, SHPD, Honolulu, HI.

Kennedy, Joseph
1986  Archaeological Investigations at Mauna Lahiha, Wa‘ianae, Island of O‘ahu, (TMK 8-4-1:8 & 9; 8-4-3:11, 8-4-4:1:5 & 9), Archaeological Consultants of Hawaii, Inc., Honolulu, HI.

1983  An Archaeological Monitoring Report at Well IV, Makaha Valley, Oahu (TMK 8-4-02), Archaeological Consultants of Hawaii, Inc., Honolulu, HI.

King, Pauline N., editor

Kaika‘a, Sam.  Thomas Kaleiopu, Oiana Kamohali‘i, Kyle Kapahu, Roxanne Medeiros, Miquel Perez, Marcus Langford, Mentor and Ross Cordy, Archaeologist.
<table>
<thead>
<tr>
<th>Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td><em>Archaeological Work at Site 5705, Upper Wai'anae High School</em>, Hawaiian Studies Program, Wai'anae, HI.</td>
</tr>
<tr>
<td>1995</td>
<td><em>Archaeological Survey and Excavations at Pahe'ehe'e Ridge, Wai'anae Ahupua'a, Wai'anae District, Island of Hawaii [Oahu]</em>, Historic Preservation Division, DLNR, State of Hawaii, Honolulu, HI.</td>
</tr>
<tr>
<td>1987</td>
<td><em>Archaeological Survey &amp; Testing of Mauna Lalahi, Wai'anae District, Island of O'ahu</em>, Department of Anthropology, Bishop Museum, Honolulu, HI.</td>
</tr>
<tr>
<td>1987</td>
<td><em>Archaeological Survey &amp; Testing of Mauna Lalahi, Wai'anae District, Island of O'ahu</em>, Department of Anthropology, Bishop Museum, Honolulu, HI.</td>
</tr>
<tr>
<td>2001</td>
<td><em>Archaeological Studies at Site 5706, Wai'anae Valley, O'ahu</em>, Wai'anae High School, Hawaiian Studies Program.</td>
</tr>
<tr>
<td>2000</td>
<td><em>Archaeological Monitoring During Underground Storage Tank Removal, Hickam Air Force Base, O'ahu, Hawai'i</em>, IARII, Honolulu, HI.</td>
</tr>
<tr>
<td></td>
<td>Masse, W. Bruce</td>
</tr>
</tbody>
</table>
1989  A Preliminary Reconnaissance of the Proposed Route for the Wai'anae Valley Gravity Sewer. Ms. of File Department of Hawaiian Home Lands, DLNR, Honolulu, HI

McAllister, J. G.

McDermott, Matthew and Hallett H. Hammatt
2000  Archaeological Inventory Survey of the 57.65 Acre 'Ulehawa Beach Park Parcel, Ahupua'a of Lualualei, Wai'anae District, Island of O'ahu, (TMK:8-7--05:01,03 and 05; 8-7-06:03; 8-7-07:01, 8-7-08:26), Cultural Surveys Hawaii, Kailua, HI.

McGuire, Ka'ohulani and Hallett H. Hammatt
2001  A Traditional Practices Assessment for Portions of the Proposed Wai'anae Coast Emergency Access road at Nānākuli, Lualualei, Mā'ili, Wai'anae and Mākaha, Wai'anae District, Island of O'ahu, Cultural Surveys Hawai'i, Inc., Kailua, HI.

McGrath, E. J., Jr., K. M. Brewer and Robert Krauss
1973  Historic Wai'anae, A Place of Kings, Island Heritage Ltd., Norfolk Island, Australia.

Native Register
1847-53  Native Register of Kuleana Claims to Quiet Land Titles in the Hawai'i Islands, State of Hawai'i Archives, Honolulu, HI.

Native Testimony
1847-53  Native Testimony of Kuleana Claims to Quiet Land Titles in the Hawai'i Islands, State of Hawai'i Archives, Honolulu, HI.

Neller, Earl
1982  An Archaeological Reconnaissance Survey in a Portion of Wai'anae Kai, O'ahu State Historic Preservation Division

Ota, Jason

Perzenski, David
An Archaeological Inventory Survey Report for Proposed Improvements at Mauna Lahihi Beach Park in the Ahupua’a of Wai’anae, District of Wai’anae, Island of O’ahu

Pukui, Mary Kawena  

Riford, Mary F.  
1984 Report of Archaeological consulting Services During Repair of Sower Lines at Wai’anae Army Recreation Center, O’ahu. Ms. on file, Anthropology Department, Bernice P. Bishop Museum, Honolulu, HI.

Rosendahl, Paul H.  
1981 Archaeological Reconnaissance Survey of the Wai’anae Valley Road Improvements Alignment, Wai‘anae, Oahu, PHRI, Hilo, HI.

Schmitt, Robert C.  

Schilz, Allan J.  
1994 Preliminary Draft, Subsurface Archaeological Intensive Survey and Data Recovery and Construction Monitoring and Sampling at Wai‘anae Army Recreation Center (WARC), Wai‘anae, O‘ahu Island, Hawai‘i, Ogden Environmental and Energy Services Co., Inc., Honolulu, HI.

Sinoto, Akihiko  
1979 Archaeological Reconnaissance Survey of Proposed Water Well, Wai‘anae, Oahu, Hawaii, Ms. on file Bishop Museum, Honolulu, HI.

1978 Reassessment of 10 Acres in Wai‘anae Valley, Island of O‘ahu, Ms. on File Bishop Museum, Honolulu, HI.

1975 Archaeological Reconnaissance Survey of the Wai‘anae Light-draft Harbor Project Site, Wai‘anae, O‘ahu Ms. on file Bishop Museum Honolulu, Honolulu, HI.

1975 Field Inspection of Site 50-Oa-C3-22; An Enclosure in Wai‘anae Valley, O‘ahu Ms. on file, Bishop Museum Honolulu

Schmitt, Robert C.  
1977 Historical Statistics of Hawai‘i, The University of Hawai‘i Press, Honolulu, HI.
Bibliography

Shaprio, William A., James D. Mayberry, Alan E. Haun
1988 Archaeological Reconnaissance Survey and Limited Subsurface Testing, Waikane Golf Course Project Area, Land of Waikane, Ko‘olau District, Island of O‘ahu (TMK 4-8-04:004, 005; 4-8-06:008; 4-8-14:004), PHRI, Hilo, HI.

Sinoto, Akihiko
1978 Archaeological and Paleontological Salvage at Barbers Point, O‘ahu, Ms. 030178, Department of Anthropology, Bishop Museum, Honolulu, HI.

1979 Archaeological Reconnaissance Survey of Proposed Water Well, Wai‘anae, Oahu, Hawai‘i, Bishop Museum, Honolulu, HI.

Social Research Systems Co-op
1990 Archaeological Monitoring of Diamond Head Road 12-Inch Main Replacement Social Research Systems Co-op, Honolulu, HI.

Sterling, Elspeth P. and Catherine C. Summers
1978 Sites of O‘ahu, Department of Anthropology, B.P. Bishop Museum, Honolulu, HI.

Tao, G.K.
1979 Archaeological Research for the Ku‘ilimao Heiau Restoration Project, Poka‘i, Wai‘anae, O‘ahu, Bishop Museum, Honolulu, HI.

Te Rangi Hiroa
1968 Arts and Crafts of Hawai‘i, Section VII. Fishing, Bishop Museum Press, Honolulu, HI.

Thrum, Thomas G.
1906 Heiaus and Heiau Sites Throughout the Hawaiian Islands, IN Thos. G. Thrum, compiler, Hawaiian Almanac and Annual for 1907, pp. 38-47, Honolulu, HI.

Yent, Martha & Agnes Griffin
1979 Archaeological Reconnaissance Survey of Water Well and Access Road Project in Wai‘anae Valley, Oahu, State Parks, Department of Land and Natural Resources, SHPD, Honolulu, HI.
CERTIFICATION

I HEREBY CERTIFY THAT THE MICROPHOTOGRAPH APPEARING IN THIS REEL OF FILM ARE TRUE COPIES OF THE ORIGINAL DOCUMENTS.

2005

DATE

SIGNATURE OF OPERATOR